ATTACHMENT B. WETLAND DELINEATION MAPS

6,805,000

6,806,000

6,807,000

2,043,000

2,042,000

JUNIPER LN

MIDLAND RD

LAUREL LN

HIGHLAND RD

BOULDER RD

TWIN ROCKS RD

VOGEL VALLEY RD

RIP

OR_2 TR_2 PIT_B

OR_2 TR_2 PIT_A

SW

T:\GIS\ENTRIX\3039303_FolsomDam\map\Wetland_Delineation_Report\FolsomDam_WetlandMaps_17i11i_02.mxd

Wetland Delineation Map Series

Sheet 01

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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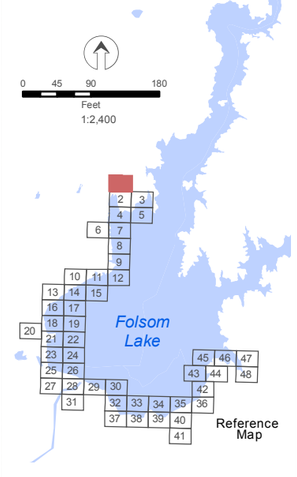
Feet
1:2,400



ENTRIX

6,805,000

6,806,000

6,807,000

2,041,000

2,040,000

VOGEL VALLEY RD

OR_2 TR_2 PIT_B

OR_2 TR_2 PIT_A

OR2_TR1_PIT B

OR2_TR1_PIT A

OR_3 TR_1 PIT_B

OR_3 TR_1 PIT_A

SW

RIP

FLUC

Wetland Delineation Map Series

Sheet 02

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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Feet
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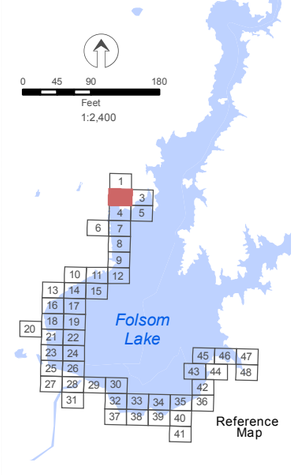

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6,807,000

6,808,000

6,809,000

2,041,000

2,040,000

W22_TR1_PIT B
W22_TR1_PIT B

W22_TR1_PIT A
W22_TR1_PIT A

RIP

FLUC

WAT
Other Waters of the U.S.

Wetland Delineation Map Series

Sheet 03

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC — FLUCTUATION ZONE
- FWM — FRESHWATER MARSH
- RIP — RIPARIAN
- RIP — RIPARIAN (Willow)
- RIP — RIPARIAN (Willow/Cottonwood)
- SW — SEASONAL WETLAND
- WAT — WATER

Wetland Field Survey Conducted By:

Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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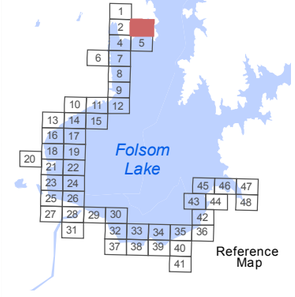
Feet
1:2,400



Reference Map

ENTRIX

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6,805,000

6,806,000

6,807,000

2,039,000

2,038,000

TR W2 - PIT C

TR W2 - PIT D

RIP

TR W2 - PIT B

TR W2 - PIT A

FLUC

TR W1 - PIT D

TR W1 - PIT C

TR W1 - PIT B

TR W1 - PIT A

TR W1 - VEG

WAT
Other Waters of the U.S.

Wetland Delineation Map Series

Sheet 04

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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Feet
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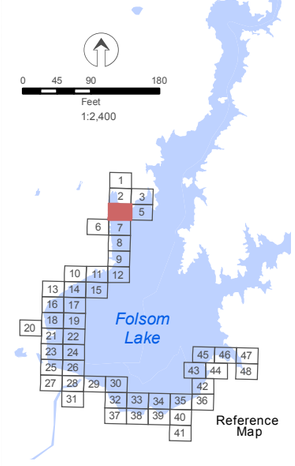

ENTRIX

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6,808,000

6,809,000

2,039,000

2,038,000

RIP

FLUC

W23_TR1_PIT A
W23_TR1_PIT A

WAT
Other Waters of the U.S.

Wetland Delineation Map Series

Sheet 05

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:

Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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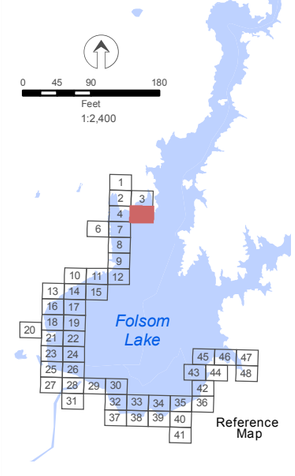
Feet
1:2,400



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6,803,000

6,804,000

2,038,000

2,037,000

MORNINGSIDE DR

ADAM CT

HALEY DR

HIDDEN LAKES DR

OR10_TR1_PIT A

OR8_TR1_PIT A

OR9_TR1_PIT A SW

WOODBOROUGH DR

KIRK CT

W HIDDEN LAKES DR

E HIDDEN LAKES DR

MICHAEL CT

W GRANITE DR

CAPELLA DR

T:\GIS\ENTRIX\3039303_FolsomDam\map\Wetland_Delineation_Report\FolsomDam_WetlandMaps_17i11i_02.mxd

Wetland Delineation Map Series

Sheet 06

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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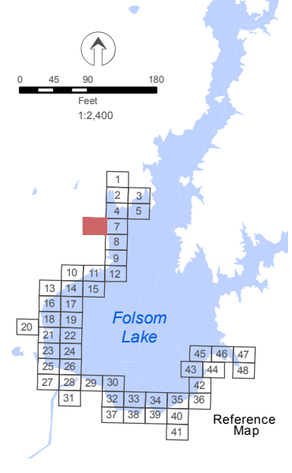
Feet
1:2,400



Reference Map

ENTRIX

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6,806,000

6,807,000

2,038,000

2,037,000

OR10_TR1_PIT A

OR8_TR1_PIT A

OR9_TR1_PIT A SW

FLUC

WAT
Other Waters of the U.S.

RIP

TR W3 - VEG

TR W3 - PIT A

TR W3 - PIT B

T:\GIS\ENTRIX\3039303_FolsomDam\map\Wetland_Delineation_Report\FolsomDam_WetlandMaps_17i11i_02.mxd

Wetland Delineation Map Series

Sheet 07

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

0 45 90 180
Feet
1:2,400

Folsom Lake

Reference Map

ENTRIX

6,805,000

6,806,000

6,807,000

2,036,000

2,035,000

TR W3A - PIT C

RIP

WAT
Other Waters of the U.S.

FLUC

Wetland Delineation Map Series

Sheet 08

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SWL SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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Feet
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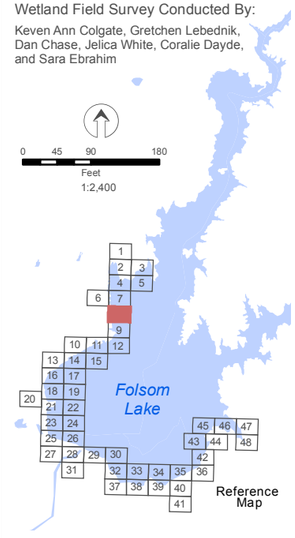

Reference Map

ENTRIX

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6,805,000

6,806,000

6,807,000

2,034,000

2,033,000

SW

TR W4 - PIT B

TR W4 - PIT A

TR W4 - VEG

FLUC

DOUGLAS BLVD

TR W4 - PIT C

WAT
Other Waters of the U.S.

T:\GIS\ENTRIX\3039303_FolsomDam\map\Wetland_Delineation_Report\FolsomDam_WetlandMaps_17i11i_02.mxd

Wetland Delineation Map Series

Sheet 09

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC — FLUCTUATION ZONE
- FWM — FRESHWATER MARSH
- RIP — RIPARIAN
- RIP — RIPARIAN (Willow)
- RIP — RIPARIAN (Willow/Cottonwood)
- SW — SEASONAL WETLAND
- WAT — WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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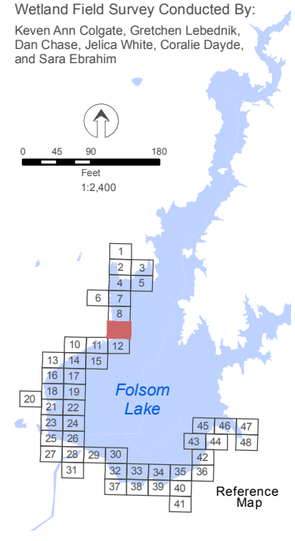
Feet
1:2,400



ENTRIX

6,800,000 6,801,000 6,802,000

2,032,000

2,031,000

SILVER TREE PL
FULLER DR
PENDLETON DR
SPOONER CT
BRONSON DR
RED BUD RD
LUPIN LN
HILL RD
CREST CT
MOONEY RD
HILL RD
BAINBRIDGE CT
WEATHERBY CT
BRONSON DR
RIDGE WAY
SIERRA DR
LAKESHORE DR
LAKE CT
DR
FLUC
TR W7 - PIT C

T:\GIS\ENTRIX\3039303_FolsomDam\map\Wetland_Delineation_Report\FolsomDam_WetlandMaps_17i11i_02.mxd

Wetland Delineation Map Series

Sheet 10

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUCTUATION ZONE
- FRESHWATER MARSH
- RIPARIAN
- RIPARIAN (Willow)
- RIPARIAN (Willow/Cottonwood)
- SEASONAL WETLAND
- WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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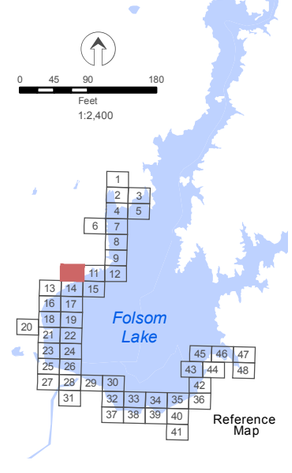
Feet
1:2,400



ENTRIX

6,803,000

6,804,000

2,032,000

2,031,000

HILL RD

SIERRA DR

LAKESHORE DR

MOONEY RD

TR W6 - PIT B

TR W6 - PIT A

TR W6 - VEG

FLUC

WAT
Other Waters of the U.S.

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Wetland Delineation Map Series

Sheet 11

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC — FLUCTUATION ZONE
- FWM — FRESHWATER MARSH
- RIP — RIPARIAN
- RIP — RIPARIAN (Willow)
- RIP — RIPARIAN (Willow/Cottonwood)
- SW — SEASONAL WETLAND
- WAT — WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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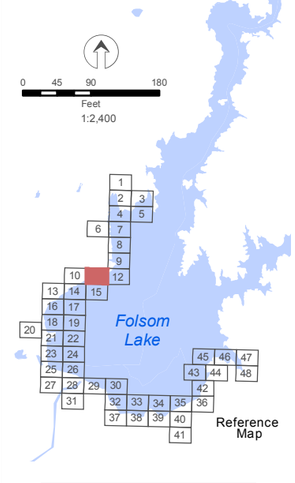
Feet
1:2,400



Reference Map

ENTRIX

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6,806,000

6,807,000

2,032,000

2,031,000

FLUC

WAT
Other Waters of the U.S.

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Wetland Delineation Map Series

Sheet 12

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:

Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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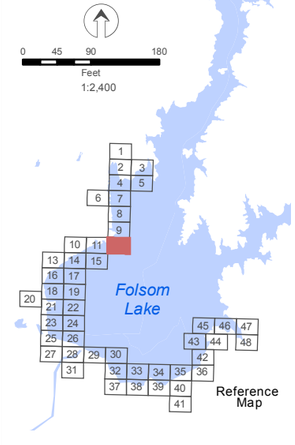
Feet
1:2,400



ENTRIX

6,798,000

6,799,000

2,031,000

2,030,000

EUREKA RD

JAY LN

LAKETRAIL CT

LINDA CREEK

AUBURN FOLSOM RD

ANN PL

COUNTRY CT

LINDA CREEK

BELOR

TR W8 - PIT B

TR W8 - PIT A

FLUC

Wetland Delineation Map Series

Sheet 13

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC — FLUCTUATION ZONE
- FWM — FRESHWATER MARSH
- RIP — RIPARIAN
- RIP — RIPARIAN (Willow)
- RIP — RIPARIAN (Willow/Cottonwood)
- SSW — SEASONAL WETLAND
- WAT — WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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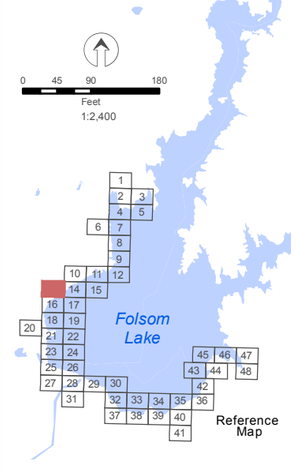
Feet
1:2,400



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6,800,000 6,801,000 6,802,000

2,031,000

2,030,000

TR W7 - PIT C

TR W7 - PIT B

TR W7 - PIT A

RIP

FLUC

TR W7 - VEG

TR W8 - PIT B

TR W8 - PIT A

TR W8 - VEG

WAT
Other Waters of the U.S.

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Wetland Delineation Map Series

Sheet 14

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SWL SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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Feet
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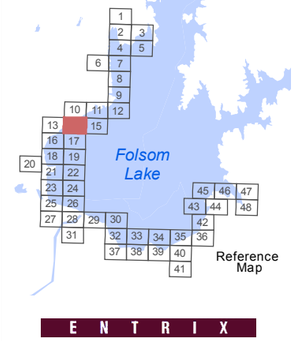

Reference Map

ENTRIX

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2,030,000

FLUC

WAT
Other Waters of the U.S.

TR W7 - VEG

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Wetland Delineation Map Series

Sheet 15

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:

Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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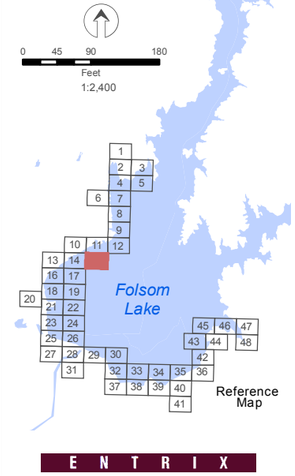
Feet
1:2,400



ENTRIX

6,798,000

6,799,000

2,029,000

2,028,000

BELL

AUBURN FOLSOM RD

FLUC

WAT
Other Waters of the U.S.

Wetland Delineation Map Series

Sheet 16

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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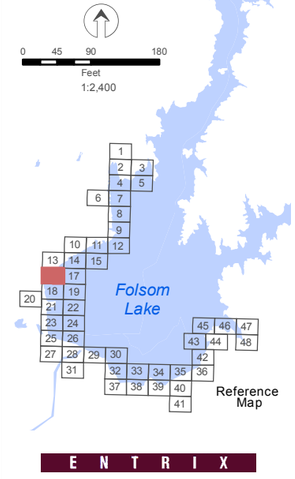

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TR W8 - VEG
FLUC

WAT
Other Waters of the U.S.

Wetland Delineation Map Series

Sheet 17

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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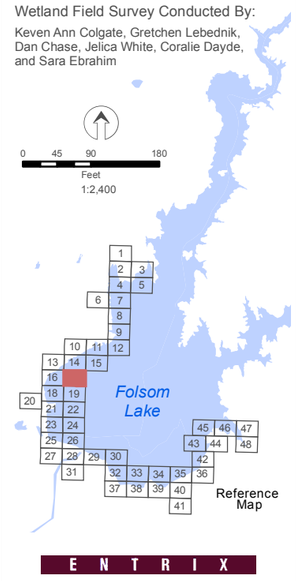

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2,026,000

LOU PL

WAT
Other Waters of the U.S.

FLUC

OR_1 TR_1 PIT_A

OR_1 TR_1 PIT_B

OR_1 TR_2 PIT_B

OR_1 TR_2 PIT_A

OR_1 TR_3 PIT_B

SW

OR_1 TR_3 PIT_A

TR W5 - VEG

TR W5 - PIT A

TR W5 - PIT B

TR W5 - PIT C

RIP

TR W9 - PIT B

TR W9 - PIT C

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Wetland Delineation Map Series

Sheet 18

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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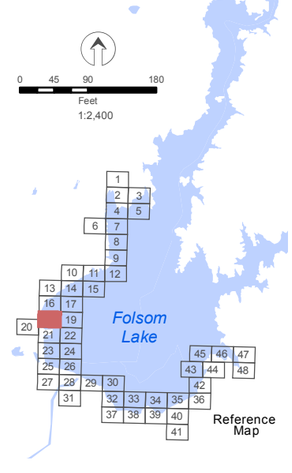

Reference Map

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WAT
Other Waters of the U.S.

TR W9 - VEG

TR W9 - PIT A
FLUC

Wetland Delineation Map Series

Sheet 19

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:

Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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Feet
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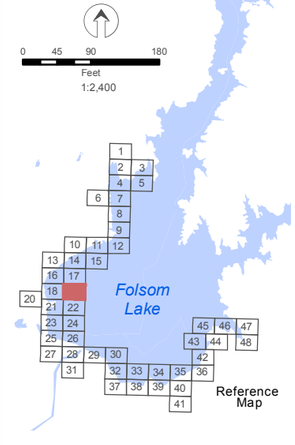

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LOU PL

EDWARD CT

LOU PL

CROWN POINT VIS

CROWN POINT VISTA RD

AUBURN FOLSOM RD

OR_1 TR_3 PIT_A

SW

OAK LEAF WAY

WOODCHASE DR

LAKE VIEW DR

RESERVOIR DR

AUBURN FOLSOM RD

Wetland Delineation Map Series

Sheet 20

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC — FLUCTUATION ZONE
- FWM — FRESHWATER MARSH
- RIP — RIPARIAN
- RIP — RIPARIAN (Willow)
- RIP — RIPARIAN (Willow/Cottonwood)
- SW — SEASONAL WETLAND
- WAT — WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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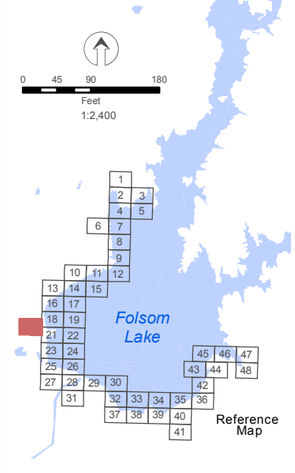

Reference Map

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2,026,000

2,025,000

SW

RIP

TR W9 - PIT C

TR W10 - PIT C

TR W10 - PIT B

TR W10 - VEG

TR W10 - PIT A

FLUC

WAT
Other Waters of the U.S.

Wetland Delineation Map Series

Sheet 21

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUCTUATION ZONE
- FRESHWATER MARSH
- RIPARIAN
- RIPARIAN (Willow)
- RIPARIAN (Willow/Cottonwood)
- SEASONAL WETLAND
- WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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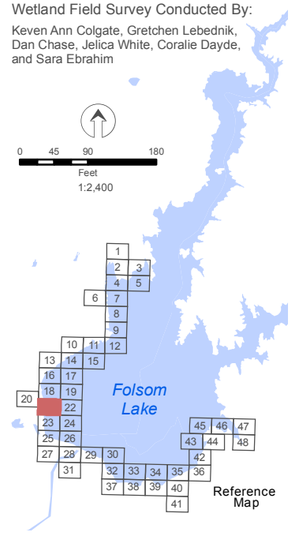

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FLUC

TR W10 - VEG

TR W10 - PIT A

WAT
Other Waters of the U.S.

Wetland Delineation Map Series

Sheet 22

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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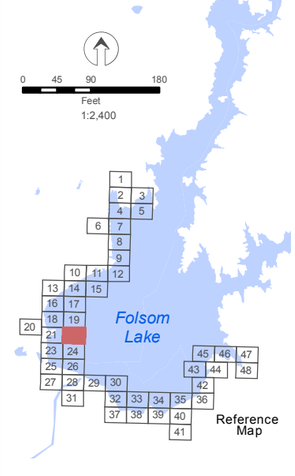

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FLUC

WAT
Other Waters of the U.S.

DAM RD

Wetland Delineation Map Series

Sheet 23

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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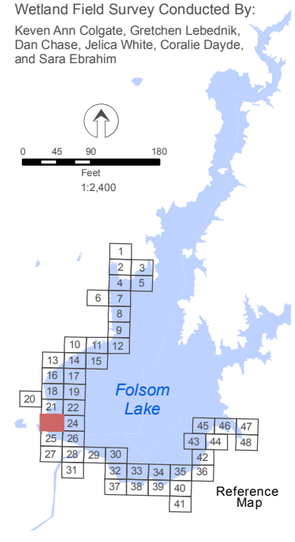

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FLUC

WAT
Other Waters of the U.S.

Wetland Delineation Map Series

Sheet 24

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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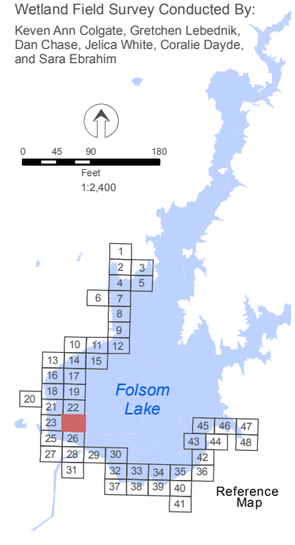

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WAT
Other Waters of the U.S.

RIP

PINEBROOK DR

LEAFWOOD WAY

ROCKGLEN RD

FOLSOM AUBURN RD

DAM RD

NUGGET DR

DANIELLE WAY

LAKESIDE WAY

PARKSTONE WAY

FOLSOM DAM RD

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Wetland Delineation Map Series

Sheet 25

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SSW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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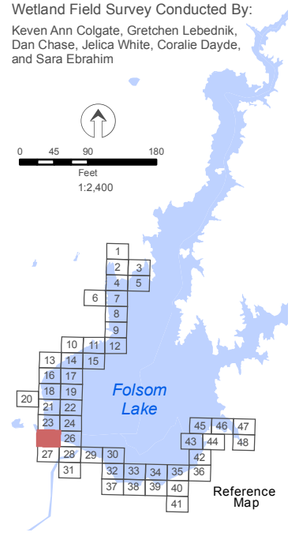

Reference Map

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WAT
Other Waters of the U.S.

DAM RD

FOLSOM DAM RD

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Wetland Delineation Map Series

Sheet 26

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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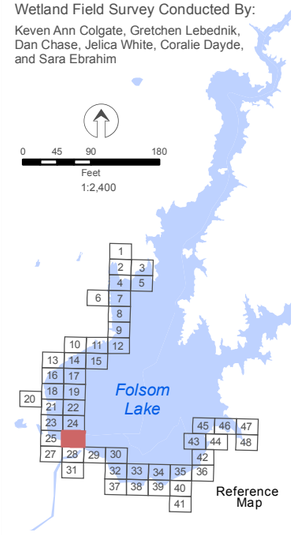

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SOUTHWOOD DR
GRANITEWOOD DR
NUGGET DR
DANIELLE WAY
RAYMOND LN
SCOTT CT
CHRISTOPHER ST
ALLAN CT
MARY CT
DANIELLE WAY
LAKESIDE WAY
FOLSOM AUBURN RD
FOLSOM DAM RD
PIERPOINT DR
PIERPOINT DR
FOLSOM DAM RD
HANNAFORD CT
LAKESIDE WAY
BLUEBIRD LN
FOLSOM AUBURN RD
LARK LN
BLUEBIRD LN
ROBIN LN

Wetland Delineation Map Series

Sheet 27

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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Feet
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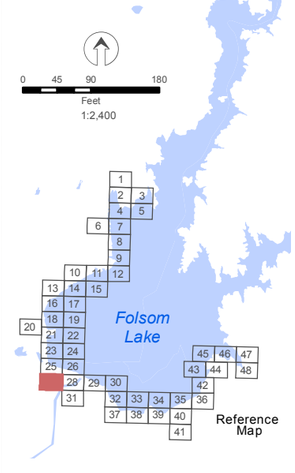

Reference Map

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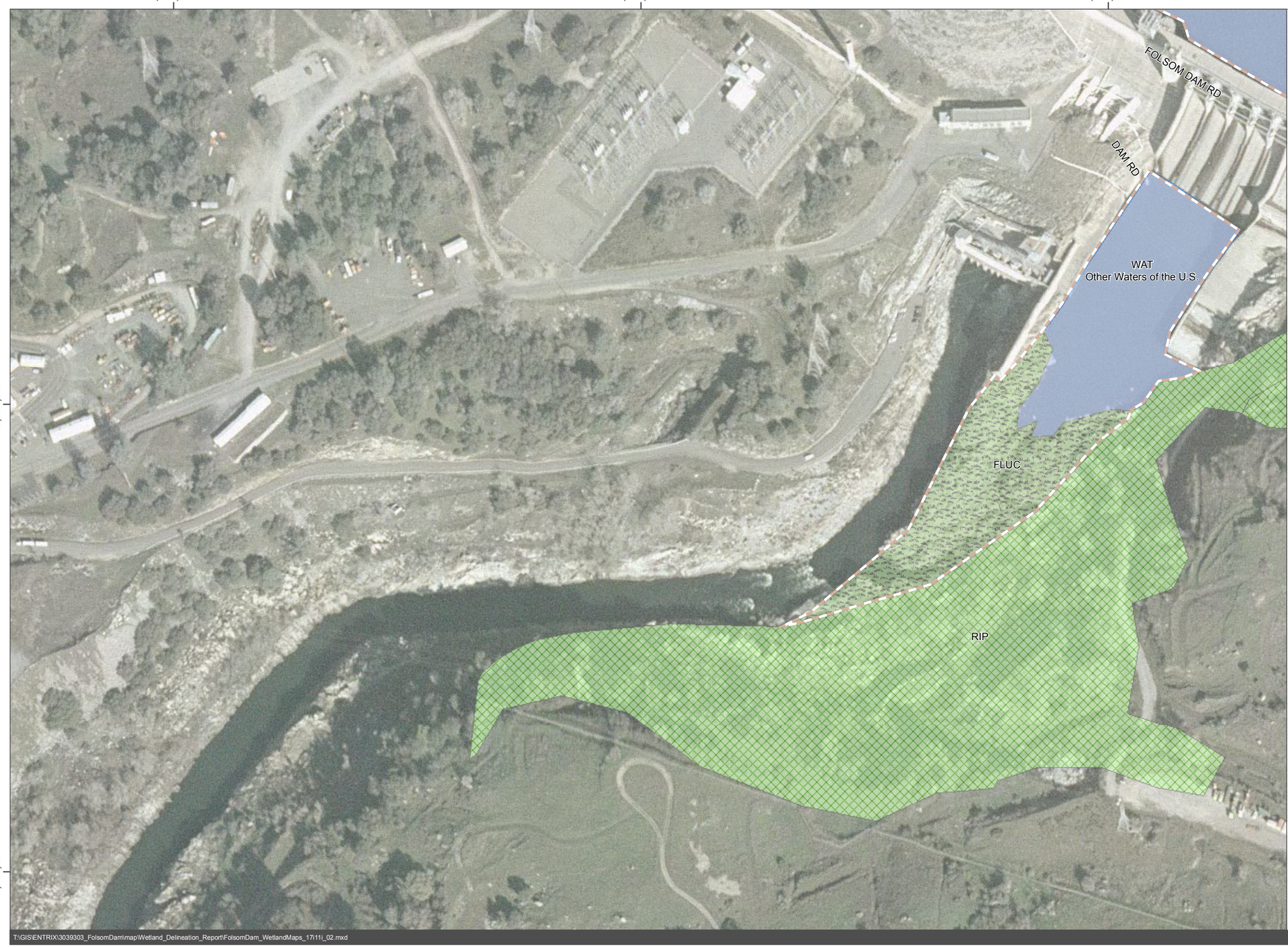

Wetland Delineation Map Series

Sheet 28

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC — FLUCTUATION ZONE
- FWM — FRESHWATER MARSH
- RIP — RIPARIAN
- RIP — RIPARIAN (Willow)
- RIP — RIPARIAN (Willow/Cottonwood)
- SW — SEASONAL WETLAND
- WAT — WATER

Wetland Field Survey Conducted By:

Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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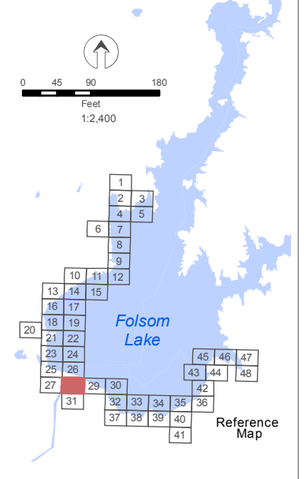

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WAT
Other Waters of the U.S.

DAM RD

RIP

FOLSOM DAM RD

WAT
Other Waters of the U.S.

FLUC

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Wetland Delineation Map Series

Sheet 29

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC — FLUCTUATION ZONE
- FWM — FRESHWATER MARSH
- RIP — RIPARIAN
- RIP — RIPARIAN (Willow)
- RIP — RIPARIAN (Willow/Cottonwood)
- SW — SEASONAL WETLAND
- WAT — WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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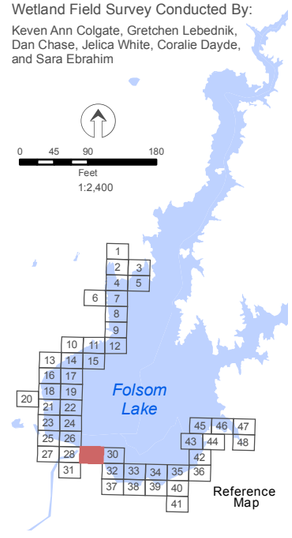

Reference Map

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WAT
Other Waters of the U.S.

FLUC

FOLSOM DAM RD

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Wetland Delineation Map Series

Sheet 30

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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Feet
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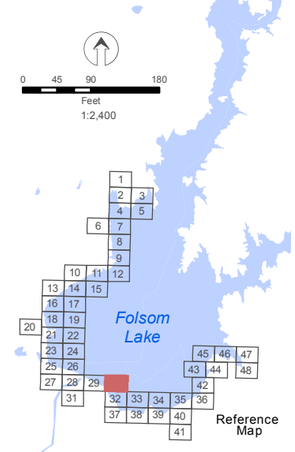

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Wetland Delineation Map Series

Sheet 31

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SWLZ SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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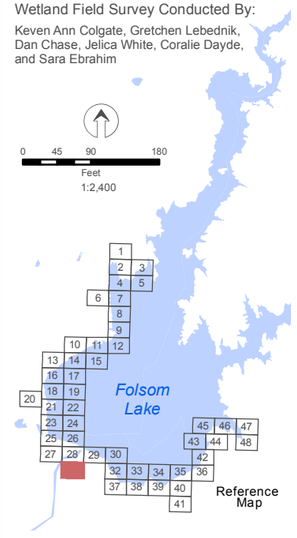

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2,018,000

FOLSOM DAM RD

WAT
Other Waters of the U.S.

W19_TR1_PIT A

FLUC

W19_TR1_PIT B

FOLSOM DAM RD

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Wetland Delineation Map Series

Sheet 32

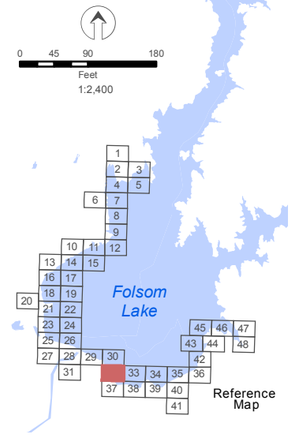
Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

0 45 90 180
Feet
1:2,400



ENTRIX

6,807,000

6,808,000

6,809,000

2,019,000

2,018,000

WAT
Other Waters of the U.S.

FLUC

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Wetland Delineation Map Series

Sheet 33

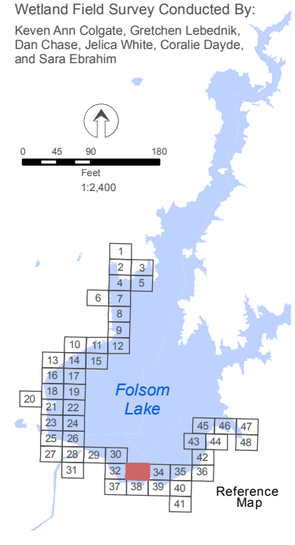
Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

0 45 90 180
Feet
1:2,400



ENTRIX

6,810,000

6,811,000

2,019,000

2,018,000

WAT
Other Waters of the U.S.

FLUC

RIP

SW

W16_TR1_PIT A

W16_TR1_PIT B

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Wetland Delineation Map Series

Sheet 34

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUCTUATION ZONE
- FRESHWATER MARSH
- RIPARIAN
- RIPARIAN (Willow)
- RIPARIAN (Willow/Cottonwood)
- SEASONAL WETLAND
- WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

0 45 90 180
Feet
1:2,400

Folsom Lake

Reference Map

ENTRIX

6,812,000

6,813,000

6,814,000

2,019,000

2,018,000

WAT
Other Waters of the U.S.

GREEN VALLEY RD

FWM

Wetland Delineation Map Series

Sheet 35

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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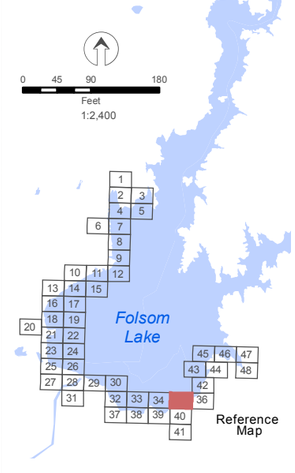

ENTRIX

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6,814,000

6,815,000

6,816,000

2,019,000

2,018,000

WAT
Other Waters of the U.S.

FLUC

ACCESS RD

KIPPS LN

RIP

GREEN VALLEY RD

SHADOWFAX LN

SHADOWFAX LN

T:\GIS\ENTRIX\3039303_FolsomDam\map\Wetland_Delineation_Report\FolsomDam_WetlandMaps_17i11i_02.mxd

Wetland Delineation Map Series

Sheet 36

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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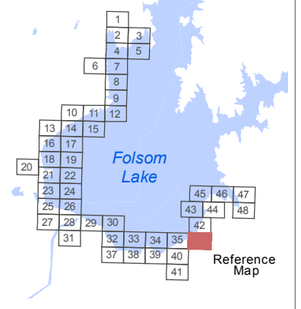
Feet
1:2,400



Reference Map

ENTRIX

6,805,000

6,806,000

6,807,000

2,017,000

2,016,000

FOLSOM DAM RD

FOLSOM DAM RD

E NATOMA ST

WAT
Other Waters of the U.S.

FLUC

RIP

Wetland Delineation Map Series

Sheet 37

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:

Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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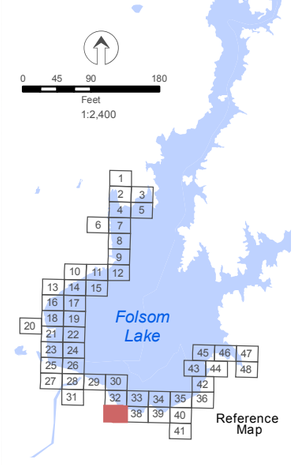
Feet
1:2,400



Reference Map

ENTRIX

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6,807,000

6,808,000

6,809,000

2,017,000

2,016,000

WAT
Other Waters of the U.S.

W18_TR1_PIT B

W18_TR1_PIT A

W18_TR1_PIT C

RIP

FLUC

W17_TR1_PIT C

W17_TR1_PIT A

W17_TR1_PIT C

RIP

MOUNTAIN VIEW DR

ELVIES LN

T:\GIS\ENTRIX\3039303_FolsomDam\map\Wetland_Delineation_Report\FolsomDam_WetlandMaps_17i11i_02.mxd

Wetland Delineation Map Series

Sheet 38

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUCTUATION ZONE
- FRESHWATER MARSH
- RIPARIAN
- RIPARIAN (Willow)
- RIPARIAN (Willow/Cottonwood)
- SEASONAL WETLAND
- WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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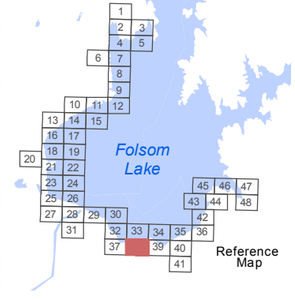
Feet
1:2,400



Reference Map

ENTRIX

6,810,000

6,811,000

2,017,000

2,016,000

SW

W16_TR1_PIT A
W16_TR1_PIT B

WAT
Other Waters of the U.S.

FLUC

RIP

W15_TR1_PIT A
W15_TR1_PIT B

RIP

RIP

T:\GIS\ENTRIX\3039303_FolsomDam\map\Wetland_Delineation_Report\FolsomDam_WetlandMaps_17i11i_02.mxd

Wetland Delineation Map Series

Sheet 39

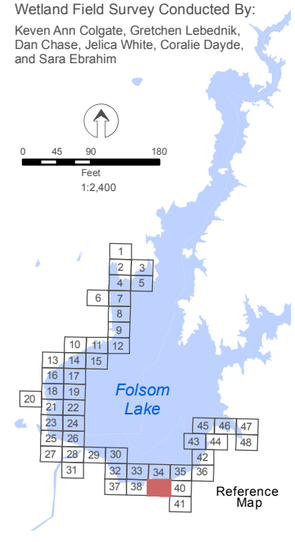
Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

0 45 90 180
Feet
1:2,400



Reference Map

ENTRIX

6,812,000

6,813,000

6,814,000

2,017,000

2,016,000

WAT
Other Waters of the U.S.

FLUC

RIP

FWM

GREEN VALLEY RD

SW

OR11_TR1_PIT A

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Wetland Delineation Map Series

Sheet 40

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

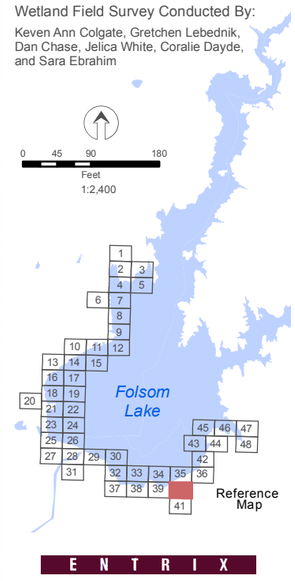
Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUCTUATION ZONE
- FRESHWATER MARSH
- RIPARIAN
- RIPARIAN (Willow)
- RIPARIAN (Willow/Cottonwood)
- SEASONAL WETLAND
- WATER

Wetland Field Survey Conducted By:

Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

0 45 90 180
Feet
1:2,400



Reference Map

ENTRIX

6,812,000

6,813,000

6,814,000

2,015,000

2,014,000

GREEN VALLEY RD

Wetland Delineation Map Series

Sheet 41

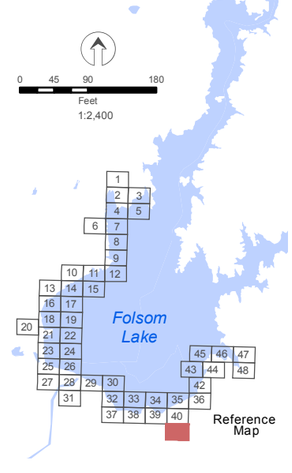
Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

0 45 90 180
Feet
1:2,400



Reference Map

ENTRIX

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6,814,000

6,815,000

6,816,000

2,020,000

2,019,000

WAT
Other Waters of the U.S.

FLUC

W14_TR1_PIT A

W14_TR1_PIT B

ACCESS RD

KIPPSLN

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Wetland Delineation Map Series

Sheet 42

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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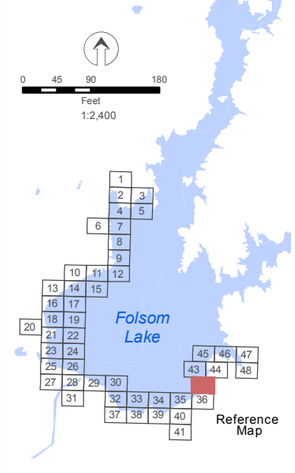
Feet
1:2,400



Reference Map

ENTRIX

6,814,000

6,815,000

2,022,000

2,021,000

FLUC

WAT
Other Waters of the U.S.

Wetland Delineation Map Series

Sheet 43

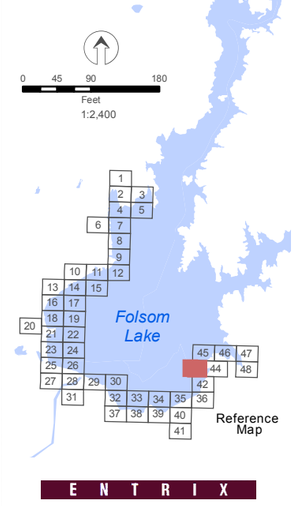
Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

0 45 90 180
Feet
1:2,400



ENTRIX

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6,816,000

6,817,000

6,818,000

2,022,000

2,021,000

FLUC

RIP

WAT
Other Waters of the U.S.

W13_TR1_PIT A

W13_TR1_PIT B

BLUE OAK CT

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Wetland Delineation Map Series

Sheet 44

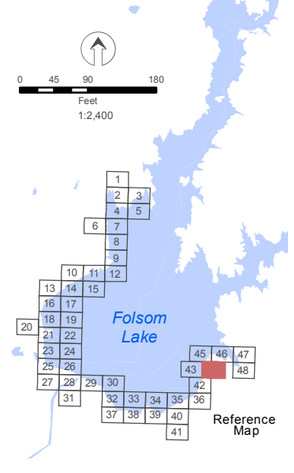
Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

0 45 90 180
Feet
1:2,400



ENTRIX

6,814,000

6,815,000

6,816,000

2,024,000

2,023,000

WAT
Other Waters of the U.S.

RIP

FLUC

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Wetland Delineation Map Series

Sheet 45

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC FLUCTUATION ZONE
- FWM FRESHWATER MARSH
- RIP RIPARIAN
- RIP RIPARIAN (Willow)
- RIP RIPARIAN (Willow/Cottonwood)
- SW SEASONAL WETLAND
- WAT WATER

Wetland Field Survey Conducted By:

Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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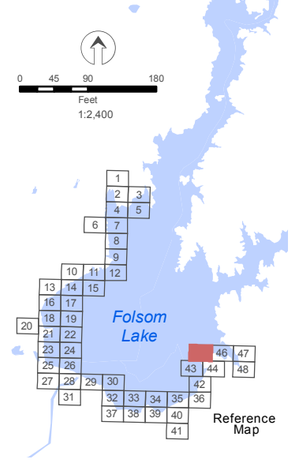
Feet
1:2,400



ENTRIX

6,817,000

6,818,000

6,819,000

2,024,000

2,023,000

WAT
Other Waters of the U.S.

W12_TR1_PIT A
W12_TR1_PIT B

RIP

FLUC

RIP

W11_TR1_PIT C2_SW
W11_TR1_PIT A
W11_TR1_PIT B
W11_TR1_PIT C1
W11_TR1_PIT D

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Wetland Delineation Map Series

Sheet 46

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC — FLUCTUATION ZONE
- FWM — FRESHWATER MARSH
- RIP — RIPARIAN
- RIP — RIPARIAN (Willow)
- RIP — RIPARIAN (Willow/Cottonwood)
- SW — SEASONAL WETLAND
- WAT — WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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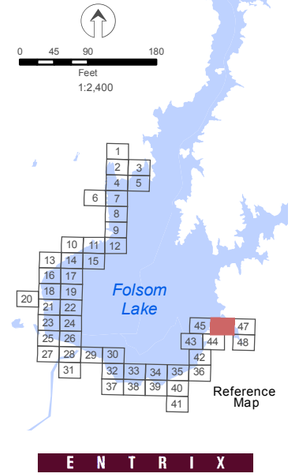
Feet
1:2,400



Reference Map

ENTRIX

6,819,000

6,820,000

6,821,000

2,024,000

2,023,000

AHOY CT

VISTA MAR DR

BROOK MAR CT

BROOK MAR DR

CREST MAR CIR

WAT
Other Waters of the U.S.

RIP

FLUC

W20_TR1_PIT B

W20_TR1_PIT B

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Wetland Delineation Map Series

Sheet 47

Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC — FLUCTUATION ZONE
- FWM — FRESHWATER MARSH
- RIP — RIPARIAN
- RIP — RIPARIAN (Willow)
- RIP — RIPARIAN (Willow/Cottonwood)
- SW — SEASONAL WETLAND
- WAT — WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

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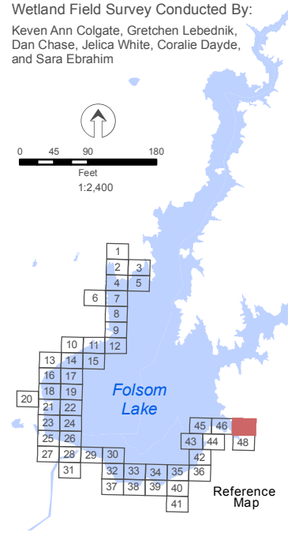
Feet
1:2,400



Reference Map

ENTRIX

6,819,000

6,820,000

6,821,000

2,022,000

2,021,000

W20_TR1_PIT B
W20_TR1_PIT B
W20_TR1_PIT A
W20_TR1_PIT A
FLUC
W21_TR1_PIT A
W21_TR1_PIT A
W21_TR1_PIT B
W21_TR1_PIT B
RIP
GREEN VALLEY RD
MILLER RD
HILL VIEW DR
HIDDEN ACRES DR

T:\GIS\ENTRIX\3039303_FolsomDam\map\Wetland_Delineation_Report\FolsomDam_WetlandMaps_17i11i_02.mxd

Wetland Delineation Map Series

Sheet 48

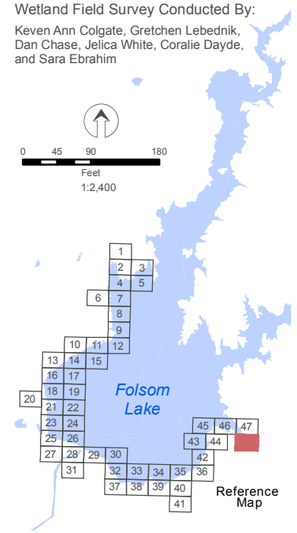
Figure B-1
Potential Jurisdictional Wetlands and Other Waters of the U.S. at the Folsom Dam JFP in Placer, El Dorado and Sacramento Counties, California

Legend

- Sample Site
- Jurisdictional Wetlands Boundary
- Jurisdictional Other Waters Boundary
- Other Waters of the U.S.
- FLUC — FLUCTUATION ZONE
- FWM — FRESHWATER MARSH
- RIP — RIPARIAN
- RIP — RIPARIAN (Willow)
- RIP — RIPARIAN (Willow/Cottonwood)
- SW — SEASONAL WETLAND
- WAT — WATER

Wetland Field Survey Conducted By:
Keven Ann Colgate, Gretchen Lebednik, Dan Chase, Jelica White, Coralie Dayde, and Sara Ebrahim

0 45 90 180
Feet
1:2,400



ENTRIX

ATTACHMENT C. WETLAND DELINEATION FIELD DATA FORMS

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 1/12/06
Applicant/Owner: Bureau of Reclamation County: Placer County
Investigator: Keven Ann Colgate, Daniel Chase State: California
Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland
Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: OR1
Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT A
(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Rorippa nasturtium-aquaticum	H	OBL	9.		
2. Typha latifolia	H	OBL	10.		
3. Mimulus guttatus	H	OBL	11.		
4. Cyperus eragrostis	H	FACW	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Pit A is a channel formed by a flow coming out of an approximately 8-10-foot pipe/culvert. Possibility leak from Dike 6.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___0___ (in.)
Depth to Free Water in Pit: ___0___ (in.)
Depth to Saturated Soil ___0___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☒ Inundated
☒ Saturated in upper 12 inches
☒ Water Marks
☒ Drift Lines
☒ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Adit /leak channel- No pit dug – area inundated

SOILS Plot ID: OR1 PIT A

(Series and Phase) _____Xerothents, cut and fill areas_____ Drainage Class: _Well/Excessively Drained_

Taxonomy (Subgroup): _____ Field Observations
Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

____ Histosol	____ Concretions
____ Histic Epipedon	____ High Organic Content in Surface Layer in Sandy Soils
____ Sulfidic Odor	____ Organic Streaking in Sandy Soils
____ Aquic Moisture Regime	____ Listed on Local Hydric Soils List
____ Reducing Conditions	____ Listed on National Hydric Soils List
____ Gleyed or Low-Chroma Colors	____ Other (Explain in Remarks)

Remarks:

No pit excavated. Site is inundated w/ OBL vegetation.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 1/12/06

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Interior live oak woodland/annual grassland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: OR1

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT B

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Bromus sp.	H	NL	9.		
2. Eremocarpus setigerus	H	NL	10.		
3. Geranium molle	H	NL	11.		
4. Baccharis pilularis	SH	NL	12.		
5. Quercus wislizenii	TR	NL	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks:

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___ NA ___ (in.)

Depth to Saturated Soil ___10___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☒ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Photo 5, 6 – Pit B w/ adit in background

Map Unit Name
(Series and Phase) _____Xerothents, cut and fill areas_____ Drainage Class: _Excessively/well drained__
Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-11	-	10 YR 4/3	2.5 YR 3/6	15%	Fine, med coarse
0-11	-	10 YR 4/3	7.5 YR 4/6	<10%	
11-16		10 YR 4/3	10 YR 2.5/1	50%	Fine sand

Hydric Soil Indicators:

___	Histosol	___	Concretions
___	Histic Epipedon	___	High Organic Content in Surface Layer in Sandy Soils
___	Sulfidic Odor	___	Organic Streaking in Sandy Soils
___	Aquic Moisture Regime	___	Listed on Local Hydric Soils List
X	Reducing Conditions	___	Listed on National Hydric Soils List
X	Gleyed or Low-Chroma Colors	___	Other (Explain in Remarks)

Remarks: Area is disturbed. Appears to be an old borrow area for Dike 6. Uneven grades: ditches, ridges. Pit B is located adjacent to gauged leak (adit?)

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 1/12/06

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: OR1

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR2 PIT A

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Juncus oxymeris	H	FACW	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Juncus has flat blue green leaf.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___12___ (in.)

Depth to Saturated Soil ___0___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☒ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☒ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☒ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Water flowed in & equalized at approximately 10-12" below surface.

Map Unit Name
(Series and Phase) _____Xerothents, cut and fill areas___ Drainage Class: _Excessively/Well Drained_
Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-4	-	7.5 YR 4/3	NA	NA	Fine, med, coarse sand
4-14	-	7.5 YR 4/3	2.5 YR 4/8	35%	Fine sand
14-16	-	7.5 YR 4/3	2.5 YR 2.5/1	15%	Fine sand

Hydric Soil Indicators:

___	Histosol	___	Concretions
___	Histic Epipedon	___	High Organic Content in Surface Layer in Sandy Soils
___	Sulfidic Odor	X	Organic Streaking in Sandy Soils
___	Aquic Moisture Regime	___	Listed on Local Hydric Soils List
___	Reducing Conditions	___	Listed on National Hydric Soils List
___	Gleyed or Low-Chroma Colors	___	Other (Explain in Remarks)

Remarks:

Mottles and organic streaking

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 1/12/06

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Ruderal / annual grassland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: OR1

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR2 PIT B
(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Carduus pycnocephalus*	H	NL	9.		
2. *Hordeum murinum*	H	NL	10.		
3. *Bromus* sp.	H	NL	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks:

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___NA___ (in.)

Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Upland pit adjacent to inundated area. Pit is approximately 80 feet from toe of Dike 6.

SOILS Plot ID: OR1 TR2 PIT B

Map Unit Name
(Series and Phase) _____Xerothents, cut and fill areas_____ Drainage Class: _Well/Excessively Drained_
Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-16	-	7.5 YR 4/4	NA	NA	Fine, med sand

Hydric Soil Indicators:

____ Histosol	____ Concretions
____ Histic Epipedon	____ High Organic Content in Surface Layer in Sandy Soils
____ Sulfidic Odor	____ Organic Streaking in Sandy Soils
____ Aquic Moisture Regime	____ Listed on Local Hydric Soils List
____ Reducing Conditions	____ Listed on National Hydric Soils List
____ Gleyed or Low-Chroma Colors	____ Other (Explain in Remarks)

Remarks:

No indicators.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 1/12/06
Applicant/Owner: Bureau of Reclamation County: Placer County
Investigator: Keven Ann Colgate, Daniel Chase State: California
Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Cottonwood-willow riparian
Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: OR1
Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR3 PIT A
(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Juncus balticus* *	H	OBL	9.		
2. *Populus fremontii* ssp. *fremontii*	TR	FACW	10.		
3. *Salix* sp.	SH	FAC - OBL	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: *Round leaved-rush dark green, no inflorescence. *Salix* is deciduous, cannot be keyed to species.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)
Depth to Free Water in Pit: ___2___ (in.)
Depth to Saturated Soil ___0___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☒ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks:

SOILS Plot ID: OR1 TR3 PIT A

Map Unit Name
(Series and Phase) _____Xerothents, cut and fill areas_____ Drainage Class: _Well/Excessively Drained_
Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-6	-	2.5 YR 7/4	7.5 YR 5/6	10%	coarse sand
6-17	-	NA	NA	NA	bedrock

Hydric Soil Indicators:

____ Histosol	____ Concretions
____ Histic Epipedon	____ High Organic Content in Surface Layer in Sandy Soils
____ Sulfidic Odor	____ Organic Streaking in Sandy Soils
____ Aquic Moisture Regime	____ Listed on Local Hydric Soils List
____ Reducing Conditions	____ Listed on National Hydric Soils List
____ Gleyed or Low-Chroma Colors	____ Other (Explain in Remarks)

Remarks:

Perched groundwater on hard pack/bedrock

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 1/12/06

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Ruderal

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: OR1

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR3 PIT B

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Erodium cicutarium*	H	NL	9.		
2. *Bromus* sp.	H	NL	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks:

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___ NA __ (in.)

Depth to Saturated Soil ___ NA __ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: No hydrology – site is damp from recent precipitation.

Map Unit Name
(Series and Phase) _____Xerothents, cut and full areas_____ Drainage Class: __Well/Excessively Drained

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-5	-	10 YR 4/4	5 YR 4/6	1%	Fine medium sand
5-16	-	?	NA	NA	Bedrock

Hydric Soil Indicators:

____ Histosol	____ Concretions
____ Histic Epipedon	____ High Organic Content in Surface Layer in Sandy Soils
____ Sulfidic Odor	____ Organic Streaking in Sandy Soils
____ Aquic Moisture Regime	____ Listed on Local Hydric Soils List
____ Reducing Conditions	____ Listed on National Hydric Soils List
____ Gleyed or Low-Chroma Colors	____ Other (Explain in Remarks)

Remarks:

Rock out crop within larger wetland complex.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

Is this Sampling Point Within a Wetland? Yes (No) (Circle)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 1/12/06

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: OR2

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT A

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Rumex crispus	H	FACW-	9.		
2. Juncus oxymeris	H	FACW	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 50%

Remarks:

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___0___ (in.)

Depth to Free Water in Pit: ___0___ (in.)

Depth to Saturated Soil ___0___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☒ Inundated
☒ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks:

SOILS Plot ID: OR1 TR2 PIT A

Map Unit Name
(Series and Phase) ____Andregg coarse sandy loam, 2-9% slopes_____ Drainage Class: _____Well Drained_____

Taxonomy (Subgroup): _____ Field Observations
Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-16	-	5 YR 2.5/1	NA	NA	silty sand

Hydric Soil Indicators:

____	Histosol	____	Concretions
____	Histic Epipedon	____	High Organic Content in Surface Layer in Sandy Soils
____	Sulfidic Odor	____	Organic Streaking in Sandy Soils
____	Aquic Moisture Regime	____	Listed on Local Hydric Soils List
____	Reducing Conditions	____	Listed on National Hydric Soils List
X	Gleyed or Low-Chroma Colors	____	Other (Explain in Remarks)

Remarks:

Muck – channel is fed from culvert @ road. No channel above road.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes)	No	(Circle)	
Wetland Hydrology Present?	(Yes)	No		
Hydric Soils Present?	(Yes)	No		
				(Circle)
Is this Sampling Point Within a Wetland?	(Yes)	No		

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 1/12/06

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Annual grassland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: OR2

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT B

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Hypericum perforatum*	H	NL	9.		
2. *Bromus* sp.	H	NL	10.		
3. *Hordeum murinum*	H	NL	11.		
4. *Eremocarpus setigerus*	H	NL	12.		
5. *Baccharis pilularis*	SH	NL	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks:

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___ NA __ (in.)

Depth to Saturated Soil ___ NA __ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Wet from rain, otherwise no hydrology.

Map Unit Name
(Series and Phase) _____Andregg coarse sandy loam, 2-9% slopes_____ Drainage Class: ____Well Drained_____
Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-16	-	5 YR 3/2	0	0	Fine sandy loam

Hydric Soil Indicators:

____ Histosol
____ Histic Epipedon
____ Sulfidic Odor
____ Aquic Moisture Regime
____ Reducing Conditions
____ Gleyed or Low-Chroma Colors
____ Concretions
____ High Organic Content in Surface Layer in Sandy Soils
____ Organic Streaking in Sandy Soils
____ Listed on Local Hydric Soils List
____ Listed on National Hydric Soils List
____ Other (Explain in Remarks)

Remarks:

No hydric indicators

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 1/12/06

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: OR2

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR2 PIT A

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Juncus balticus**	H	OBL	9.		
2. *Rumex pulcher*	H	FAC+	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: *Round leaf

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___1___ (in.)

Depth to Free Water in Pit: ___0___ (in.)

Depth to Saturated Soil ___0___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☒ Saturated in upper 12 inches
☒ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Fed by a culvert @ the road. Culvert crosses road, no channel above road.

Map Unit Name
(Series and Phase) ____Andregg coarse sandy loam, 2-9% slopes_____ Drainage Class: ____Well Drained_____

Taxonomy (Subgroup): _____ Field Observations
Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

____ Histosol
____ Histic Epipedon
____ Sulfidic Odor
____ Aquic Moisture Regime
____ Reducing Conditions
____ Gleyed or Low-Chroma Colors
____ Concretions
____ High Organic Content in Surface Layer in Sandy Soils
____ Organic Streaking in Sandy Soils
____ Listed on Local Hydric Soils List
____ Listed on National Hydric Soils List
____ Other (Explain in Remarks)

Remarks:

Same as OR2-TR1-PIT A. No pit dug.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 1/12/06

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Annual grassland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: OR2

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR2 PIT B

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Cynosurus echinatus	H	NL	9.		
2. Hordeum murinum	H	NL	10.		
3. Plantago lanceolata	H	FAC-	11.		
4. Centaurea solstitialis	H	NL	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks:

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___ NA __ (in.)

Depth to Saturated Soil ___ NA __ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Upland, no hydrology

Map Unit Name
(Series and Phase) _____Andregg coarse sandy loam, 2-9% slopes_____ Drainage Class: _____Well Drained_____

Taxonomy (Subgroup): _____ Field Observations
Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

____ Histosol	____ Concretions
____ Histic Epipedon	____ High Organic Content in Surface Layer in Sandy Soils
____ Sulfidic Odor	____ Organic Streaking in Sandy Soils
____ Aquic Moisture Regime	____ Listed on Local Hydric Soils List
____ Reducing Conditions	____ Listed on National Hydric Soils List
____ Gleyed or Low-Chroma Colors	____ Other (Explain in Remarks)

Remarks:
No pit dug. Upland vegetation and no hydrology.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 1/12/06

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Willow riparian

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: OR3

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT A

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix sp.	SH	FAC - OBL	9.		
2. Rumex crispus	H	FACW-	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 50%

Remarks:

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___NA___ (in.)

Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Receives overland flow from upslope along base of Dike 1. Also receives ground water from reservoir. Pit is just upslope of OHWM drift line of reservoir.

SOILS Plot ID: OR3 TR1 PIT A

Map Unit Name
(Series and Phase) _____Andregg coarse sandy loam, 2-9%_____ Drainage Class: ___Well Drained ____
Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-12	-	7.5 YR 3/2	5 YR 5/6	20%	Med-coarse sand
12-16	-	Too hard to dig			Coarse sand

Hydric Soil Indicators:

____ Histosol
____ Histic Epipedon
____ Sulfidic Odor
____ Aquic Moisture Regime
____ Reducing Conditions
____ Gleyed or Low-Chroma Colors
____ Concretions
____ High Organic Content in Surface Layer in Sandy Soils
____ Organic Streaking in Sandy Soils
____ Listed on Local Hydric Soils List
____ Listed on National Hydric Soils List
____ Other (Explain in Remarks)

Remarks:

2-3” organic layer – then mineral

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

Wetland boundary is just downslope within OHWM of reservoir. Drift is heavy.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 1/12/06

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Annual grassland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: OR3

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT B

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Centaurea solstitialis	H	NL	9.		
2. Hirschfeldia incana	H	NL	10.		
3. Bromus sp.	H	NL	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Remarks: Upland – on side of dike

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___NA___ (in.)

Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: No hydrology, upland vegetation on rip rap slope.

SOILS Plot ID: OR3 TR1 PIT B

Map Unit Name
(Series and Phase) _____Andregg coarse sandy loam, 2-9% slopes_____ Drainage Class: _____Well Drained_____
Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

____ Histosol	____ Concretions
____ Histic Epipedon	____ High Organic Content in Surface Layer in Sandy Soils
____ Sulfidic Odor	____ Organic Streaking in Sandy Soils
____ Aquic Moisture Regime	____ Listed on Local Hydric Soils List
____ Reducing Conditions	____ Listed on National Hydric Soils List
____ Gleyed or Low-Chroma Colors	____ Other (Explain in Remarks)

Remarks:

No pit dug – site on rip rap slope.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 1/13/06

Applicant/Owner: Bureau of Reclamation County: Sacramento County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: OR4

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT A

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Typha latifolia*	H	OBL	9.		
2. *Salix* sp.	TR	FAC - OBL	10.		
3. *Cyperus eragrostis*	H	FACW	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Also patches of *Juncus* (flat blue-green leaf). Within channel (wetland portion) *Salix* and annual herbaceous vegetation dominate.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___6___ (in.)

Depth to Saturated Soil ___0___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☒ Saturated in upper 12 inches
☒ Water Marks
☒ Drift Lines
☒ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☒ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Culvert at road to north (near dam base @ pipe) feeds this man-made channel. Channel runs south then east into larger creek on SW boundary of contractor use area.

SOILS Plot ID: OR4 TR1 PIT A

Map Unit Name
(Series and Phase) __Andregg urban land complex, 2-8% slopes_____ Drainage Class: ____Well Drained_____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-16	-	10 YR 4/1	10YR 3/6	25%	Med sand

Hydric Soil Indicators:

___	Histosol	___	Concretions
___	Histic Epipedon	___	High Organic Content in Surface Layer in Sandy Soils
___	Sulfidic Odor	___	Organic Streaking in Sandy Soils
X	Aquic Moisture Regime	___	Listed on Local Hydric Soils List
X	Reducing Conditions	___	Listed on National Hydric Soils List
X	Gleyed or Low-Chroma Colors	___	Other (Explain in Remarks)

Remarks:

Portions of the channel are inundated with water and host OBL vegetation

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

Area is relatively disturbed. Channel is man made and fed by a culvert coming out of the base of the right wing dam.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 1/13/06
Applicant/Owner: Bureau of Reclamation County: Placer County
Investigator: Keven Ann Colgate, Daniel Chase State: California
Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Interior live oak woodland
Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: OR4
Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT B
(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Baccharis pilularis	SH	NL	9.		
2. Aesculus californica	TR	NL	10.		
3. Centaurea solstitialis	H	NL	11.		
4. Bromus sp.	H	NL	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks: Riparian area around channel hosts *Quercus wislzenii, Rubus californica, Sambucus mexicana* and *Baccharis pilularis.*

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)
Depth to Free Water in Pit: ___ NA __ (in.)
Depth to Saturated Soil ___ NA __ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: No indicators of hydrology.

SOILS Plot ID: OR4 TR1 PIT B

Map Unit Name
(Series and Phase) ____Andregg urban land complex 2-8% slopes_____ Drainage Class: __Well Drained_____
Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-16	-	10 YR 3/4	NA	NA	Loamy med sand

Hydric Soil Indicators:

____ Histosol	____ Concretions
____ Histic Epipedon	____ High Organic Content in Surface Layer in Sandy Soils
____ Sulfidic Odor	____ Organic Streaking in Sandy Soils
____ Aquic Moisture Regime	____ Listed on Local Hydric Soils List
____ Reducing Conditions	____ Listed on National Hydric Soils List
____ Gleyed or Low-Chroma Colors	____ Other (Explain in Remarks)

Remarks:

Areas of the bank are covered with rip-rap piles and broken concrete.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

Pit located at top of bank of man-made drainage

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 1/13/06

Applicant/Owner: Bureau of Reclamation County: Sacramento County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Cottonwood- willow riparian

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: OR5

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT A

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Geranium molle	H	NL	9.		
2. Populus fremontii ssp. *fremontii*	TR	FACW	10.		
3. Epilobium ciliatum	H	FACW	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 67%

Remarks: Some portions of the ditch are not vegetated, though the majority is thick with willow of several species. Annual grassland species (*Geranium* sp., *Carduus* sp., etc.) seasonally occupy drier portions of the ditch.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___4___ (in.)

Depth to Saturated Soil ___0___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☒ Saturated in upper 12 inches
☒ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☒ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Man made ditch @ base of MIAD. Appears to be only seasonally wet. Drains water from base of MIAD dam downslope toward Green Valley Rd. Ditch is inundated in some areas.

Map Unit Name
(Series and Phase) ___Auburn-argonaut rock outcrop complex, 8-30%_____ Drainage Class: ___Well drained_____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-16	-	5 Y 4/2	10YR 4/6	5-10%	Silty clay w/ gravel and cobble

Hydric Soil Indicators:

___	Histosol	___	Concretions
___	Histic Epipedon	___	High Organic Content in Surface Layer in Sandy Soils
___	Sulfidic Odor	___	Organic Streaking in Sandy Soils
___	Aquic Moisture Regime	___	Listed on Local Hydric Soils List
___	Reducing Conditions	___	Listed on National Hydric Soils List
X	Gleyed or Low-Chroma Colors	___	Other (Explain in Remarks)

Remarks:

Lots of cobble and gravel from dam material.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 1/13/06

Applicant/Owner: Bureau of Reclamation County: Sacramento County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Annual grassland/ ruderal

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: OR5

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT B

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Geranium molle	H	NL	9.		
2. Carduus pycnocephalus	H	NL	10.		
3. Centaurea solstitialis	H	NL	11.		
4. Bromus sp.	H	NL	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks: Upland ruderal grassland.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___ NA ___ (in.)

Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:

☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):

☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks:

Map Unit Name
(Series and Phase) __Auburn-argonaut-rock outcrop complex, 8-30% slopes__ Drainage Class: ____Well drained_____

Taxonomy (Subgroup): _____ Field Observations
Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-16	-	10 YR 4/4	10 R 4/6	<1%	Fine, silty sand/clay w/ gravel

Hydric Soil Indicators:

____ Histosol
____ Histic Epipedon
____ Sulfidic Odor
____ Aquic Moisture Regime
____ Reducing Conditions
____ Gleyed or Low-Chroma Colors
____ Concretions
____ High Organic Content in Surface Layer in Sandy Soils
____ Organic Streaking in Sandy Soils
____ Listed on Local Hydric Soils List
____ Listed on National Hydric Soils List
____ Other (Explain in Remarks)

Remarks:

None

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 1/13/06
Applicant/Owner: Bureau of Reclamation County: Sacramento County
Investigator: Keven Ann Colgate, Daniel Chase State: California
Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Freshwater marsh
Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: OR6
Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT A
(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Typha latifolia	H	OBL	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Area dominated by cattails

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___6+___ (in.)
Depth to Free Water in Pit: ___0___ (in.)
Depth to Saturated Soil ___0___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☒ Inundated
☒ Saturated in upper 12 inches
☒ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Ponded water through much of the site.

Map Unit Name
(Series and Phase) _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

____ Histosol	____ Concretions
____ Histic Epipedon	____ High Organic Content in Surface Layer in Sandy Soils
____ Sulfidic Odor	____ Organic Streaking in Sandy Soils
____ Aquic Moisture Regime	____ Listed on Local Hydric Soils List
____ Reducing Conditions	____ Listed on National Hydric Soils List
____ Gleyed or Low-Chroma Colors	____ Other (Explain in Remarks)

Remarks:

No pit dug. Area is inundated and colonized with OBL vegetation.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 1/13/06
Applicant/Owner: Bureau of Reclamation County: Placer County
Investigator: Keven Ann Colgate, Daniel Chase State: California
Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Ruderal/annual grassland
Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: OR6
Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT B
(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Bromus* sp.	H	NL	9.		
2. *Rumex crispus*	H	FACW-	10.		
3. *Carduus pycnocephalus*	H	NL	11.		
4. *Hirschfeldia incana*	H	NL	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 25%

Remarks: Other need species include. *Hypocheris, Erodium, Geranium, Gnaphalium*, etc.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)
Depth to Free Water in Pit: ___NA___ (in.)
Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: No hydrology

Map Unit Name
(Series and Phase) _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

____ Histosol	____ Concretions
____ Histic Epipedon	____ High Organic Content in Surface Layer in Sandy Soils
____ Sulfidic Odor	____ Organic Streaking in Sandy Soils
____ Aquic Moisture Regime	____ Listed on Local Hydric Soils List
____ Reducing Conditions	____ Listed on National Hydric Soils List
____ Gleyed or Low-Chroma Colors	____ Other (Explain in Remarks)

Remarks:

No hydric vegetation, no hydrology. No pit dug

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 8/2/2006

Applicant/Owner: Bureau of Reclamation County: Placer

Investigator: Gretchen Lebednik, Coralie Dayde State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: Pit A

Is the area a potential Problem Area? ☒Yes ☐No Transect ID: OR8 TR1

(If needed, explain on reverse side.) – Seasonal wetland

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Lythrum hyssopifolia*	H	FACW	9.		
2. *Rumex pulcher*	H	FAC+	10.		
3. grass, unidentified			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 67 % or more

Remarks:

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☒ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: >12 (in.)

Depth to Saturated Soil >12 (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☒ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Shallow, ponded area at edge of path

Map Unit Name
(Series and Phase) Andregg coarse sandy loam, 2 to 9 percent slopes Drainage Class: Well drained

Taxonomy (Subgroup): Ultic Haploxeroll Field Observations
Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-12		10YR 4/4			

Hydric Soil Indicators:

___ Histosol	___ Concretions
___ Histic Epipedon	___ High Organic Content in Surface Layer in Sandy Soils
___ Sulfidic Odor	___ Organic Streaking in Sandy Soils
___ Aquic Moisture Regime	___ Listed on Local Hydric Soils List
___ Reducing Conditions	___ Listed on National Hydric Soils List
___ Gleyed or Low-Chroma Colors	___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 8/2/2006

Applicant/Owner: Bureau of Reclamation County: Placer

Investigator: Gretchen Lebednik, Coralie Dayde State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: Pit A

Is the area a potential Problem Area? ☒Yes ☐No Transect ID: OR9 TR1

(If needed, explain on reverse side.) seasonal wetland

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Lythrum hyssopifolia*	H	FACW	9.		
2. *Vulpia* sp.	H	FACW - UPL	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 50 to 100%

Remarks:

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☒ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: __N/A_ (in.)

Depth to Free Water in Pit: __>14_ (in.)

Depth to Saturated Soil __>14_ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☒ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: At edge of grassy area, partly under adjacent oak canopy

Map Unit Name
(Series and Phase) Andregg coarse sandy loam, 2 to 9 percent slopes Drainage Class: Well drained

Taxonomy (Subgroup): Ultic Haploxeroll Field Observations
Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-8		10YR 4/4			

Hydric Soil Indicators:

___ Histosol	___ Concretions
___ Histic Epipedon	___ High Organic Content in Surface Layer in Sandy Soils
___ Sulfidic Odor	___ Organic Streaking in Sandy Soils
___ Aquic Moisture Regime	___ Listed on Local Hydric Soils List
___ Reducing Conditions	___ Listed on National Hydric Soils List
___ Gleyed or Low-Chroma Colors	___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 8/2/2006

Applicant/Owner: Bureau of Reclamation County: Placer

Investigator: Gretchen Lebednik, Coralie Dayde State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: Pit A

Is the area a potential Problem Area? ☒Yes ☐No Transect ID: OR10 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Lythrum hyssopifolia*	H	FACW	9.		
2. *Vulpia* sp.	H	FACW - UPL	10.		
3. unidentified grass	H		11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 33 to 100%

Remarks:

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☒ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: _N/A_ (in.)

Depth to Free Water in Pit: _>14_ (in.)

Depth to Saturated Soil _>14_ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☒ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Shallow, ponded area adjacent to graded parking pad.

Map Unit Name
(Series and Phase) Andregg coarse sandy loam, 2 to 9 percent slopes and Andregg coarse sandy loam, rocky, 2 to 15 percent slopes
Drainage Class: Well drained
Field Observations
Taxonomy (Subgroup): Ultic Haploxeroll
Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-8		10YR 4/6	7.5YR 5/6	Frequent, but small	Sandy, silty

Hydric Soil Indicators:

____ Histosol	____ Concretions
____ Histic Epipedon	____ High Organic Content in Surface Layer in Sandy Soils
____ Sulfidic Odor	____ Organic Streaking in Sandy Soils
____ Aquic Moisture Regime	____ Listed on Local Hydric Soils List
____ Reducing Conditions	____ Listed on National Hydric Soils List
____ Gleyed or Low-Chroma Colors	____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 9/12/2006

Applicant/Owner: Bureau of Reclamation County: Sacramento

Investigator: Gretchen Lebednik, Sara Ebrahim State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: Pit A

Is the area a potential Problem Area? ☒Yes ☐No Transect ID: OR11 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Eleocharis* sp.	H	OBL-FACW	9.		
2. *Eryngium aristulatum*	H	OBL	10.		
3. *Cyperus* sp.	H	OBL-FAC	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 67 to 100%

Remarks:

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☒ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: >14 (in.)

Depth to Saturated Soil >14 (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☒ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Shallow, ponded area connected to culvert under Green Valley Road.

Map Unit Name
(Series and Phase) Argonaut-Auburn complex, 3 to 8 percent slopes Drainage Class: Well drained

Taxonomy (Subgroup): Mollic Haploxeralfs-Lithic Haploxerepts Field Observations Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
8		10YR 3/3			

Hydric Soil Indicators:

___ Histosol	___ Concretions
___ Histic Epipedon	___ High Organic Content in Surface Layer in Sandy Soils
___ Sulfidic Odor	___ Organic Streaking in Sandy Soils
___ Aquic Moisture Regime	___ Listed on Local Hydric Soils List
___ Reducing Conditions	___ Listed on National Hydric Soils List
___ Gleyed or Low-Chroma Colors	___ Other (Explain in Remarks)

Remarks:

Disturbed soil may include fill

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

A swath had recently been graded along the inside of the fence paralleling Green Valley Road.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/05

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal Wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W1

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT A

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Cynodon dactylon*	H	FAC	9.		
2. *Gnaphalium palustre*	H	FACW	10.		
3. *Salix* sp.	SH	FAC - OBL	11.		
4. *Xanthium strumarium*	H	FAC +	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: See samples, all species >= 20% Cover. No tree layer.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___NA___ (in.)

Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☒ Water Marks
☒ Drift Lines
☒ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Below bath tub ring.

SOILS Plot ID: W1 PIT A

Map Unit Name
(Series and Phase) _____Water_____ Drainage Class: _____NA_____

Taxonomy (Subgroup): _____ NA _____ Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-14	-	10 YR 4/3	No	NA	Fine sand
14-17	-	2.5 Y 4/2	NA	NA	Fine sand

Hydric Soil Indicators:

___	Histosol	___	Concretions
___	Histic Epipedon	___	High Organic Content in Surface Layer in Sandy Soils
___	Sulfidic Odor	___	Organic Streaking in Sandy Soils
___	Aquic Moisture Regime	___	Listed on Local Hydric Soils List
___	Reducing Conditions	___	Listed on National Hydric Soils List
X	Gleyed or Low-Chroma Colors	___	Other (Explain in Remarks)

Remarks:

No mottles but low chroma matrix @ ~14". Must be chroma of 1 or </= 2 with mottles.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

Photos 5/6/7
N 38° 45'28.33"
W 121° 08'25.72"

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/05

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal Wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W1

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT B

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Cynodon dactylon*	H	FAC	9.		
2. *Xanthium strumarium*	H	FAC +	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Wetland vegetation.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___NA___ (in.)

Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☒ Water Marks
☒ Drift Lines
☒ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Within OHWM of Folsom Lake.

SOILS Plot ID: W1 PIT B

Map Unit Name
(Series and Phase) _____Water_____ Drainage Class: _____NA_____

Taxonomy (Subgroup): _____NA_____ Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-8	-	10 YR 4/3	NA	NA	Fine sand
8-17	-	2.5 Y 4/2	5YR 4/6	40%	Fine sand

Hydric Soil Indicators:

___	Histosol	___	Concretions
___	Histic Epipedon	___	High Organic Content in Surface Layer in Sandy Soils
___	Sulfidic Odor	___	Organic Streaking in Sandy Soils
___	Aquic Moisture Regime	___	Listed on Local Hydric Soils List
___	Reducing Conditions	___	Listed on National Hydric Soils List
X	Gleyed or Low-Chroma Colors	___	Other (Explain in Remarks)

Remarks:

Mottles are layered streaks. Some clay in texture.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/05
Applicant/Owner: Bureau of Reclamation County: Placer County
Investigator: Keven Ann Colgate, Daniel Chase State: California
Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal Wetland
Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W1
Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT C
(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Cynodon dactylon*	H	FAC	9.		
2. *Juncus* sp.	H	FAC - OBL	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Can't identify Juncus to species, no flower.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)
Depth to Free Water in Pit: ___NA___ (in.)
Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☒ Water Marks
☒ Drift Lines
☒ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks:

SOILS Plot ID: W1 PIT C

Map Unit Name
(Series and Phase) _____Water_____ Drainage Class: _____NA_____

Taxonomy (Subgroup): _____NA_____ Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-17	-	7.5 YR 5/4	NA	NA	Fine- med sand w/ some gravel

Hydric Soil Indicators:

____ Histosol
____ Histic Epipedon
____ Sulfidic Odor
____ Aquic Moisture Regime
____ Reducing Conditions
____ Gleyed or Low-Chroma Colors
____ Concretions
____ High Organic Content in Surface Layer in Sandy Soils
____ Organic Streaking in Sandy Soils
____ Listed on Local Hydric Soils List
____ Listed on National Hydric Soils List
____ Other (Explain in Remarks)

Remarks:

Pit is approximately 150 feet from edge of OHWM (bath tub ring). No hydric soil indicators, but soil is sand.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/18/05

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal Wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W1

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT D

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Quercus* sp.	TR	NL	9.		
2. Pinus sabiniana	TR	NL	10.		
3. Bromus sp.	H	NL	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks: *Quercus* sp. likely *Quercus wislizenii.*

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___NA___ (in.)

Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Approximately 2 feet upslope from OHWM.

SOILS Plot ID: W1 PIT D

Map Unit Name
(Series and Phase) ____Andregg Coarse Sandy Loam, 2-9% slopes_____ Drainage Class: ____Well drained_____

Taxonomy (Subgroup): __Ultic Haploxeroll_____ Field Observations
Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

____ Histosol	____ Concretions
____ Histic Epipedon	____ High Organic Content in Surface Layer in Sandy Soils
____ Sulfidic Odor	____ Organic Streaking in Sandy Soils
____ Aquic Moisture Regime	____ Listed on Local Hydric Soils List
____ Reducing Conditions	____ Listed on National Hydric Soils List
____ Gleyed or Low-Chroma Colors	____ Other (Explain in Remarks)

Remarks:

No pit dug – upland site. No hydric vegetation, no indicators of hydrology.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/05

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal Wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W2

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT A

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Salix gooddingii*	TR	OBL	9.		
2. *Gnaphalium palustre*	H	FACW	10.		
3. *Xanthium strumarium*	H	FAC +	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Also <20% cover of *Cynedon, Spurgularia* sp., *Polygenum*

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___NA___ (in.)

Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☒ Water Marks
☒ Drift Lines
☒ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☒ Oxidized root channels in upper 12 inches
☒ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Damp, but not saturated. Upper layer (clay) is much wetter than middle sand layer

SOILS Plot ID: W2 PIT A

Map Unit Name
(Series and Phase) Water Drainage Class: NA

Taxonomy (Subgroup): NA Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-2	-	10 YR 4/2	10 R 3/3	6%	clay/silt
2-3	-	2.5 Y 5/3	2.5 Y 5/6	30%	silty clay
3-7	-	10 YR 4/2	10 R 3/3	40%	silty clay
7-17	-	2.5 Y 5/4	NA	NA	medium sand

Hydric Soil Indicators:

___	Histosol	___	Concretions
___	Histic Epipedon	X	High Organic Content in Surface Layer in Sandy Soils
___	Sulfidic Odor	___	Organic Streaking in Sandy Soils
___	Aquic Moisture Regime	___	Listed on Local Hydric Soils List
X	Reducing Conditions	___	Listed on National Hydric Soils List
___	Gleyed or Low-Chroma Colors	___	Other (Explain in Remarks)

Remarks:

No hydric indicators below 7-inches. Pit is approximately 5 feet from edge of drainage/creek within riparian corridor.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

Is this Sampling Point Within a Wetland? Yes (No) (Circle)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/05

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal Wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W2

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT B

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Xanthium strumarium*	H	FAC +	9.		
2. *Gnaphalium palustre*	H	FACW	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Also <=20% cover by *Erodium* sp and *Polygonum* sp.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___NA___ (in.)

Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☒ Water Marks
☒ Drift Lines
☒ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Damp soil, but not saturated.

SOILS Plot ID: W2 PIT B

Map Unit Name
(Series and Phase) _____Water_____ Drainage Class: _____NA_____

Field Observations
Taxonomy (Subgroup): _____NA_____ Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-17	-	10 YR 4/3	NA	NA	Fine sand

Hydric Soil Indicators:

____ Histosol
____ Histic Epipedon
____ Sulfidic Odor
____ Aquic Moisture Regime
____ Reducing Conditions
____ Gleyed or Low-Chroma Colors
____ Concretions
____ High Organic Content in Surface Layer in Sandy Soils
____ Organic Streaking in Sandy Soils
____ Listed on Local Hydric Soils List
____ Listed on National Hydric Soils List
____ Other (Explain in Remarks)

Remarks:

Pit B is within OHWM directly adjacent to a riparian area (approximately 50 feet west). Pit A is in riparian area.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/05

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal Wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W2

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT C

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Cynodon dactylon	H	FAC	9.		
			10.		
			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Only species is *Cynodon dactylon*.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___NA___ (in.)

Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Approximately 60 feet west of road, and 100 feet southeast (downslope) of OHWM.

SOILS Plot ID: W2 PIT C

Map Unit Name
(Series and Phase) _____Water_____ Drainage Class: _____NA_____

Field Observations
Taxonomy (Subgroup): _____NA_____ Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-17	-	10 YR 5/3	NA	NA	Fine -medium sand

Hydric Soil Indicators:

____ Histosol	____ Concretions
____ Histic Epipedon	____ High Organic Content in Surface Layer in Sandy Soils
____ Sulfidic Odor	____ Organic Streaking in Sandy Soils
____ Aquic Moisture Regime	____ Listed on Local Hydric Soils List
____ Reducing Conditions	____ Listed on National Hydric Soils List
____ Gleyed or Low-Chroma Colors	____ Other (Explain in Remarks)

Remarks:

No indicators of hydrology

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/18/05

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Interior Live oak woodland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W2

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT D
(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Quercus wislizenii*	TR	NL	9.		
2. *Quercus douglasii*	SH	NL	10.		
3. *Bromus sp.*	H	NL	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks: Oak woodland

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___NA___ (in.)

Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks .
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Pit D located on top of bench above OHWM.

SOILS Plot ID: W2 PIT D

Map Unit Name
(Series and Phase) _____Andregg Coarse Sandy Loam, 2-9% slopes_____ Drainage Class: ____Well drained_____

Taxonomy (Subgroup): __Ultic Haploxeroll_____ Field Observations
Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

____ Histosol	____ Concretions
____ Histic Epipedon	____ High Organic Content in Surface Layer in Sandy Soils
____ Sulfidic Odor	____ Organic Streaking in Sandy Soils
____ Aquic Moisture Regime	____ Listed on Local Hydric Soils List
____ Reducing Conditions	____ Listed on National Hydric Soils List
____ Gleyed or Low-Chroma Colors	____ Other (Explain in Remarks)

Remarks:

Upland site- no pit excavated

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/05
Applicant/Owner: Bureau of Reclamation County: Placer County
Investigator: Keven Ann Colgate, Daniel Chase State: California
Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Cottonwood willow riparian
Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W3
Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT A
(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Cynodon dactylon*	H	FAC	9.		
2. *Xanthium strumarium*	H	FAC +	10.		
3. *Salix gooddingii*	TR	OBL	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Pit is in among willow trees ~ 500-600 feet NE of ramp. Vegetation is relatively dense. Cover ~95-100%

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)
Depth to Free Water in Pit: ___NA___ (in.)
Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☒ Water Marks
☒ Drift Lines
☒ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks:

SOILS Plot ID: W3 PIT A

Map Unit Name
(Series and Phase) _____Water_____ Drainage Class: _____NA_____
Field Observations
Taxonomy (Subgroup): _____NA_____ Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-14	-	7.5 YR 3/2	NA	NA	Fine-med sand
	-				

Hydric Soil Indicators:

____ Histosol
____ Histic Epipedon
____ Sulfidic Odor
____ Aquic Moisture Regime
____ Reducing Conditions
____ Gleyed or Low-Chroma Colors
____ Concretions
____ High Organic Content in Surface Layer in Sandy Soils
____ Organic Streaking in Sandy Soils
____ Listed on Local Hydric Soils List
____ Listed on National Hydric Soils List
____ Other (Explain in Remarks)

Remarks:

Too hard to dig past 13-14 inches. Very compacted. Some loam in texture, still very crumbly.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/05

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Interior live oak woodland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W3

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT B
(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Quercus* sp.	TR	NL	9.		
2. *Heterotheca grandiflora*	H	NL	10.		
3. *Centaurea solstitialis*	H	NL	11.		
4. *Bromus* sp.	H	NL	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks: Upland

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___NA___ (in.)

Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Above OHWM (bath tub ring).

SOILS Plot ID: W3 PIT A

Map Unit Name
(Series and Phase) _____Andregg Coarse Sandy Loam, 2-9% slopes_____ Drainage Class: _____Well drained_____
Field Observations
Taxonomy (Subgroup): ____Ultic Haploxeroll_____ Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-17	-	7.5 YR 5/4	NA	NA	Fine-med-coarse sand

Hydric Soil Indicators:

____ Histosol
____ Histic Epipedon
____ Sulfidic Odor
____ Aquic Moisture Regime
____ Reducing Conditions
____ Gleyed or Low-Chroma Colors
____ Concretions
____ High Organic Content in Surface Layer in Sandy Soils
____ Organic Streaking in Sandy Soils
____ Listed on Local Hydric Soils List
____ Listed on National Hydric Soils List
____ Other (Explain in Remarks)

Remarks:

Upland – no indicators

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/05

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W3

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT C

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Salix* sp.	SH	FAC-OBL	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Willow are juvenile trees or shrubs; can't identify to species.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___0___ (in.)

Depth to Free Water in Pit: ___0___ (in.)

Depth to Saturated Soil ___0___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☒ Saturated in upper 12 inches
☒ Water Marks
☒ Drift Lines
☒ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: No pit dug. Standing water

SOILS Plot ID: W3 PIT C

Map Unit Name
(Series and Phase) _____Water_____ Drainage Class: _____NA_____

Field Observations
Taxonomy (Subgroup): _____NA_____ Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

____ Histosol
____ Histic Epipedon
____ Sulfidic Odor
____ Aquic Moisture Regime
____ Reducing Conditions
____ Gleyed or Low-Chroma Colors
____ Concretions
____ High Organic Content in Surface Layer in Sandy Soils
____ Organic Streaking in Sandy Soils
____ Listed on Local Hydric Soils List
____ Listed on National Hydric Soils List
____ Other (Explain in Remarks)

Remarks:

Area is inundated with OBL vegetation. No pit dug

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

Site located at the toe of the boat launch ramp.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/05

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal Wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W4

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT A

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Salix gooddingii*	TR	OBL	9.		
2. *Juncus* sp.	H	FAC - OBL	10.		
3. *Xanthium strumarium*	H	FAC +	11.		
4. *Salix* sp.	SH	FAC - OBL	12.		
5. *Cynodon dactylon*	H	FAC	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks:

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___NA___ (in.)

Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☒ Water Marks
☒ Drift Lines
☒ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Pit on edge of swale/ depression.

SOILS Plot ID: W4 PIT A

Map Unit Name
(Series and Phase) _____Water_____ Drainage Class: _____NA_____

Field Observations
Taxonomy (Subgroup): _____NA_____ Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-17	-	10 YR 4/2	NA	NA	Fine –med sand

Hydric Soil Indicators:

____ Histosol
____ Histic Epipedon
____ Sulfidic Odor
____ Aquic Moisture Regime
____ Reducing Conditions
____ Gleyed or Low-Chroma Colors
____ Concretions
____ High Organic Content in Surface Layer in Sandy Soils
____ Organic Streaking in Sandy Soils
____ Listed on Local Hydric Soils List
____ Listed on National Hydric Soils List
____ Other (Explain in Remarks)

Remarks:

No hydric indicators, sandy soil.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/05
Applicant/Owner: Bureau of Reclamation County: Placer County
Investigator: Keven Ann Colgate, Daniel Chase State: California
Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Cottonwood willow riparian
Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W4
Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT B
(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Juncus* sp.	H	FAC - OBL	9.		
2. *Mimulus guttatus*	H	OBL	10.		
3. *Xanthium strumarium*	H	FAC +	11.		
4. *Salix gooddingii*	TR	OBL	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Pit in swate/depression. No indicators of flow

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)
Depth to Free Water in Pit: ___NA___ (in.)
Depth to Saturated Soil ___0___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☒ Saturated in upper 12 inches
☒ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☒ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: See comment above

SOILS Plot ID: W4 PIT B

Map Unit Name
(Series and Phase) _____Water_____ Drainage Class: _____NA_____

Field Observations
Taxonomy (Subgroup): _____NA_____ Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-17	-	10 YR 3/1	NA	NA	Fine –med –coarse sand

Hydric Soil Indicators:

___	Histosol	___	Concretions
___	Histic Epipedon	___	High Organic Content in Surface Layer in Sandy Soils
___	Sulfidic Odor	___	Organic Streaking in Sandy Soils
___	Aquic Moisture Regime	___	Listed on Local Hydric Soils List
___	Reducing Conditions	___	Listed on National Hydric Soils List
X	Gleyed or Low-Chroma Colors	___	Other (Explain in Remarks)

Remarks:

Uniform profile. No other indicators.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/18/05
Applicant/Owner: Bureau of Reclamation County: Placer County
Investigator: Keven Ann Colgate, Daniel Chase State: California
Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Interior live oak woodland
Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W4
Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT C
(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Quercus wislizenii*	*TR*	*NL*	9.		
2. *Bromus* sp.	*H*	*NL*	10.		
3. *Epilobium brachycarpum*	*H*	*NL*	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks: Upland community

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)
Depth to Free Water in Pit: ___NA___ (in.)
Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Above OHWM – no indicators of hydrology.

SOILS Plot ID: W4 PIT C

Map Unit Name
(Series and Phase) _____Xerothents, cut and fill areas_____ Drainage Class: _Well/Excessively drained_
Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

____ Histosol	____ Concretions
____ Histic Epipedon	____ High Organic Content in Surface Layer in Sandy Soils
____ Sulfidic Odor	____ Organic Streaking in Sandy Soils
____ Aquic Moisture Regime	____ Listed on Local Hydric Soils List
____ Reducing Conditions	____ Listed on National Hydric Soils List
____ Gleyed or Low-Chroma Colors	____ Other (Explain in Remarks)

Remarks:

No pit dug

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/05

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W5

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT A

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Cynodon dactylon*	H	FAC	9.		
2. *Xanthium strumarium*	H	FAC +	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks:

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___NA___ (in.)

Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☒ Water Marks
☒ Drift Lines
☒ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Approximately 150 feet from toe of dike 6.

SOILS Plot ID: W5 PIT A

Map Unit Name
(Series and Phase) _____Water_____ Drainage Class: _____NA_____

Field Observations
Taxonomy (Subgroup): _____NA_____ Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-15	-	10 YR 4/3	NA	NA	Fine sand
15-17	-	7.5 YR 4/4	7.5 YR 5/6	25-30%	Fine sand

Hydric Soil Indicators:

____	Histosol	____	Concretions
____	Histic Epipedon	____	High Organic Content in Surface Layer in Sandy Soils
____	Sulfidic Odor	____	Organic Streaking in Sandy Soils
____	Aquic Moisture Regime	____	Listed on Local Hydric Soils List
____	Reducing Conditions	____	Listed on National Hydric Soils List
X	Gleyed or Low-Chroma Colors	____	Other (Explain in Remarks)

Remarks:
]
Mottes at 15 inches.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/05

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Riparian

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W5

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT B

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Xanthium strumarium*	H	FAC +	9.		
2. *Euthamia occidentalis*	SH	OBL	10.		
3. *Gnaphalium palustre*	SH	FACW	11.		
4. *Cynodon dactylon*	H	FAC	12.		
5. *Salix gooddingii*	TR	OBL	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Area is in a slight depression associated with willow forest/grove.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___NA___ (in.)

Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☒ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Very wet – Not quite saturated

Map Unit Name
(Series and Phase) _____Water_____ Drainage Class: _____NA_____

Taxonomy (Subgroup): _____NA_____ Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-2	-	5 YR 3/2	NA	NA	Fine loamy sand
2-17	-	10 YR 4/2	7.5 YR 4/4	45%	Med-coarse sand

Hydric Soil Indicators:

____ Histosol
____ Histic Epipedon
____ Sulfidic Odor
____ Aquic Moisture Regime
____ Reducing Conditions
____ Gleyed or Low-Chroma Colors
____ Concretions
____ High Organic Content in Surface Layer in Sandy Soils
____ Organic Streaking in Sandy Soils
____ Listed on Local Hydric Soils List
____ Listed on National Hydric Soils List
____ Other (Explain in Remarks)

Remarks:

Mottles below 2 inches

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/18/05
Applicant/Owner: Bureau of Reclamation County: Placer County
Investigator: Keven Ann Colgate, Daniel Chase State: California
Do Normal Circumstances exist on the site? ☐Yes ☒No Community ID: Ruderal/developed
Is the site significantly disturbed (Atypical Situation)? ☒Yes ☐No Plot ID: W5
Is the area a potential Problem Area? ☒Yes ☐No Transect ID: TR1 PIT C
(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. no vegetation			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks: Point is just above where Bermuda (*Cynodon dactylon*) grass is dominant.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)
Depth to Free Water in Pit: ___NA___ (in.)
Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Man-made rip rap slope.

SOILS Plot ID: W5 PIT C

Map Unit Name
(Series and Phase) _____Water_____ Drainage Class: _____NA_____

Field Observations
Taxonomy (Subgroup): _____NA_____ Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

____ Histosol
____ Histic Epipedon
____ Sulfidic Odor
____ Aquic Moisture Regime
____ Reducing Conditions
____ Gleyed or Low-Chroma Colors
____ Concretions
____ High Organic Content in Surface Layer in Sandy Soils
____ Organic Streaking in Sandy Soils
____ Listed on Local Hydric Soils List
____ Listed on National Hydric Soils List
____ Other (Explain in Remarks)

Remarks:

Site is on side of dike. Man made rip rap rock slope. No pit excavated.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/17/05
Applicant/Owner: Bureau of Reclamation County: Placer County
Investigator: Keven Ann Colgate, Daniel Chase State: California
Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Grassland /Ruderal
Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W6
Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT A
(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Cynodon dactylon	H	FAC	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Thick cover, healthy green color.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)
Depth to Free Water in Pit: ___NA___ (in.)
Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☒ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Site is below OHWM.

SOILS Plot ID: W6 PIT A

Map Unit Name
(Series and Phase) _____Water_____ Drainage Class: _____NA_____
Field Observations
Taxonomy (Subgroup): _____NA_____ Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-17	-	10 YR 4/3	NA	NA	Fine /med sand

Hydric Soil Indicators:

____ Histosol	____ Concretions
____ Histic Epipedon	____ High Organic Content in Surface Layer in Sandy Soils
____ Sulfidic Odor	____ Organic Streaking in Sandy Soils
____ Aquic Moisture Regime	____ Listed on Local Hydric Soils List
____ Reducing Conditions	____ Listed on National Hydric Soils List
____ Gleyed or Low-Chroma Colors	____ Other (Explain in Remarks)

Remarks:

Very sandy , dry

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

Sandy soil

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/17/05
Applicant/Owner: Bureau of Reclamation County: Placer County
Investigator: Keven Ann Colgate, Daniel Chase State: California
Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Interior live oak woodland
Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W6
Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT B
(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Quercus* sp.	TR	NL	9.		
2. *Centaurea solstitialis*	H	NL	10.		
3. *Bromus* sp.	H	NL	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks: Upland vegetation

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)
Depth to Free Water in Pit: ___NA___ (in.)
Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test -
☐ Other (explain in Remarks)

Remarks: Above OHWM. Point is approximately 4 feet upslope of bath tub ring.

SOILS Plot ID: W6 PIT B

Map Unit Name
(Series and Phase) ___Andregg Coarse Sandy Loam, rocky, 15-30% slopes___ Drainage Class: _____Well drained_____

Field Observations
Taxonomy (Subgroup): _____Ultic Haploxeroll_____ Confirm Mapped Type? Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

____ Histosol
____ Histic Epipedon
____ Sulfidic Odor
____ Aquic Moisture Regime
____ Reducing Conditions
____ Gleyed or Low-Chroma Colors
____ Concretions
____ High Organic Content in Surface Layer in Sandy Soils
____ Organic Streaking in Sandy Soils
____ Listed on Local Hydric Soils List
____ Listed on National Hydric Soils List
____ Other (Explain in Remarks)

Remarks:

No pit dig – upland site.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/17/05
Applicant/Owner: Bureau of Reclamation County: Placer County
Investigator: Keven Ann Colgate, Daniel Chase State: California
Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland
Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W7
Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT A
(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Cynodon dactylon	H	FAC	9.		
2. Xanthium strumarium	H	FAC +	10.		
3. Gnaphalium palustre	H	FACW	11.		
4. Salix gooddingii	TR	OBL	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Wetland vegetation

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)
Depth to Free Water in Pit: ___NA___ (in.)
Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☒ Water Marks
☒ Drift Lines
☒ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☒ Oxidized root channels in upper 12 inches
☒ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Slight depression

SOILS Plot ID: W7 PIT A

Map Unit Name
(Series and Phase) _____Water_____ Drainage Class: _____NA_____

Field Observations
Taxonomy (Subgroup): _____NA_____ Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-16	-	10 YR 4/2	10 YR 5/8	<10%	Fine silty sand
16-17	-	2.5 YR 4/2	NA	NA	Silt

Hydric Soil Indicators:

____ Histosol
____ Histic Epipedon
____ Sulfidic Odor
____ Aquic Moisture Regime
____ Reducing Conditions
____ Gleyed or Low-Chroma Colors
____ Concretions
____ High Organic Content in Surface Layer in Sandy Soils
____ Organic Streaking in Sandy Soils
____ Listed on Local Hydric Soils List
____ Listed on National Hydric Soils List
____ Other (Explain in Remarks)

Remarks:

From 16-17 inches lots of oxidized feeder roots. From 0-16 inches some oxidized roots and patches of mottling.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/17/05
Applicant/Owner: Bureau of Reclamation County: Placer County
Investigator: Keven Ann Colgate, Daniel Chase State: California
Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland
Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W7
Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT B
(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Juncus* sp.	H	FAC - OBL	9.		
2. *Cynodon dactylon*	H	FAC	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Wetland vegetation

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)
Depth to Free Water in Pit: ___NA___ (in.)
Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☒ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Below OHWM

SOILS Plot ID: W7 PIT B

Map Unit Name
(Series and Phase) _____Water_____ Drainage Class: _____NA_____

Field Observations
Taxonomy (Subgroup): _____NA_____ Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-14	-	7.5 YR 3/3	4.5 YR 5/8	15%	sand

Hydric Soil Indicators:

____ Histosol
____ Histic Epipedon
____ Sulfidic Odor
____ Aquic Moisture Regime
____ Reducing Conditions
____ Gleyed or Low-Chroma Colors
____ Concretions
____ High Organic Content in Surface Layer in Sandy Soils
____ Organic Streaking in Sandy Soils
____ Listed on Local Hydric Soils List
____ Listed on National Hydric Soils List
____ Other (Explain in Remarks)

Remarks:

Below 14 inches too hard to dig. Mottling real spotty; concentrated from 2-6-inches.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

Sandy soil

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/17/05
Applicant/Owner: Bureau of Reclamation County: Placer County
Investigator: Keven Ann Colgate, Daniel Chase State: California
Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Interior live oak woodland
Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W7
Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT C
(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Quercus sp.	TR	NL	9.		
2. Pinus sabiniana	TR	NL	10.		
3. Heterotheca grandiflora	H	NL	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks: Upland vegetation.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)
Depth to Free Water in Pit: ___NA___ (in.)
Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Site is above OHWM in oak woodland, no indicators of hydrology.

SOILS Plot ID: W7 PIT C

Map Unit Name
(Series and Phase) ___Andregg Coarse Sandy Loam, rocky, 15-30% slopes___ Drainage Class: _____Well drained_____
Field Observations
Taxonomy (Subgroup): _____Ultic Haploxeroll_____ Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

____ Histosol
____ Histic Epipedon
____ Sulfidic Odor
____ Aquic Moisture Regime
____ Reducing Conditions
____ Gleyed or Low-Chroma Colors
____ Concretions
____ High Organic Content in Surface Layer in Sandy Soils
____ Organic Streaking in Sandy Soils
____ Listed on Local Hydric Soils List
____ Listed on National Hydric Soils List
____ Other (Explain in Remarks)

Remarks:

No pit dug. Upland site

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/17/05

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W8

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT A

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Cephalanthus occidentalis var. *californicus*	SH	OBL	9.		
2. Cynodon dactylon	H	FAC	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks:

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___NA___ (in.)

Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☒ Water Marks
☒ Drift Lines
☒ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Very rocky site – lots of drift.

Map Unit Name
(Series and Phase) _____Water_____ Drainage Class: _____NA_____
Field Observations
Taxonomy (Subgroup): _____NA_____ Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-2		7.5 YR 3/3	NA	NA	Med-crs-sand w/ cobbles
2-7		10 YR 3/4	10 YR 5/8	10%	Med-coarse sand
7-14		7.5 YR 3/3	NA	NA	Med-coarse sand

Hydric Soil Indicators:

____ Histosol
____ Histic Epipedon
____ Sulfidic Odor
____ Aquic Moisture Regime
____ Reducing Conditions
____ Gleyed or Low-Chroma Colors
____ Concretions
____ High Organic Content in Surface Layer in Sandy Soils
____ Organic Streaking in Sandy Soils
____ Listed on Local Hydric Soils List
____ Listed on National Hydric Soils List
____ Other (Explain in Remarks)

Remarks:

Very rocky, can't dig below 14". Mottles from 2-7 inches.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/17/05

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Ruderal

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W8

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT B

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Nicotiana glauca	SH	FAC	9.		
2. Foeniculum vulgare	SH	FACU	10.		
3. Centaurea solstitialis	H	NL	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 30%

Remarks: Ruderal upland vegetation

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___NA___ (in.)

Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Site is approximately 4 feet above OHWM on side slope of rip rap dike. No indicators of hydrology.

SOILS Plot ID: W8 PIT B

Map Unit Name
(Series and Phase) ___Andregg Coarse Sandy Loam, rocky 15-30% slopes___ Drainage Class: __Well drained_____

Taxonomy (Subgroup): ___Ultic Haploxeroll_____ Field Observations
Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

____ Histosol
____ Histic Epipedon
____ Sulfidic Odor
____ Aquic Moisture Regime
____ Reducing Conditions
____ Gleyed or Low-Chroma Colors
____ Concretions
____ High Organic Content in Surface Layer in Sandy Soils
____ Organic Streaking in Sandy Soils
____ Listed on Local Hydric Soils List
____ Listed on National Hydric Soils List
____ Other (Explain in Remarks)

Remarks:

No pit dug. Site is on rip rap dike

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/17/05

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W9

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT A

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Juncus* sp.	H	FAC-CBL	9.		
2. *Cynodon dactylon*	H	FAC	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Wetland vegetation

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___NA___ (in.)

Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☒ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Site within OHWM of Folsom Lake.

SOILS Plot ID: W9 PIT A

Map Unit Name
(Series and Phase) _____Water_____ Drainage Class: _____NA_____
Field Observations
Taxonomy (Subgroup): _____NA_____ Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-10	-	10 YR 5/3	10 YR 6/8	<10%	Fine- med sand
10-17	-	NA	NA	NA	Boulder-bedrock

Hydric Soil Indicators:

____ Histosol
____ Histic Epipedon
____ Sulfidic Odor
____ Aquic Moisture Regime
____ Reducing Conditions
____ Gleyed or Low-Chroma Colors
____ Concretions
____ High Organic Content in Surface Layer in Sandy Soils
____ Organic Streaking in Sandy Soils
____ Listed on Local Hydric Soils List
____ Listed on National Hydric Soils List
____ Other (Explain in Remarks)

Remarks:

Sandy soil with mottles. Chroma too high for hydric status.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/17/05

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W9

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT B

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Cynodon dactylon	H	FAC	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: 80-90% cover in plot

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___NA___ (in.)

Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☒ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Site is approximately 60 feet downslope from high water mark.

SOILS Plot ID: W9 PIT B

Map Unit Name
(Series and Phase) _____Water_____ Drainage Class: _____NA_____
Field Observations
Taxonomy (Subgroup): _____NA_____ Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-17	-	10 YR 4/3	NA	NA	Fine- med-coarse sand

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

Dry /sandy soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/17/05
Applicant/Owner: Bureau of Reclamation County: Placer County
Investigator: Keven Ann Colgate, Daniel Chase State: California
Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Interior live oak woodland
Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W9
Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT C
(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Quercus* sp.	TR	NL	9.		
2. *Marrubium vulgare*	H	FAC	10.		
3. *Hirschfeldia incana*	H	NL	11.		
4. *Bromus* sp.	H	NL	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 25%

Remarks: Upland vegetation

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)
Depth to Free Water in Pit: ___NA___ (in.)
Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☒ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: No indicators of hydrology

SOILS Plot ID: W9 PIT C

Map Unit Name
(Series and Phase) _____Xerothents, cut and fill areas_____ Drainage Class: _Well / Excessively Drained

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

____ Histosol	____ Concretions
____ Histic Epipedon	____ High Organic Content in Surface Layer in Sandy Soils
____ Sulfidic Odor	____ Organic Streaking in Sandy Soils
____ Aquic Moisture Regime	____ Listed on Local Hydric Soils List
____ Reducing Conditions	____ Listed on National Hydric Soils List
____ Gleyed or Low-Chroma Colors	____ Other (Explain in Remarks)

Remarks:

No soil pit excavated. Large boulders.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/05

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W10

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT A

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix sp.	SH	FAC - OBL	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Small shrub variety of willow. Very resilient against inundation for long periods. Very healthy patch.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___NA___ (in.)

Depth to Saturated Soil ___15___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☒ Saturated in upper 12 inches
☒ Water Marks
☒ Drift Lines
☒ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: This pit is below the point of >5% total vegetation cover.

SOILS Plot ID: W10 PIT A

Map Unit Name
(Series and Phase) _____Water_____ Drainage Class: _____NA_____

Field Observations
Taxonomy (Subgroup): _____NA_____ Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-15	-	10 YR 5/6	NA	NA	Med-coarse sand
15-17	-	2.5 YR 3/1	NA	NA	Med-coarse sand w/ some silty clay

Hydric Soil Indicators:

___	Histosol	___	Concretions
___	Histic Epipedon	___	High Organic Content in Surface Layer in Sandy Soils
___	Sulfidic Odor	___	Organic Streaking in Sandy Soils
___	Aquic Moisture Regime	___	Listed on Local Hydric Soils List
___	Reducing Conditions	___	Listed on National Hydric Soils List
X	Gleyed or Low-Chroma Colors	___	Other (Explain in Remarks)

Remarks:

Very good drainage, saturated at about 10 inches.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/17/05
Applicant/Owner: Bureau of Reclamation County: Placer County
Investigator: Keven Ann Colgate, Daniel Chase State: California
Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland
Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W10
Is the area a potential Problem Area? ☐Yes ☒No Transect ID: TR1 PIT B
(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Cynodon dactylon	H	FAC	9.		
2. Juncus sp.	H	FAC - OBL	10.		
3. Xanthium strumarium	H	FAC +	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Wetland vegetation

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)
Depth to Free Water in Pit: ___NA___ (in.)
Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☒ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☒ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Below OHWM

SOILS Plot ID: W10 PIT B

Map Unit Name
(Series and Phase) _____ Drainage Class: _____
Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-16	-	7.5 YR 4/3	10 YR 6/8	< 10 %	Silty sand

Hydric Soil Indicators:

____ Histosol
____ Histic Epipedon
____ Sulfidic Odor
____ Aquic Moisture Regime
____ Reducing Conditions
____ Gleyed or Low-Chroma Colors
____ Concretions
____ High Organic Content in Surface Layer in Sandy Soils
____ Organic Streaking in Sandy Soils
____ Listed on Local Hydric Soils List
____ Listed on National Hydric Soils List
____ Other (Explain in Remarks)

Remarks:

Oxidized root channels. Very very hard dry massive soil. Some mottling.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/17/05

Applicant/Owner: Bureau of Reclamation County: Placer County

Investigator: Keven Ann Colgate, Daniel Chase State: California

Do Normal Circumstances exist on the site? ☐Yes ☒No Community ID: Developed

Is the site significantly disturbed (Atypical Situation)? ☒Yes ☐No Plot ID: W10

Is the area a potential Problem Area? ☒Yes ☐No Transect ID: TR1 PIT C

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Festuca* sp.*	H	FAC	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Site is within an irrigated park with upland, maintained vegetation.
* lawn grass

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: ___NA___ (in.)

Depth to Free Water in Pit: ___NA___ (in.)

Depth to Saturated Soil ___NA___ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: No hydrology from lake – site is irrigated.

SOILS Plot ID: W10 PIT C

Map Unit Name
(Series and Phase) _____Xerothents, cut and fill areas_____ Drainage Class: _Well / Excessively Drained

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

____ Histosol	____ Concretions
____ Histic Epipedon	____ High Organic Content in Surface Layer in Sandy Soils
____ Sulfidic Odor	____ Organic Streaking in Sandy Soils
____ Aquic Moisture Regime	____ Listed on Local Hydric Soils List
____ Reducing Conditions	____ Listed on National Hydric Soils List
____ Gleyed or Low-Chroma Colors	____ Other (Explain in Remarks)

Remarks:

No pit dug. Site is on a rip rap slope above OHWM.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/2006

Applicant/Owner: Bureau of Reclamation County: El Dorado

Investigator: Gretchen Lebednik, Jelica White State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W11 TR1 Pit A

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W11 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Erodium moschatum*	H	NL	9.		
2. *Salix gooddingii*	T	OBL	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 50%

Remarks: Lower edge of vegetated zone, many seedlings beginning to grow

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: >15 (in.)

Depth to Saturated Soil >15 (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☒ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Below the OHWL for Folsom Reservoir

SOILS Plot ID: W11 TR1 Pit A

Map Unit Name
(Series and Phase) Auburn very rocky silt loam Drainage Class: well-drained
Field Observations
Taxonomy (Subgroup): Lithic Haploxerept Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
8		2.5YR 4/2	none	none	

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/2006

Applicant/Owner: Bureau of Reclamation County: El Dorado

Investigator: Gretchen Lebednik, Jelica White State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W11 TR1 Pit B

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W11 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Cynodon dactylon*	H	FAC	9.		
2. *Erodium moschatum*	H	NL	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 50%

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: >14 (in.)

Depth to Saturated Soil >14 (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Below the OHWL for Folsom Reservoir

SOILS Plot ID: W11 TR1 Pit B

Map Unit Name
(Series and Phase) Auburn very rocky silt loam Drainage Class: well-drained
Field Observations
Taxonomy (Subgroup): Lithic Haploxerept Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
8		7.5YR 5/1	7.5YR 5/6	Increases with depth	Silty, with some sand, cobble, gravel

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/2006

Applicant/Owner: Bureau of Reclamation County: El Dorado

Investigator: Gretchen Lebednik, Jelica White State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W11 TR1 Pit C1

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W11 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Spergularia* sp.		FAC- to NL	9.		
2. *Gnaphalium* sp.	H	varies	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0% to 50%

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: >16 (in.)

Depth to Saturated Soil >16 (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Below the OHWL for Folsom Reservoir

SOILS Plot ID: W11 TR1 Pit C1

Map Unit Name
(Series and Phase) Auburn very rocky silt loam Drainage Class: well-drained
Field Observations
Taxonomy (Subgroup): Lithic Haploxerept Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
8		2.5Y 5/2	7.5YR 5/6	Frequent, medium	

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/2006

Applicant/Owner: Bureau of Reclamation County: El Dorado

Investigator: Gretchen Lebednik, Jelica White State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W11 TR1 Pit C2

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W11 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Juncus* sp.	H	OBL to FAC	9.		
2. *Cynodon dactylon*	H	FAC	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: __N/A__ (in.)

Depth to Free Water in Pit: __>14__ (in.)

Depth to Saturated Soil __>14__ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Below the OHWL for Folsom Reservoir

SOILS Plot ID: W11 TR1 Pit C2

Map Unit Name
(Series and Phase) Auburn very rocky silt loam Drainage Class: well-drained
Field Observations
Taxonomy (Subgroup): Lithic Haploxerept Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
8	2.5YR 4/2	7.5YR 5/6			

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/2006
Applicant/Owner: Bureau of Reclamation County: El Dorado
Investigator: Gretchen Lebednik, Jelica White State: California
Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Oak woodland
Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W11 TR1 Pit D
Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W11 TR1
(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Pinus sabiniana*	T	NL	9.		
2. *Quercus wislizenii*	T	NL	10.		
3. *Heteromeles arbutifolia*	S	NL	11.		
4. *Avena* sp.	H	NL	12.		
5. *Trifolium hirtum*	H	NL	13.		
6. *Quercus douglasii*	T	NL	14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil _____ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Above the OHWL for Folsom Reservoir

SOILS Plot ID: W11 TR1 Pit D

Map Unit Name
(Series and Phase) Auburn very rocky silt loam Drainage Class: well-drained
Field Observations
Taxonomy (Subgroup): Lithic Haploxerept Confirm Mapped Type? Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

No hydric vegetation, no pit dug

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes No

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/2005

Applicant/Owner: Bureau of Reclamation County: El Dorado

Investigator: Gretchen Lebednik, Jelica White State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W12 TR1 Pit A

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W12 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Cynodon dactylon*	H	FAC	9.		
2. *Spergularia* sp.	H	FAC- to NL	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 50%

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: >15 (in.)

Depth to Saturated Soil >15 (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Below the OHWL for Folsom Reservoir

SOILS Plot ID: W12 TR1 Pit A

Map Unit Name
(Series and Phase) Auburn very rocky silt loam Drainage Class: well-drained
Field Observations
Taxonomy (Subgroup): Lithic Haploxerept Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
8		2.5YR 3/2	7.5YR 5/6	Infrequent, medium	Some cobbles

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:
Uniform throughout.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/2005

Applicant/Owner: Bureau of Reclamation County: El Dorado

Investigator: Gretchen Lebednik, Jelica White State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Oak woodland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W12 TR1 Pit B

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W12 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Quercus wislizenii*	T	NL	9.		
2. *Bromus diandrus*	H	NL	10.		
3. *Trifolium hirtum*	H	NL	11.		
4. *Bromus hordeaceus*	H	FACU-	12.		
5. *Quercus wislizenii*	S	NL	13.		
6. *Baccharis pilularis*	S	NL	14.		
7. *Toxicodendron diversilobum*	S	NL	15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: >12 (in.)

Depth to Saturated Soil >12 (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Above the OHWL for Folsom Reservoir. Boulder at 12-inch depth

SOILS Plot ID: W12 TR1 Pit B

Map Unit Name
(Series and Phase) Auburn very rocky silt loam Drainage Class: well-drained

Field Observations
Taxonomy (Subgroup): Lithic Haploxerept Confirm Mapped Type? Yes No Similar

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
8		2.5YR 4/4			Cobbles throughout

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/2005

Applicant/Owner: Bureau of Reclamation County: El Dorado

Investigator: Gretchen Lebednik, Jelica White State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W13 TR1 Pit A

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W13 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Cynodon dactylon*	H	FAC	9.		
2. *Spergularia* sp.	H	FAC- to NL	10.		
3. *Salix gooddingii*	S	OBL	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 67%

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: >16 (in.)

Depth to Saturated Soil >16 (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Below the OHWL for Folsom Reservoir

SOILS Plot ID: W13 TR1 Pit A

Map Unit Name
(Series and Phase) Auburn very rocky silt loam Drainage Class: well-drained
Field Observations
Taxonomy (Subgroup): Lithic Haploxerept Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
8		2.5YR 5/2	7.5YR 5/6		

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/2005

Applicant/Owner: Bureau of Reclamation County: El Dorado

Investigator: Gretchen Lebednik, Jelica White State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Oak woodland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W13 TR1 Pit B

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W13 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Pinus sabiniana*	T	NL	9.		
2. *Quercus wislizenii*	T	NL	10.		
3. *Heteromeles arbutifolia*	S	NL	11.		
4. *Toxicodendron diversilobum*	S	NL	12.		
5. *Bromus diandrus*	H	NL	13.		
6. *Avena* sp.	H	NL	14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil _____ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Above the OHWL for Folsom Reservoir

SOILS Plot ID: W13 TR1 Pit B

Map Unit Name
(Series and Phase) Auburn very rocky silt loam Drainage Class: well-drained
Field Observations
Taxonomy (Subgroup): Lithic Haploxerept Confirm Mapped Type? Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

No wetland vegetation, no soil pit dug

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes No

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/2005

Applicant/Owner: Bureau of Reclamation County: El Dorado

Investigator: Gretchen Lebednik, Jelica White State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W14 TR1 Pit A

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W14 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Cynodon dactylon*	H	FAC	9.		
2. *Spergularia* sp.	H	FAC- to NL	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 50%

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: >16 (in.)

Depth to Saturated Soil >16 (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☒ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Below the OHWL for Folsom Reservoir

SOILS Plot ID: W14 TR1 Pit A

Map Unit Name
(Series and Phase) Auburn very rocky silt loam Drainage Class: well-drained
Field Observations
Taxonomy (Subgroup): Lithic Haploxerept Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
8		2.5YR 4/2	7.5YR 5/6	Medium, frequent	

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/16/2005

Applicant/Owner: Bureau of Reclamation County: El Dorado

Investigator: Gretchen Lebednik, Jelica White State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Annual grassland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W14 TR1 Pit B

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W14 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Bromus diandrus*	H	NL	9.		
2. *Bromus hordeaceus*	H	FACU-	10.		
3. *Centaurium solstitialis*	H	NL	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil _____ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Above the OHWL for Folsom Reservoir

SOILS Plot ID: W14 TR1 Pit B

Map Unit Name
(Series and Phase) Auburn very rocky silt loam Drainage Class: well-drained
Field Observations
Taxonomy (Subgroup): Lithic Haploxerept Confirm Mapped Type? Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

No hydric vegetation, no soil pit dug

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes No

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/17/2005

Applicant/Owner: Bureau of Reclamation County: Sacramento

Investigator: Gretchen Lebednik, Jelica White State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland/riparian

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W15 TR1 Pit A

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W15 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Cynodon dactylon*	H	FAC	9.		
2. *Spergularia* sp.	H	FAC- to NL	10.		
3. *Salix gooddingii*	T	OBL	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 67%

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: >15 (in.)

Depth to Saturated Soil >15 (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Below the OHWL for Folsom Reservoir

SOILS Plot ID: W15 TR1 Pit A

Map Unit Name
(Series and Phase) Andregg coarse sandy loam Drainage Class: well-drained

Field Observations
Taxonomy (Subgroup): Ultic Haploxeroll Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
8		2.5YR 4/2	7.5YR 5/6	Large, frequent	More silt, less sand

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/17/2005

Applicant/Owner: Bureau of Reclamation County: Sacramento

Investigator: Gretchen Lebednik, Jelica White State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Oak woodland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W15 TR1 Pit B

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W15 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Quercus wislizenii*	T	NL	9.		
2. *Quercus wislizenii*	S	NL	10.		
3. *Bromus diandrus*	H	NL	11.		
4. *Bromus hordeaceus*	H	FACU-	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil _____ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Above the OHWL for Folsom Reservoir

SOILS Plot ID: W15 TR1 Pit B

Map Unit Name
(Series and Phase) Andregg coarse sandy loam Drainage Class: well-drained
Field Observations
Taxonomy (Subgroup): Ultic Haploxeroll Confirm Mapped Type? Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

No wetland vegetation; no soil pit dug

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes No

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/17/2005

Applicant/Owner: Bureau of Reclamation County: Sacramento

Investigator: Gretchen Lebednik, Jelica White State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W16 TR1 Pit A

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W16 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Cynodon dactylon*	H	FAC	9.		
2. *Spergularia* sp.	H	FAC- to NL	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: >15 (in.)

Depth to Saturated Soil >15 (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☒ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Below the OHWL for Folsom Reservoir

SOILS Plot ID: W16 TR1 Pit A

Map Unit Name
(Series and Phase) Andregg coarse sandy loam Drainage Class: well-drained

Field Observations
Taxonomy (Subgroup): Ultic Haploxeroll Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
8		2.5YR 4/2	7.5YR 5/6	Abundant throughout	More silt, less sand

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/17/2005

Applicant/Owner: Bureau of Reclamation County: Sacramento

Investigator: Gretchen Lebednik, Jelica White State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Oak woodland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W16 TR1 Pit

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W16 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Quercus wislizenii*	T	NL	9.		
2. *Bromus diandrus*	H	NL	10.		
3. *Avena* sp.	H	NL	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil _____ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks:

SOILS Plot ID: W16 TR1 Pit

Map Unit Name
(Series and Phase) Andregg coarse sandy loam Drainage Class: well-drained
Field Observations
Taxonomy (Subgroup): Ultic Haploxeroll Confirm Mapped Type? Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

No wetland vegetation, no pit dug

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes No

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/17/2005

Applicant/Owner: Bureau of Reclamation County: Sacramento

Investigator: Gretchen Lebednik, Jelica White State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland/horticultural

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W17 TR1 Pit A

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W17 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Populus fremontii* ssp. *fremontii*	T	FAC+	9.		
2. *Eucalyptus* sp.	T	NL	10.		
3. *Cynodon dactylon*	H	FAC	11.		
4. *Spergularia* sp.	H	FAC- to NL	12.		
5. *Eremocarpus setigerus*	H	NL	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 20%

Remarks: Includes woody species that appear to be remnant horticultural plantings

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: >16 (in.)

Depth to Saturated Soil >16 (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Below the OHWL for Folsom Reservoir

SOILS Plot ID: W17 TR1 Pit A

Map Unit Name
(Series and Phase) Andregg coarse sandy loam Drainage Class: well-drained
Field Observations
Taxonomy (Subgroup): Ultic Haploxeroll Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
8		2.5YR 4/2	7.5YR 5/6	Large, common	Silty, not much sand, gravel

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/17/2005

Applicant/Owner: Bureau of Reclamation County: Sacramento

Investigator: Gretchen Lebednik, Jelica White State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W17 TR1 Pit B

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W17 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Eremocarpus setigerus*	H	NL	9.		
2. *Spergularia* sp.	H	FAC- to NL	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: >13.5 (in.)

Depth to Saturated Soil >13.5 (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☒ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Below the OHWL for Folsom Reservoir

SOILS Plot ID: W17 TR1 Pit B

Map Unit Name
(Series and Phase) Andregg coarse sandy loam Drainage Class: well-drained
Field Observations
Taxonomy (Subgroup): Ultic Haploxeroll Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
8		10YR 3/2	7.5YR 5/6	Few, small, infrequent	Silt & gravel

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/17/2005

Applicant/Owner: Bureau of Reclamation County: Sacramento

Investigator: Gretchen Lebednik, Jelica White State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Oak woodland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W17 TR1 Pit C

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W17 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Quercus wislizenii*	T	NL	9.		
2. *Bromus diandrus*	H	NL	10.		
3. *Bromus hordeaceus*	H	FACU-	11.		
4. *Centaurea solstitialis*	H	NL	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil _____ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Above the OHWL for Folsom Reservoir

SOILS Plot ID: W17 TR1 Pit C

Map Unit Name
(Series and Phase) Andregg coarse sandy loam Drainage Class: well-drained
Field Observations
Taxonomy (Subgroup): Ultic Haploxeroll Confirm Mapped Type? Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

No wetland vegetation, no pit dug

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes No

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/17/2005
Applicant/Owner: Bureau of Reclamation County: Sacramento
Investigator: Gretchen Lebednik, Jelica White State: California
Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland
Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W18 TR1 Pit A
Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W18 TR1
(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Cynodon dactylon*	H	FAC	9.		
2. *Spergularia* sp.	H	FAC- to NL	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)
Depth to Free Water in Pit: >15 (in.)
Depth to Saturated Soil >15 (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☒ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Below the OHWL for Folsom Reservoir

SOILS Plot ID: W18 TR1 Pit A

Map Unit Name
(Series and Phase) Andregg coarse sandy loam Drainage Class: well-drained

Field Observations
Taxonomy (Subgroup): Ultic Haploxeroll Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
8		2.5YR 4/2	7.5YR 5/6	Small, infrequent	

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/17/2005

Applicant/Owner: Bureau of Reclamation County: Sacramento

Investigator: Gretchen Lebednik, Jelica White State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Oak woodland/riparian

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W18 TR1 Pit B

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W18 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Quercus wislizenii*	T	NL	9.		
2. *Populus fremontii* ssp. *fremontii*	T	FAC+	10.		
3. *Quercus douglasii*	T	NL	11.		
4. *Salix gooddingii*	T	OBL	12.		
5. *Cynodon dactylon*	H	FAC	13.		
6. *Phyla nodiflora*	H	FACW	14.		
7. *Kickxia elatine*	H	NI	15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 67%

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: >15 (in.)

Depth to Saturated Soil >15 (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☒ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Below the OHWL for Folsom Reservoir

SOILS Plot ID: W18 TR1 Pit B

Map Unit Name
(Series and Phase) Andregg coarse sandy loam Drainage Class: well-drained

Field Observations
Taxonomy (Subgroup): Ultic Haploxeroll Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
8		2.5YR 4/2	7.5YR 5/6	Small, infrequent	silty

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/17/2005

Applicant/Owner: Bureau of Reclamation County: Sacramento

Investigator: Gretchen Lebednik, Jelica White State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Oak woodland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W18 TR1 Pit C

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W19 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Quercus wislizenii*	T	NL	9.		
2. *Bromus hordeaceus*	H	FACU-	10.		
3. *Trifolium hirtum*	H	NL	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil _____ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Above the OHWL for Folsom Reservoir

SOILS Plot ID: W18 TR1 Pit C

Map Unit Name
(Series and Phase) Andregg coarse sandy loam Drainage Class: well-drained
Field Observations
Taxonomy (Subgroup): Ultic Haploxeroll Confirm Mapped Type? Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

No wetland vegetation, no pit dug

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes No

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/17/2005

Applicant/Owner: Bureau of Reclamation County: Sacramento

Investigator: Gretchen Lebednik, Jelica White State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: riparian

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W19 TR1 Pit A

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W19 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Salix gooddingii*	T	OBL	9.		
2. *Cynodon dactylon*	H	FAC	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: >17 (in.)

Depth to Saturated Soil >17 (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Below the OHWL for Folsom Reservoir

SOILS Plot ID: W19 TR1 Pit A

Map Unit Name
(Series and Phase) Andregg coarse sandy loam Drainage Class: well-drained
Field Observations
Taxonomy (Subgroup): Ultic Haploxeroll Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
8		10YR 3/2	7/5YR 5/6	few , infrequent	

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks: Site limited to 2 willow trees

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 11/17/2005

Applicant/Owner: Bureau of Reclamation County: Sacramento

Investigator: Gretchen Lebednik, Jelica White State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Oak woodland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W19 TR1 Pit B

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W19 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Quercus wislizenii*	T	NL	9.		
2. *Toxicodendron diversilobum*	S	NL	10.		
3. *Mimulus auranticaus*	S	NL	11.		
4. *Aira caryophylla*	H	NL	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil _____ (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Above the OHWL for Folsom Reservoir

SOILS Plot ID: W19 TR1 Pit B

Map Unit Name
(Series and Phase) Andregg coarse sandy loam Drainage Class: well-drained
Field Observations
Taxonomy (Subgroup): Ultic Haploxeroll Confirm Mapped Type? Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:
No wetland vegetation, no pit dug

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes No

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 8/1/2006

Applicant/Owner: Bureau of Reclamation County: El Dorado

Investigator: Gretchen Lebednik, Coralie Dayde State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W20 TR1 Pit A

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W20 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Juncus balticus*	H	OBL	9.		
2. *Cynodon dactylon*	H	FAC	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: Plants are grazed

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: >16 (in.)

Depth to Saturated Soil >16 (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☒ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☒ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Below the OHWL for Folsom Reservoir

SOILS Plot ID: W20 TR1 Pit A

Map Unit Name
(Series and Phase) Auburn very rocky silt loam Drainage Class: well-drained
Field Observations
Taxonomy (Subgroup): Lithic Haploxerept Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
8		10YR 5/1	7.5YR 5/8	Bright, 80%	Silt, clay

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 8/1/2006

Applicant/Owner: Bureau of Reclamation County: El Dorado

Investigator: Gretchen Lebednik, Coralie Dayde State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W20 TR1 Pit B

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W20 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Cynodon dactylon*	H	FAC	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: >16 (in.)

Depth to Saturated Soil >16 (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Below the OHWL for Folsom Reservoir

SOILS Plot ID: W20 TR1 Pit B

Map Unit Name
(Series and Phase) Auburn very rocky silt loam Drainage Class: well-drained
Field Observations
Taxonomy (Subgroup): Lithic Haploxerept Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-3		10YR 4/3	5YR 5/8		
3-16		5YR 4/6			

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 8/1/2006

Applicant/Owner: Bureau of Reclamation County: El Dorado

Investigator: Gretchen Lebednik, Coralie Dayde State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: riparian

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W21 TR1 Pit A

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W21 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Xanthium strumarium*	H	FAC+	9.		
2. *Cynodon dactylon*	H	FAC	10.		
3. *Salix gooddingii*	T	OBL	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: >16 (in.)

Depth to Saturated Soil >16 (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Below the OHWL for Folsom Reservoir

SOILS Plot ID: W21 TR1 Pit A

Map Unit Name
(Series and Phase) Auburn very rocky silt loam Drainage Class: well-drained

Taxonomy (Subgroup): Lithic Haploxerept Field Observations
Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
8		10YR 4/1	5YR 5/8	abundant	Scattered cobble

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 8/1/2006

Applicant/Owner: Bureau of Reclamation County: El Dorado

Investigator: Gretchen Lebednik, Coralie Dayde State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W21 TR1 Pit B

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W21 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Xanthium strumarium*	H	FAC+	9.		
2. *Cynodon dactylon*	H	FAC	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: >14 (in.)

Depth to Saturated Soil >14 (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Below the OHWL for Folsom Reservoir

SOILS Plot ID: W21 TR1 Pit B

Map Unit Name
(Series and Phase) Auburn very rocky silt loam Drainage Class: well-drained
Field Observations
Taxonomy (Subgroup): Lithic Haploxerept Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
8		10YR 5/3	10YR 4/6		

Hydric Soil Indicators:

___ Histosol	___ Concretions
___ Histic Epipedon	___ High Organic Content in Surface Layer in Sandy Soils
___ Sulfidic Odor	___ Organic Streaking in Sandy Soils
___ Aquic Moisture Regime	___ Listed on Local Hydric Soils List
___ Reducing Conditions	___ Listed on National Hydric Soils List
___ Gleyed or Low-Chroma Colors	___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 8/1/2006

Applicant/Owner: Bureau of Reclamation County: Placer

Investigator: Gretchen Lebednik, Coralie Dayde State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: Seasonal wetland

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W22 TR1 Pit A

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W22 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Cynodon dactylon*	H	FAC	9.		
2. *Juncus* sp.	H	OBL to FAC	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: 16 (in.)

Depth to Saturated Soil 14 (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Below the OHWL for Folsom Reservoir

SOILS Plot ID: W22 TR1 Pit A

Map Unit Name
(Series and Phase) Andregg-rock outcrop complex Drainage Class: well-drained

Field Observations
Taxonomy (Subgroup): Ultic Haploxeroll Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
8-12		10YR 4/2	none		
12-16		10YR 4/2	7.5YR 4/3	infrequent	

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 8/1/2006

Applicant/Owner: Bureau of Reclamation County: Placer

Investigator: Gretchen Lebednik, Coralie Dayde State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: riparian

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W23 TR1 Pit B

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W23 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Salix gooddingii*	T	OBL	9.		
2. *Cynodon dactylon*	H	FAC	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: >12 (in.)

Depth to Saturated Soil >12 (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Below the OHWL for Folsom Reservoir

SOILS Plot ID: W23 TR1 Pit B

Map Unit Name
(Series and Phase) Andregg-rock outcrop complex Drainage Class: well-drained

Taxonomy (Subgroup): Ultic Haploxeroll Field Observations
Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-14		10YR 5/3	none		sandy

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE WETLANDS DELINEATION MANUAL)

Project/Site: Folsom Dam JFP Date: 8/1/2006

Applicant/Owner: Bureau of Reclamation County: El Dorado

Investigator: Gretchen Lebednik, Coralie Dayde State: California

Do Normal Circumstances exist on the site? ☒Yes ☐No Community ID: riparian

Is the site significantly disturbed (Atypical Situation)? ☐Yes ☒No Plot ID: W23 TR1 Pit A

Is the area a potential Problem Area? ☐Yes ☒No Transect ID: W23 TR1

(If needed, explain on reverse side.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Salix gooddingii*	T	OBL	9.		
2. *Cynodon dactylon*	H	FAC	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No Recorded Data Available

FIELD OBSERVATIONS:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: >16 (in.)

Depth to Saturated Soil >16 (in.)

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
☐ Inundated
☐ Saturated in upper 12 inches
☐ Water Marks
☒ Drift Lines
☐ Sediment Deposits
☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized root channels in upper 12 inches
☐ Water-stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in Remarks)

Remarks: Below the OHWL for Folsom Reservoir

SOILS Plot ID: W23 TR1 Pit A

Map Unit Name
(Series and Phase) Andregg-rock outcrop complex Drainage Class: well-drained
Field Observations
Taxonomy (Subgroup): Ultic Haploxeroll Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
8		7.5YR 6/6	none		sandy

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:
Boulders, rocks, cobble. Uniform color to 18 inches or more

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

Appendix D

CWA Section 404 (b)(1) Analysis

Appendix D
CWA 404 (b)(1) Analysis

1.1 Project Description

The proposed Folsom Dam Safety/Flood Damage Reduction (DS/FDR) actions reflect a cooperative effort by the U.S. Department of the Interior, Bureau of Reclamation (Reclamation) and the U.S. Army Corps of Engineers (Corps), along with the Corps non-federal sponsors, the State Reclamation Board (Reclamation Board)/Department of Water Resources (DWR) and the Sacramento Area Flood Control Agency (SAFCA). The alternatives address proposed measures for implementing Reclamation's dam safety and security obligations and the Corps' flood damage reduction structural modifications at Folsom Dam and appurtenant facilities (the Folsom Facility). These facilities impound waters of the American River forming Folsom Reservoir.

The improvements being considered for the Folsom Facility respond to varying degrees to certain objectives of each of the aforementioned agencies. Reclamation's Safety of Dams Program objectives focus on reducing the risk of failure under hydrologic (flood), seismic (earthquake), and static (seepage) loads. Folsom Dam has been designated as a National Critical Infrastructure Facility and any compromise of the facility could result in grave property damage and loss of life. Reclamation's Security Program objectives are to protect public safety by securing Folsom Dam and its appurtenant structures and other Reclamation facilities, including the Folsom power plant, from attack or damage. The Corps' flood damage reduction objective is to improve the annual recurrence level of flood protection provided to the lower American River corridor. Similarly, SAFCA and DWR seek to improve the level of flood protection for the Sacramento region.

The proposed action includes the modifications to several components of the Folsom Facility. Figure 2-3 in the Folsom DS/FDR EIS/EIR shows the potential borrow, staging, and construction areas of the proposed action.

Main Concrete Dam

- Dam – reinforcement of existing parapet wall
- Post-tensioned tendons, shear key elements, and/or toe blocks
- Foundation drain enhancements
- Replace 3 emergency gates
- Modify/replace existing spillway bridge
- Gate and pier reinforcement
- Extend the Stilling Basin 50-75 ft

Auxiliary Spillway
- Joint (PMF/Flood control) fully-lined auxiliary spillway (referred to as the JFP spillway)
- 6 submerged tainter gates

Left and Right Wing Dams
- Crest protection and filters
- 3.5-ft parapet concrete wall

Mormon Island Auxiliary Dam (MIAD)
- 3.5-ft parapet concrete wall
- Toe drains
- Full-height filters
- Jet grouting downstream foundation
- Downstream overlay

Dikes 1, 2, 3, 7, and 8
- 3.5-ft parapet concrete wall

Dikes 4, 5 and 6
- 3.5-ft parapet concrete wall
- Toe drains
- Full-height filters
- Crest protection

Additional Actions
- Flood easements
- New embankments

Potential Borrow Sites
- Auxiliary Spillway
- Beal's Point
- MIAD D1 & D2

Material Processing and Concrete Batch Plants
- Main Dam - Concrete
- Folsom Point - Processing
- Beal's Point - Processing
- MIAD - Jet Grout Plant

Potential Disposal Sites
- Dike 7 (within reservoir)
- Folsom Point (within reservoir)
- MIAD (upland)
- MIAD D1 & D2 (upland)

- Beal's Point (within reservoir

Other Project Features
- Utility relocations
- Road relocations
- Haul road construction
- Underwater blasting and dredging

1.1.1 Location

The Folsom Facility is located approximately 23 miles northeast of Sacramento, near the City of Folsom, in the State of California.

1.1.2 General Description

There are 12 retention facilities (4 dams and 8 dikes) that make up the Folsom Facility. These retention structures impound the waters of the North and South Forks of the American River forming Folsom Reservoir. The Folsom Facility is a multi-purpose facility operated by law to provide flood control, irrigation water supply, municipal and industrial (M&I) water supply, and hydropower generation benefits. Additional purposes with notable associated benefits include recreation and maintenance of water quality for fish and wildlife.

Folsom Reservoir has a normal full pool storage capacity of 975,000 acre-feet with a minimum seasonally designated flood control storage space of 400,000 acre-feet. The reservoir provides flood damage reduction for the Sacramento area; water supply for irrigation, domestic, municipal, and industrial uses; and hydropower. The reservoir also provides extensive water-related recreational opportunities, water quality control in the Sacramento-San Joaquin Delta; and maintenance of flows stipulated to balance anadromous and resident fisheries, wildlife, and recreational considerations in and along the lower American River.

Modifying the dams, dikes, spillway, and stilling basin would reduce hydrologic risk of overtopping-related failure of any impoundment structure during a probably maximum flood (PMF) event, reduce the risk of structural failure of any impoundment structure during a potential seismic (earthquake) event, reduce the risk of structural failure of any impoundment structure during a potential static (seepage) event, and improve the flood management capacity of the facility above the 100-year recurrence level.

1.1.3 Background

In February 1986, major storms in northern California caused record floodflows in the American River basin. Outflows from Folsom Reservoir, together with high flows in the Sacramento River, caused water levels to rise above the design freeboard, or safety margin, of levees protecting the Sacramento area. The effects of the 1986 storms raised concerns over the adequacy of the existing flood control system, which led to a series of

investigations of the need to provide additional flood damage reduction to the Sacramento area.

In 1991, the Corps, Reclamation Board, and SAFCA completed the initial feasibility study for the main stem of the American River and the Natomas basin. Subsequent to completing the feasibility report, Congress provided guidance relating to the American River study in Section 9159 of the Department of Defense Appropriations Act for fiscal year 1993. This act authorized construction of much of the work identified in the Natomas area as described in the feasibility report. It also directed that additional studies be conducted to identify a project for increased flood damage reduction along the American River.

Section 566 of WRDA of 1999 (P.L. 106-53) directed the Corps to complete a study for increasing surcharge flood control storage space at the Folsom Dam and Reservoir, with the assumption that there would be no increase in water supply storage (Corps 2002). It also required the Corps to conduct a study of levees on the American and Sacramento Rivers to increase potential flood damage reduction through levee modification.

As part of their Safety of Dams program, Reclamation completed a Comprehensive Facility Review (CFR) and analysis of the Folsom Facility in 2000. Several hydrologic, seismic and static failure modes were identified during the review. Hydrologic issues at the Folsom Facility include the potential for a major flood to induce overtopping of the main dam, dikes, and MIAD, which could lead to failure of one or more of the structures. Seismic, or earthquake issues at the Folsom Facility include the instability of the main concrete dam because of sliding along upper concrete lift lines, sliding along the contact with the foundation at the base of the dam, instability at the concrete embankment interfaces, and failure of the spillway gates and piers. The instability of the foundation of MIAD is also a seismic concern because the foundation has been constructed on mine and dredge tailings and has the potential to liquefy during seismic activity. Static issues, which are those that occur during normal daily operations, include potential seepage and piping of the wing dams and dikes. The Reclamation Safety of Dams Corrective Action Study Draft Scoping Report, October 2005, provided an overview of the various hydrologic, seismic, and static failure modes identified at the Folsom Facility.

Results of Reclamation's CFR have determined that risks associated with the hydrologic, seismic, and static failure modes are sufficiently high to warrant expedited action. The greatest concern at the Folsom Facility is the potential for overtopping of the dam. Although the probability of dam failure is low, the consequences of failure are extremely high because of the large downstream population and the volume of water that would be released.

Reclamation began a corrective action study (CAS) in 2004 to develop corrective action alternatives to address all dam safety issues identified in the CFR and the concerns previously identified at MIAD. During development of the CAS, Reclamation worked with the Corps Folsom Dam Modification Project and Dam Raise Project to share information and develop actions to reduce hydrologic risk.

In response to the Energy and Water Development Act of 2006, Reclamation and the Corps have been working together to develop alternatives to address the issues at the Folsom Facility, while meeting each agency's objectives. These agencies determined that the proposed project would meet Reclamation's objectives to safely pass the probable maximum flood (PMF) and reduce hydrologic, static, and seismic issues, would meet the Corps objective to provide a minimum of 200-year flood protection, and would be technically feasible and constructible.

1.1.4 General Description and Quantity of Dredged or Fill Material

General Characteristics of Material

Grading and construction of the access roads, staging areas, parking facilities, and associated infrastructure have the potential to increase stormwater runoff, transport sediment and other materials into the reservoir. In addition, in order to construct work platforms near several of the Folsom Facilities, fill derived from granitic material will be placed within the reservoir high water level at Folsom Point, near Dike 7, Observation Point parking lot, and at Beal's Point. Construction work to modify several of the Folsom dikes and wing dams will also place fill at four seasonal wetlands (4.3 acres) outside of Folsom Reservoir. A delineation of jurisdictional waters in the study area has been done and is included in the *Draft Fish and Wildlife Coordination Act Report for the Folsom Dam Safety and Flood Damage Reduction Project* (USFWS 2006). The potentially affected swale and isolated wetlands do not support year round water flow and are only wet during significant rain or flood events.

In addition, the excavation for the approach channel for the proposed Auxiliary Spillway would include involve 702,463 cubic yards by dragline or dozer, 101,841 cubic yards by drilling and blasting above the water, and 286,946 cubic yards by drilling and blasting underwater.

Source of Material

Fill materials would come from an existing on-site substrate excavated as part of construction of the new Auxiliary Spillway and borrow development at Beal's Point. Fill materials would be of granitic rock origin.

1.1.5 Description of the Proposed Discharge Site(s)

Location (map)

The location of the potential within reservoir discharge sites would be the area directly downstream of Dike 7, at Folsom Point, the Observation Point parking lot, and at south Beal's Point. Construction on the upland sides of the reservoir at Dikes 4, 5, 6, the wing dams, and at MIAD has the potential for removal or filling of jurisdictional wetlands. These include six isolated seasonal wetlands, and six small seasonally ponded area.

Excavation would occur at several borrow sites around the Folsom Reservoir, as shown in Figure 2-3 in the Folsom DS/FDR EIS/EIR

Size

Within the project area, there would be adverse effects to up to 4.29 acres of seasonal wetlands and 40.99 acres of willow/cottonwood riparian that would be graded and or filled.

Type of Site

The fill needed for the staging area, dams, and dikes would take place in unconfined areas and open water areas.

Type(s) of Habitat

Generally, the area is grassland and oak woodland habitat, with some small areas of chaparral. There are a few scattered willows and cottonwoods in the area, mostly along the shoreline of the reservoir. There are scattered elderberry shrubs throughout the study area along the downstream portions of the facility.

Timing and Duration of Discharge

The project would be constructed in stages, beginning in with development of the Folsom Point staging area and excavation and construction of the auxiliary spillway in 2007 and continuing with construction at the LWD and RWD, MIAD, and Dikes 4, 5, and 6, ending with the completion of spillway construction and seismic upgrades to the main dam in 2014.

1.1.7 Description of Disposal Method

All of the fill work would be done with dozers, rollers, cement trucks, and draglines. Excavation would be done with dozers, draglines, and drilling and blasting.

2.1 Factual Determinations (Section 230.11)

2.1.1 Physical Substrate Determinations

2.1.1.1 Substrate Elevation and Slope

Elevation of staging areas, borrow sites, seasonal wetlands, and slopes are extend up to 480 feet above mean sea level and have slopes between 0 and 45 percent.

2.1.1.2 Sediment Type

Soils of the staging areas, borrow sites, and wetlands are mapped as Andregg, Argonaut, Auburn, Inks, Xerolls, and Xerorthents. Large areas of the project area have been graded and altered during the construction of Folsom Dam and its supporting infrastructure. The area directly downstream of the dam is composed of granite bedrock and boulders. The composition of fill proposed for placement would primarily be from excavated and processed granitic material.

2.1.1.3 Dredged/ Fill Material Movement

Dredge material excavated for construction of the auxiliary spillway will be moved outside of the reservoir and either contained within the MIAD overlay or placed at a permanent disposal site. The fill material needed for the staging areas, roads, dike, and auxiliary spillway construction will be stabilized and is not expected to move either during construction or after construction is completed. Fill material would be compacted and graded as appropriate, to prevent erosion. Fill material for the staging areas would be composed of excavated and process granitic rock. Fill material placed within the reservoir would consist of processed granite ranging size from cobble to pebble. Approximately 750,000 cubic yards of 2-6 inch diameter gravel and cobble could be placed within the reservoir.

2.1.1.4 Physical Effects on Benthos

Excavation at borrow sites and construction of roads and staging areas within the reservoir would occur at sites that are not inundated or that have been temporarily dewatered. Benthos would not be affected in the intermittently inundated areas. Benthos in the areas that are dewatered would be temporarily eliminated due to grading or excavation.

Other fill associated with the construction would placed in areas that receive water only in storm or flood events or would be placed on the exterior faces of the dikes and dams. Some areas proposed for fill exhibit wetlands characteristics. It is expected that the benthos of the wetland areas would be completely eliminated by the fill activity. Some wetland areas will be re-established. Benthos in these area are expected to re-colonize the existing surface area when inundated. Gravels and cobbles placed in the reservoir would form or contribute to new invertebrate habitat and fish spawning areas resulting in a net benefit.

2.1.1.5 Other Effects

Dewatering and jet grouting at MIAD would impact wetlands downstream of this facility. Monitoring of the wetlands is proposed to preclude this affect.

2.1.2 Actions Taken to Minimize Impacts

Fill material would only be placed where it is needed for road, staging area, dike, and dam modification. Fill material will be placed primarily when the reservoir water elevation is low and the area temporarily dry. During construction, disturbance outside of the project area would be kept to a minimum. Additionally, the following best management practices and mitigation measures from the draft EIS/EIR are included:

HWQ-1: An NPDES permit will be obtained prior to construction activities, commencing by filing a Notice of Intent (NOI) with the CVRWQCB and preparing a SWPPP. As required under the General Permit, the SWPPP will identify implementation measures necessary to mitigate potential water quality degradation as a result of construction. These measures will include BMPs and other standard pollution prevention actions such as erosion and sediment control measures, proper control of non-stormwater discharges,

and hazardous spill prevention and response. The SWPPP will also include requirements for BMP inspections, monitoring, and maintenance.

The NOI indicates the intent to comply with the General Permit which outlines conditions to minimize sediment and pollutant loading.

The following items are examples of BMPs that will be implemented during construction to avoid causing water quality degradation:

- Erosion control BMPs such as use of mulches or hydroseeding to prevent detachment of soil following guidance presented in the California BMP Handbooks – Construction (CASQA 2003). A detailed site map will be included in the SWPPP outlining specific areas where soil disturbance may occur, and drainage patterns associated with excavation and grading activities. In addition, the SWPPP will provide plans and details for the BMPs to be implemented prior, during and after construction to prevent erosion of exposed soils and to treat sediments before they are transported offsite.

- Sediment control BMPs such as silt fencing or detention basins that trap soil particles.

- Construction staging areas designed so that stormwater runoff during construction will be collected and treated in a BMP such as a detention basin.

- Management of hazardous material and wastes to prevent spills.

- Vehicle and equipment fueling BMPs so these activities occur only in designated staging areas with appropriate spill controls.

- Maintenance checks of equipment and vehicles to prevent spills or leaks of liquids of any kind.

As described in Chapter 2, specific staging areas for construction-related activities will be located near the Main Concrete Dam, Granite Bay, Beal's Point, Folsom Point, and MIAD. Haul roads will be constructed to connect Beal's Point with Granite Bay, and the LWD with MIAD. Only designated areas and roads will be used during construction processes to minimize water quality impacts.

HWQ-2: Measures to control on-site spills will be included in the SWPPP. In addition to the spill prevention and control BMPs presented above, the SWPPP will contain a visual monitoring program and a chemical monitoring program for pollutants that are non-visible to be implemented if there is a failure of BMPs. Proper storage and handling of materials and equipment servicing will only occur in designated areas. Should a spill occur, appropriate steps will be taken to inform local regulatory agencies as well as implementation of a spill response program as outlined in the SWPPP.

HWQ-3: Permits prepared by the responsible Federal agency will be obtained and abided by as stated in Section 401 and Section 404 of the CWA regarding dredging or filling of

waters of the United States, and activities involving discharging into those waters, which include wetlands, respectively. Construction activities related to temporary or permanent alteration of any water body within the construction area will be subject to regulation pursuant to these permits. Compliance under these permit provisions will serve to minimize construction activity impacts on water quality.

HWQ-4: Prior to implementing the full jet grouting action, Reclamation will perform jet grouting tests at MIAD including the monitoring for any grout leakages as well as the testing of groundwater and surface water levels and quality. If Reclamation determines that leakages are expected to occur and could cause adverse water quality effects, they will construct a cutoff wall before they jet grout the foundation at MIAD that will eliminate the migration of the grout, metals released from sediments, and pH12 water impacts to surrounding waters.

HWQ-5: Reclamation will monitor surface and groundwater levels and water quality prior to, during, and after jet grouting or excavation and replacement of MIAD.

- If any well or wetlands within 200 ft. of jet grout construction are found to have an elevated pH, then construction will cease until the pH returns to normal (as determined by pre-construction water quality monitoring).

- If the pH does not return to normal within 30 minutes, then a Reclamation biologist or hazardous materials specialist will be notified.

HWQ-6: If jet grout daylights more than 50 ft. from the point of construction, then work will cease until it can be determined that the grout will remain localized.

HWQ-7: During jet grout injection, all wetlands that could be impacted by construction will be visually inspected for the presence of grout every 15 to 30 minutes.

HWQ-8: All temporary jet grout solidification areas will be lined with a material that does not allow the migration of any construction-related materials.

HWQ-9: Guidance will be obtained from the CVRWQCB for testing earthen materials before constructing work area platforms within or adjacent to the reservoir to ensure any potentially associated pollutants will not be introduced into the reservoir that would violate water quality standards or substantially degrade existing water quality. Fill material will be placed in the reservoir during periods of lower water elevation, when possible. Best management practices will be adhered to in order to minimize water quality impacts during the placement of fill in the reservoir.

HWQ-10: Reclamation will monitor groundwater and surface water levels in wetlands downstream of MIAD and within the Mormon Island Wetland Preserve during dewatering of the MIAD foundation for excavation and replacement. If water levels decrease because of dewatering, the water obtained from dewatering will be tested and treated to meet surface water standards prior to being pumped back into the wetlands.

HWQ-11: The Corps will obtain a dewatering permit from CVRWQCB and will implement applicable water quality monitoring during dewatering of the existing Stilling Basin.

HWQ-12: Mitigation measures to minimize water quality impacts due to construction within and along the reservoir shoreline will be developed in consultation with CVRWQCB staff. These measures may include placement of a silt curtain surrounding the construction zone or construction of coffer dams. If appropriate, routine water samples will be collected at the start and completion of each dredging and/or blasting period.

HWQ-13: During the process of dredging material to construct the approach channel for the Auxiliary Spillway, sediment containing mercury will be controlled using a variety of methods, including, but not limited to, silt curtains, silt fences, as well as other BMPs and construction methods approved by the CVRWQCB. Dredged material will be placed on the downstream side of the reservoir in a contained area for drying and processing. The dredged material will then be contained either in the MIAD overlay or transported to a permanent disposal site outside of the reservoir.

HWQ-14: A water quality monitoring plan will be developed for review by the CVRWQCB prior to any in reservoir construction work. The plan will address sampling requirements during dredging, blasting, excavation, and placement of fill within the reservoir. If turbidity readings exceed action level values established by the CVRWQCB, corrective actions will be implemented in accordance with the plan.

2.1.2 Water Circulation, Fluctuation, and Salinity Determinations

2.1.2.1 Water

Soil erosion associated with excavating material and re-grading may transport sediment into local tributaries or directly into the reservoir, thus affecting water quality. Construction of the project would result in the excavation of 3.5 million cubic yards of material to construct the auxiliary spillway. Similar activities would for other excavation activities, including the construction of earthen dike and new embankments near Granite Bay and the eastern shoreline. In addition, excavation activities would occur at either or both the D1 and D2 sites to develop borrow sites for use in constructing the overlay for MIAD. Water quality impacts could occur from haul road construction and use, storage and handling of construction materials, and operation and maintenance of equipment. Potential water quality impacts are presented in Section 3.1 of the Folsom DS/FDR EIS/EIR. Compliance with all applicable regulations and permits, as well as Mitigation Measures in Section 3.1.4 would reduce or eliminate any potential water quality impacts.

Salinity

The fill and grading occurring in the isolated wetlands are not in areas of permanent water. When they receive water, it is from rain or flood events. All waters affected are freshwater and therefore, filling these areas would not adversely affect salinity.

Water Chemistry
Sediment transport into local tributaries, directly into the reservoir, or into the stilling basin area could adversely affect water chemistry at these sites. Mitigation measures described in Section II.a.6 would also minimize impacts to water chemistry.

Clarity
Sediment transport into local tributaries, directly into the reservoir, or into the stilling basin area could adversely affect water clarity at these sites. Mitigation measures described in Section II.a.6 would also minimize impacts to water clarity.

Should filling occur in areas of permanent waters, the agencies would comply with all requirements of the CVRWQCB 401 certification.

Color
Sediment transport into local tributaries, directly into the reservoir, or into the stilling basin area could adversely affect water color at these sites. Mitigation measures described in Section II.a.6 would also minimize impacts to water color.

Odor
The proposed project is not expected to affect odor.

Taste
The proposed project is not expected to affect taste.

Dissolved Gas Level
Sediment transport into local tributaries or directly into the reservoir could adversely affect dissolved gas levels at these sites. Mitigation measures described in Section II.a.6 would also minimize impacts to dissolved gas levels.

Should filling occur in areas of permanent waters, the agencies would comply with all requirements of the CVRWQCB 401 certification.

Nutrients
None of the proposed project components would adversely affect nutrients in the water.

Eutrophication
No nutrients are expected to be added to the reservoir to increase eutrophication potential

Others as Appropriate
The proposed project is not expected to affect other water characteristics.

2.1.2.2 Current Patterns and Circulation, Current Flow and Water Circulation

Current Patterns and Flow
The proposed fill areas would not affect general current and flow patterns

Velocity
The fill within the reservoir is not expected to change flow velocities of streams and storm channels.

Stratification
The proposed project is not expected to significantly affect stratification.

Hydrologic Regime
The hydrologic regime of the stormwater runoff is not expected to change with the proposed project.

2.1.2.3 Normal Water Level Fluctuations

Fill within the reservoir will not change managed water level fluctuations per the Folsom Flood Control operations diagrams..

2.1.2.4 Salinity Gradients

Because the fill areas receive freshwater stormwater runoff, salinity gradients would not be affected.

2.1.2.5 Actions That Will Be Taken to Minimize Impacts

Effects to pattern or flow of stormwater runoff are not expected to be significant. Therefore, no additional minimization measures are needed beyond those defined in Section II.e.4.

2.1.3 Suspended Particulate/ Turbidity Determinations

Soil erosion associated with excavating material and re-grading may transport sediment into local tributaries or directly into the reservoir, thus affecting water quality.

2.1.3.1 Expected Changes in Suspended Particulates and Turbidity Levels in the Vicinity of Excavation and Disposal Sites

Soil erosion associated with excavating material and re-grading may transport sediment into local tributaries or directly into the reservoir, thus adversely affecting turbidity levels and levels of suspended particulates. Effects on suspended particulates and turbidity levels would be short-term and would only last for the duration of the construction period. Mitigation measures described in Section II.a.6 would also minimize impacts to levels of suspended particulates and to turbidity levels. Water quality and water levels would continue to be monitored after the project to ensure no adverse effects would occur.

Because the fill occurring in isolated wetlands is not in areas of permanent water, there would be no changes in suspended particulates and turbidity in these areas. There would not be significant long-term changes in suspended particulates and turbidity. Drainage channels downstream from the Dike 7, Folsom Point, and south Beal's Point that are filled would be replaced by other drainage structures. There would not be significant long-term changes in suspended particulates and turbidity. Fill occurring in the area

downstream of the stilling basin would be solid or of substrate that is subject to increasing suspended particulates and turbidity.

2.1.3.2 Effects (degree and duration) on Chemical and Physical Properties of the Water Column)

Light Penetration

Soil erosion associated with excavating material and re-grading may transport sediment into local tributaries or directly into the reservoir, thus adversely affecting light penetration. Mitigation measures described in Section II.a.6 would also minimize impacts to light penetration.

Because the fill areas are not in areas of permanent water, or would be replaced by other drainage structures, or would occur as a solid of attached to the substrate or 2-6 inch diameter gravel/cobbles, there would not be adverse effects to light penetration.

Dissolved Oxygen

Soil erosion associated with excavating material and re-grading may transport sediment into local tributaries or directly into the reservoir, thus adversely affecting dissolved oxygen. Mitigation measures described in Section II.a.6 would also minimize impacts to dissolved oxygen.

Toxic Metals and Organics

The sediments in Folsom Reservoir may contain elemental mercury and metals from historic mining or naturally occurring within the bedrock of the American River drainage. Mercury is toxic to both aquatic life and human health.

Construction of the auxiliary spillway could lead to the mobilization of sediment into the water column or released into the American River downstream. Reclamation completed water quality sampling to determine if this sediment would be a hazard to downstream aquatic life if allowed to flow downstream. Results of the water quality investigation are presented in Appendix M. In 2006, Reclamation sampled a total of 18 sites and none of the samples exceeded the threshold for mercury of 0.2mg/kg. Additionally, of all the samples analyzed for metals, no results met or exceeded any of the sediment standards and as a result would be suitable for unconfined aquatic disposal. With the implementation of appropriate mitigation measures, the proposed action is not expected to have any significant adverse effects related to toxic metals or organics.

Measures described in the SWPPP, prepared to RWQCB guidelines, and draft EIS/EIR would minimize the potential for contaminants to be introduced into the fill areas. Sediment mitigation measures would be implemented as suggested in Section 3.1.4 of the Folsom DS/FDR EIS/EIR to prevent the potential for the mobilization of mercury. Additional water quality testing would be performed as needed.

Pathogens

The proposed project would not introduce pathogens to the aquatic community.

Esthetics (of the Water Column)
Soil erosion associated with excavating material and re-grading may transport sediment into local tributaries or directly into the reservoir, thus adversely affecting the esthetics of the water column. These impacts would only last for the duration of the construction period and would therefore be temporary. Mitigation measures described in Section II.a.6 would also minimize impacts to esthetics.

The fill areas are not in areas of permanent water and would not occur in dewatered areas and therefore, esthetics of the water column would not be adversely affected.

Others as Appropriate
Leakages from jet grouting could occur and could possibly cause adverse water quality effects in the wetlands downstream of MIAD. However, if it is determined that such leakage is having an adverse effect, a cutoff wall would be constructed before jet grouting the foundation at MIAD to eliminate the migration of the grout. Water quality and levels will be monitored before, during, and after jet grouting.

There would be no other significant adverse effects to the chemical and physical properties of the water column.

2.1.3.3 Effects on Biota

Primary Production, Photosynthesis
The project would temporarily affect primary production and photosynthesis in those areas filled. However, the effect would be temporary and less than significant.

Suspension Filter Feeders
Soil erosion associated with excavating material and re-grading may transport sediment into local tributaries or directly into the reservoir, thus adversely affecting the suspension filter feeders. Mitigation measures described in Section II.a.6 would also minimize impacts to suspension filter feeders.

The project would temporarily affect suspension and filter feeders in those areas filled. However, the effect would be temporary and less than significant for the area downstream of the stilling basin. The effect would be a permanent adverse effect on the filled or graded wetlands, but would be mitigated off-site to a less than significant level.

Sight Feeders
Soil erosion associated with excavating material and re-grading may transport sediment into local tributaries or directly into the reservoir, thus adversely affecting the sight feeders. Mitigation measures described in Section II.a.6 would also minimize impacts to sight feeders.

The project would temporarily affect sight feeders in those areas filled. However, the effect would be temporary and less than significant for the area downstream of the stilling basin. The effect would be a permanent adverse effect in the direct area to be filled in the riffle/pool complex downstream of the stilling basin, but would be mitigated off-site to a

less than significant level. The effect would be a temporary or permanent adverse effect in seasonally ponded areas, but would be mitigated off-site to a less than significant level.

2.1.3.4 Actions Taken to Minimize Impacts

Mitigation measures described in Section II.a.6 would also minimize water quality effects on aquatic biota.

Effects to the aquatic biota would be temporary and not significant in the area downstream of the stilling basin. Therefore, no additional measures to minimize effects are needed for fill occurring there. Off-site mitigation would be completed for the wetlands and open water areas that are permanently filled.

If vernal pool fairy shrimp or vernal pool tadpole shrimp are found to be present during surveys being conducted 2006/2007, then avoidance and minimization measures are based on an existing USFWS Programmatic Consultation and Biological Opinion (BO) are proposed, subject to Section 7 consultation and USFWS approval.

2.1.4 Contaminant Determinations

The proposed project would not add contaminants to any nearby body of water. Best management practices to reduce the potential of accidental spills during construction are included in the draft EIS/EIR. The fill material for the sites would not be contaminated and would be tested for contaminants prior to placement. If jet grouting were determined to affect water quality, mitigation measures would be employed to minimize that effect.

2.1.5 Aquatic Ecosystem and Organism Determinations

2.1.5.1 Effects on Plankton

The proposed action would have short-term construction related effects to plankton but with the implementation of mitigation measures described in II.a.6, effects to plankton would be temporary and not significant. No additional measures to minimize effects are needed for fill occurring in the area downstream of the stilling basin. Off-site mitigation would be performed for the wetlands and open water areas that are permanently filled.

2.1.5.2 Effects on Benthos

The proposed action would have short-term construction related effects on benthos, but with the implementation of mitigation measures described in II.a.6, effects to the benthos would be temporary and not significant. No additional measures to minimize effects are needed for fill occurring in the area downstream of the stilling basin. Off-site mitigation would be performed for the wetlands and open waters that are permanently filled.

2.1.5.3 Effects on Nekton

The proposed action would have short-term construction related effects on nekton, but with the implementation of mitigation measures described in II.a.6, effects to the nekton would be temporary and not significant. No additional measures to minimize effects are

needed for fill occurring in the area downstream of the stilling basin. Off-site mitigation would be performed for the wetlands and open waters that are permanently filled.

2.1.5.4 Effects on Aquatic Food Web

The proposed action would have short-term construction related effects on the aquatic food web, but with the implementation of mitigation measures described in II.a.6, there would be no adverse effects to the aquatic food web. Additional fill at the dikes and MIAD would be placed on the outside faces of these facilities. The fill areas carry water only in rain and flood events except for filling action occurring downstream of the stilling basin. Conditions in the new drainage areas and overflow channel are expected to be similar to pre-project conditions. Due to the very intermittent nature of water in the fill areas, habitat for these aquatic resources is extremely marginal and any unexpected effects would not be significant.

2.1.5.5 Effects on Special Aquatic Sites

Sanctuaries and Refuges

There are no Sanctuaries or Refuges within the footprint of the Folsom Facilities. The Mormon Island Wetland Preserve is located downstream of MIAD. Mitigation measures are proposed to preclude adverse effects to the preserve.

Wetlands

Within the project area, there would be adverse effects to up to 4.29 acres of seasonal wetlands and 40.99 acres of willow/cottonwood riparian that would be graded and or filled.

Mud Flats

There would be no adverse effects to mud flats with the proposed project.

Vegetated Shallows

There would be no adverse effects to vegetated shallows with the proposed project.

Coral Reefs

There would be no adverse effects to coral reefs with the proposed project.

Riffle and Pool Complexes

There are no riffles are pools within the footprints of the Folsom Facilities.

Threatened and Endangered Species

There would be adverse effects to 135 elderberry shrubs that provide habitat for the valley elderberry longhorn beetle. There could be adverse effects to vernal pool fairy shrimp or vernal pool tadpole shrimp if these species are present in the project area. Mitigation measures proposed to minimize these effects include:

- Include a copy of biological opinions in contractual documents and hold the prime contractor responsible for implementing obligations of the biological opinion that pertain to various contracts.

- Implement mitigation based on the U.S. Fish and Wildlife Service's Conservation Guidelines for the Valley Elderberry Longhorn Beetle dated July 9, 1999, for actions related to the proposed project. Establish elderberry and associated native plant seedlings between February 1, 2007 and February 15, 2008. Ensure that the elderberry and associated native plant seedlings are established on no less than 11.0 acres at a site approved by the U.S. Fish and Wildlife Service. This mitigation would reduce the significant effect on the elderberry shrubs to a less than significant level.

- If vernal pool fairy shrimp or vernal pool tadpole shrimp are found to be present during surveys being conducted 2006/2007, then avoidance and minimization measures are based on an existing USFWS Programmatic Consultation and Biological Opinion (BO) are proposed, subject to Section 7 consultation and USFWS approval.

Other Wildlife

Wildlife effects associated with the construction are expected to be temporary. Generally, wildlife species that use the areas around project area are mobile species that would leave the area during construction and return when construction is completed. Therefore, the proposed project would not have any significant adverse effects to wildlife over what was described in the draft EIS/EIR.

2.1.5.6 Actions to Minimize Impacts

The adverse effects to elderberry shrubs have already been documented and consultation with FWS is being conducted. There would be no additional significant adverse effects to wildlife due to the construction. Therefore, there would be no additional minimization measures needed.

If federally listed vernal pool fairy shrimp or vernal pool tadpole shrimp are present in the project area, avoidance and minimization measures would be implemented, based on an existing USFWS Programmatic Consultation and Biological Opinion (BO) and subject to Section 7 consultation and USFWS approval.

Wetland and open water habitats would be compensated to an amount according to consultation with the U.S. Fish and Wildlife Service under the Fish and Wildlife Coordination Act.

2.1.6 Proposed Disposal Site Determinations

2.1.6.1 Mixing Zone Determination (consider factors in section 230.11(0(2))

Not applicable.

2.1.6.2 Determination of Compliance with Applicable Water Quality Standards

No water quality or effluent standards would be violated either during or after construction of the Auxiliary Spillway, dams, dikes, staging areas and borrow areas.

2.1.6.3 Potential Effects on Human Use Characteristics

The proposed project would not have any significant adverse effects to municipal and private water supply and commercial fisheries. Adverse effects to recreation, air quality, noise, transportation, and visual resources would occur for the duration of the construction period. Some visual resources would be permanently affected.

Folsom Lake State Recreational Area would be affected by the proposed action for the duration of the construction period. There would be no other national and historic monuments, parks, seashores, wilderness areas, research sites or similar preserves affected by the proposed action.

2.1.7 Determination of Cumulative Effects on the Aquatic Ecosystem

Project-related construction activities could potentially alter water quality by increasing the likelihood that runoff and debris enter receiving waters. When combined with construction of the New Folsom Bridge, Future Redundant Water Pipeline for Roseville, Folsom, and San Juan Water Districts, modifications to L.L. Anderson Dam. All work on L.L. Anderson Dam will be done as part of the FERC relicensing and is not part of the Folsom DS/FDR). Long-term Reoperation of Folsom Dam, the Sacramento Municipal Utility District Transmission Line Relocation, Folsom Dam Road Closure, and the Lower American River Common Features Project, there is a possibility that water quality would be affected. However, each project's associated SWPPPs, BMPs and pertinent permits would ensure that measures are implemented to avoid water quality degradation. This would result in effective mitigation of significant cumulative impacts.

The Folsom Bridge Project is expected to result in limited impacts to native vegetation, in part in areas also potentially affected by the project. Therefore, the cumulative effects of the Folsom Bridge Project and the Proposed Action would not be cumulatively considerable for fishery resources in general, or for vernal pool habitat and species. If additional water is impounded in an unusually high-precipitation year behind a raised dam, a zone along the reservoir shoreline would be temporarily flooded. Such an inundation is expected to be a rare event, affecting a narrow zone along the shore, and the impacts would not be cumulatively considerable.

The Folsom Bridge Project is expected to result in limited impacts to native vegetation, in part in areas also potentially affected by the Folsom DS/FDR action. These impacts include impacts to jurisdictional wetlands. The project provides mitigation to reduce these impacts to a less-than-significant level. The Sacramento Municipal Utility District Transmission Line Project will result in limited impacts to native vegetation, primarily in areas also potentially affected either by the Folsom Bridge Project or the Folsom DS/FDR action. Additional impacts to native vegetation in the Folsom DS/FDR area are not expected from this project. Potential alterations to stream flow due to modification of the spillway at French Meadows Reservoir would be attenuated in the long distance between L.L. Anderson Dam and the Folsom DS/FDR area and are not likely to affect vegetation in the Folsom DS/FDR area. Although work related to the Lower American River Common Features Project is on-going, it is close to completion and consists primarily of levee work outside the floodway. Therefore, the effects of these projects in

combination with the Folsom DS/FDR action would not be cumulatively considerable for vegetation in general, for riparian vegetation, or for wetland vegetation.

2.1.8 Determination of Secondary Effects on the Aquatic Ecosystem

The project would result in additional fill near Dike 7, at Folsom Point and at the Beal's Point recreational use area. If this fill is left in place and the parking or boat ramp areas are expanded, stormwater runoff from the expanded areas could result in secondary adverse effects to water quality. If construction of additional boat ramp areas is included in the project as mitigation for adverse effects on recreational use, then secondary adverse effects to water quality could also occur from stormwater runoff from those surfaces.

3.1 Findings of Compliance or Non-Compliance With the Restrictions on Discharge

3.1.1 Adaptation of the Section 404(b)(1) Guidelines to this Evaluation

No significant adaptations of the guidelines were made relative to this evaluation.

3.1.2 Evaluation of Availability of Practicable Alternatives to the Proposed Discharge Site Which Would Have Less Impact on the Aquatic Ecosystem

Fill placement within the reservoir has been minimized to the amounts and locations necessary to affectively construct the modifications to the Folsom Facilities. Upland locations have been identified for excess material. Impacts have been minimized through this approach.

3.1.3 Compliance with Applicable State Water Quality Standards and

3.1.4 Compliance with Applicable Toxic Effluent Standard or Prohibition Under Section 307 of the Clean Water Act

State water quality standards would not be violated. The proposed action would not violate the Toxic Effluent Standards of Section 307 of the Clean Water Act.

3.1.5 Compliance with Endangered Species Act (ESA) of 1973

Reclamation and the Corps have been participating in informal consultation with the United States Fish and Wildlife Service (USFWS). A Biological Assessment has been prepared for submittal to USFWS. A Draft Coordination Action Report has been prepared by the USFWS.

3.1.6 Compliance with Specified Protection Measures for Marine Sanctuaries Designated by the Marine Protection, Research, and Sanctuaries Act of 1972

Not applicable.

3.1.7 Evaluation of Extent of Degradation of the Waters of the United States

Significant Adverse Effects on Human Health and Welfare

The proposed action would not cause significant adverse effect on human health and welfare, including municipal and private water supplies, recreational fishing, and commercial fishing. Construction activities would affect benthic communities and plankton. There would be temporary adverse effects to fish, shellfish, wildlife or special aquatic sites. Due to limited permanent water at wetland sites outside of the reservoir, there would be minimal, if any adverse effects to aquatic diversity during construction. Additionally all of the fill areas would be replaced by similar habitat as part of mitigation. Temporary adverse effects to recreational use at Beal's Point and Folsom Point would occur during construction. The proposed action would not significantly affect economic values. Temporary effects to esthetics would occur during construction.

3.1.8 Appropriate and Practicable Steps Taken to Minimize Potential Adverse Impacts of Excavation and Discharge on the Aquatic Ecosystem

Appropriate and practicable steps to minimize potential adverse effects of excavation, discharge and fill on the aquatic ecosystem include: implementing a SWPPP, dewatering during construction any permanent waters in which fill would occur, placing fill material only where it is needed for the proposed project, and confining it to the smallest practicable area. The areas disturbed by construction would be returned as close as possible to pre-proposed action conditions where practicable.

On the basis of the guidelines, the proposed action is specified as complying with the inclusion of appropriate and practical conditions to minimize pollution or adverse effect on the aquatic ecosystem.

Appendix E
Air Quality Methodology and Assumptions

Appendix E
Air Quality Methodology and Assumptions

This appendix presents detailed emissions and dispersion calculation results tables for Alternatives 1 and 3. These tables provide typical calculation results for the different source categories included in the analysis. Additional material is available in the administrative record.

The air dispersion modeling tables in this appendix provide the unmitigated and mitigated concentration results for NO_2, PM_{10}, and $PM_{2.5}$ from Alternative 1 and 3 sources. The dispersion modeling output files will be available in the administrative record.

The emissions information includes the tables and data below in the following order:

Alternative 1 Data and Results

- Alternative 1 Unmitigated Emission Summaries by year for daily emissions and annual emissions
- Alternative 1 Mitigated Emission Summaries by year for daily emissions and annual emissions
- Alternative 1 Equipment Counts by Project Feature
- Offroad Construction Equipment Emission Factors (applicable to all alternatives)
- Onsite Construction Equipment NOx Unmitigated Emissions for Alternative 1
    - Alt 1 Auxiliary Spillway NOx Unmitigated Emissions
    - Alt 1 MIAD NOx Unmitigated Emissions
    - Alt 1 RWD NOx Unmitigated Emissions
- Onsite Construction Equipment PM_{10} Unmitigated Emissions for Alternative 1
    - Alt 1 Auxiliary Spillway PM_{10} Unmitigated Emissions
    - Alt 1 MIAD PM_{10} Unmitigated Emissions
    - Alt 1 RWD PM_{10} Unmitigated Emissions
- Onsite Construction Equipment CO Unmitigated Emissions for Alternative 1
- Onsite Construction Equipment ROG Unmitigated Emissions for Alternative 1
- Onsite Construction Equipment $PM_{2.5}$ Unmitigated Emissions for Alternative 1
- Onsite Fugitive Dust Emissions from URBEMIS for Alternative 1
- Concrete Batch Plant Emissions (applicable to all alternatives)
- Materials Crushing/Processing Emissions (applicable to all alternatives)
- Blasting Emissions (applicable to all alternatives)
- Onsite Construction Equipment NOx Mitigated Emissions for Alternative 1

Alternative 3 Data and Results

- Alternative 3 Unmitigated Emission Summaries by year for daily emissions and annual emissions
- Alternative 3 Mitigated Emission Summaries by year for daily emissions and annual emissions
- Alternative 3 Equipment Counts by Project Feature
- Onsite Construction Equipment NOx Unmitigated Emissions for Alternative 3

- Onsite Construction Equipment PM_{10} Unmitigated Emissions for Alternative 3
- Onsite Construction Equipment CO Unmitigated Emissions for Alternative 3
- Onsite Construction Equipment ROG Unmitigated Emissions for Alternative 3
- Onsite Construction Equipment $PM_{2.5}$ Unmitigated Emissions for Alternative 3
- Onsite Fugitive Dust Emissions from URBEMIS for Alternative 3

$PM_{2.5}$ Modeling Approach

NO_2-NO_x Ratio Graph

Alternative 1 Data and Results

Alternative 1 - Unmitigated Emissions Summary

Emissions of ROG (lbs/day)									
	2007	2008	2009	2010	2011	2012	2013	2014	PEAK
Construction Equipment	40.60	176.90	98.60	69.60	14.15	37.70	23.20	0.00	176.90
Onsite Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Batching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Subtotal	*40.60*	*176.90*	*98.60*	*69.60*	*14.15*	*37.70*	*23.20*	*0.00*	*176.90*
Offsite Haul Trucks	0.00	27.85	19.22	27.11	15.98	8.46	23.52	0.00	27.85
Worker Trips	0.69	1.89	2.96	2.26	0.80	0.80	0.53	0.00	2.96
Offsite Subtotal	*0.69*	*29.74*	*22.18*	*29.38*	*16.78*	*9.26*	*24.05*	*0.00*	*29.74*
Total	**41.29**	**206.64**	**120.78**	**98.98**	**30.93**	**46.96**	**47.25**	**0.00**	**206.64**
Emissions of CO (lbs/day)									
	2007	2008	2009	2010	2011	2012	2013	2014	PEAK
Construction Equipment	166.36	1624.04	1636.97	960.49	577.05	577.05	102.83	0.00	1636.97
Onsite Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Batching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Subtotal	*166.36*	*1624.04*	*1636.97*	*960.49*	*577.05*	*577.05*	*102.83*	*0.00*	*1636.97*
Offsite Haul Trucks	0.00	103.24	71.25	100.51	59.25	31.38	87.19	0.00	103.24
Worker Trips	23.63	64.54	100.90	77.27	27.27	27.27	18.18	0.00	100.90
Offsite Subtotal	*23.63*	*167.78*	*172.16*	*177.77*	*86.52*	*58.65*	*105.37*	*0.00*	*177.77*
Total	**190.00**	**1791.82**	**1809.13**	**1138.27**	**663.57**	**635.70**	**208.20**	**0.00**	**1809.13**
Emissions of NOx (lbs/day)									
	2007	2008	2009	2010	2011	2012	2013	2014	PEAK
Construction Equipment	167.25	1268.86	1155.87	688.95	471.45	471.45	92.29	0.00	1268.86
Onsite Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Batching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Subtotal	*167.25*	*1268.86*	*1155.87*	*688.95*	*471.45*	*471.45*	*92.29*	*0.00*	*1268.86*
Offsite Haul Trucks	0.00	459.23	316.95	447.07	263.53	139.58	387.82	0.00	459.23
Worker Trips	2.29	6.25	9.77	7.48	2.64	2.64	1.76	0.00	9.77
Offsite Subtotal	*2.29*	*465.48*	*326.72*	*454.55*	*266.17*	*142.22*	*389.58*	*0.00*	*465.48*
Total	**169.54**	**1734.33**	**1482.59**	**1143.50**	**737.62**	**613.67**	**481.87**	**0.00**	**1734.33**
Emissions of PM_{10} (lbs/day)									
	2007	2008	2009	2010	2011	2012	2013	2014	PEAK
Construction Equipment	5.50	37.76	32.19	19.33	14.22	14.22	2.93	0.00	37.76
Onsite Fugitive Dust	560.36	1738.90	2039.05	2038.37	802.34	381.58	721.20	0.00	2039.05
Concrete Batching	165.41	165.41	165.41	165.41	165.41	165.41	165.41	0.00	165.41
Crushing/Processing	27.22	27.22	27.22	27.22	27.22	27.22	27.22	0.00	27.22
Onsite Subtotal	*758.49*	*1969.28*	*2263.87*	*2250.33*	*1009.19*	*588.43*	*916.76*	*0.00*	*2263.87*
Offsite Haul Trucks	0.00	100.64	69.46	97.98	57.76	30.59	85.00	0.00	100.64
Worker Trips	3.88	10.61	16.59	12.70	4.48	4.48	2.99	0.00	16.59
Offsite Subtotal	*3.88*	*111.25*	*86.05*	*110.68*	*62.24*	*35.07*	*87.98*	*0.00*	*111.25*
Total	**762.38**	**2080.54**	**2349.92**	**2361.01**	**1071.43**	**623.50**	**1004.74**	**0.00**	**2361.01**
Emissions of $PM_{2.5}$ (lbs/day)									
	2007	2008	2009	2010	2011	2012	2013	2014	PEAK
Construction Equipment	4.92	34.43	29.56	17.71	12.88	12.88	2.64	0.00	34.43
Onsite Fugitive Dust	116.22	361.28	423.36	423.29	166.84	78.72	149.09	0.00	423.36
Concrete Batching	111.47	111.47	111.47	111.47	111.47	111.47	111.47	0.00	111.47
Crushing/Processing	2.33	2.33	2.33	2.33	2.33	2.33	2.33	0.00	2.33
Onsite Subtotal	*234.94*	*509.51*	*566.72*	*554.80*	*293.52*	*205.40*	*265.53*	*0.00*	*566.72*
Offsite Haul Trucks	0.00	26.35	18.19	25.65	15.12	8.01	22.25	0.00	26.35
Worker Trips	0.73	1.99	3.11	2.38	0.84	0.84	0.56	0.00	3.11
Offsite Subtotal	*0.73*	*28.34*	*21.29*	*28.03*	*15.96*	*8.85*	*22.81*	*0.00*	*28.34*
Total	**235.67**	**537.85**	**588.01**	**582.84**	**309.48**	**214.25**	**288.34**	**0.00**	**588.01**

Notes:
Concrete Batching and Materials Processing (Crushing) are assume to be controlled for permitting, controls are part of project design.
Concrete Batching and Materials Processing (Crushing) are assume to begin in 4th Quarter of 2007; one (1) Batch Plant and two (2) Processing Facilities assumed to operate during project construction.
Offsite Haul Trucks and Worker Trips includes paved road dust in PM10 and PM2.5 emission factors.

Alternative 1 - Unmitigated Emissions Summary

Emissions of ROG (tons/year)									
	2007	2008	2009	2010	2011	2012	2013	2014	Peak Yr
Construction Equipment	1.66	15.46	19.72	15.93	1.77	3.22	0.14	0.00	19.72
Onsite Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Batching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Subtotal	*1.66*	*15.46*	*19.72*	*15.93*	*1.77*	*3.22*	*0.14*	*0.00*	*19.72*
Offsite Haul Trucks	0.00	0.14	0.35	0.72	0.65	0.04	0.17	0.00	0.72
Worker Trips	0.08	0.25	0.32	0.24	1.47	0.06	0.10	0.00	1.47
Offsite Subtotal	*0.08*	*0.39*	*0.67*	*0.96*	*2.12*	*0.11*	*0.27*	*0.00*	*2.12*
Total	**1.75**	**15.85**	**20.39**	**16.89**	**3.89**	**3.33**	**0.40**	**0.00**	**20.39**
Emissions of CO (tons/year)									
	2007	2008	2009	2010	2011	2012	2013	2014	Peak Yr
Construction Equipment	6.82	190.90	280.95	234.01	72.13	51.64	0.62	0.00	280.95
Onsite Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Batching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Subtotal	*6.82*	*190.90*	*280.95*	*234.01*	*72.13*	*51.64*	*0.62*	*0.00*	*280.95*
Offsite Haul Trucks	0.00	0.52	1.30	2.68	2.41	0.16	0.63	0.00	2.68
Worker Trips	2.80	8.44	10.83	8.03	0.06	2.18	3.27	0.00	10.83
Offsite Subtotal	*2.80*	*8.96*	*12.12*	*10.70*	*2.47*	*2.35*	*3.90*	*0.00*	*12.12*
Total	**9.62**	**199.86**	**293.07**	**244.71**	**74.60**	**53.99**	**4.52**	**0.00**	**293.07**
Emissions of NOx (tons/year)									
	2007	2008	2009	2010	2011	2012	2013	2014	Peak Yr
Construction Equipment	6.86	137.77	203.05	169.47	58.93	41.73	0.55	0.00	203.05
Onsite Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Batching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Subtotal	*6.86*	*137.77*	*203.05*	*169.47*	*58.93*	*41.73*	*0.55*	*0.00*	*203.05*
Offsite Haul Trucks	0.00	2.33	5.77	11.91	10.74	0.73	2.80	0.00	11.91
Worker Trips	0.27	0.82	1.05	0.78	1.96	0.21	0.32	0.00	1.96
Offsite Subtotal	*0.27*	*3.15*	*6.82*	*12.69*	*12.70*	*0.94*	*3.12*	*0.00*	*12.70*
Total	**7.13**	**140.91**	**209.87**	**182.15**	**71.63**	**42.67**	**3.67**	**0.00**	**209.87**
Emissions of PM_{10} (tons/year)									
	2007	2008	2009	2010	2011	2012	2013	2014	Peak Yr
Construction Equipment	0.23	4.05	5.78	4.80	1.78	1.29	0.02	0.00	5.78
Onsite Fugitive Dust	22.53	139.53	204.80	190.97	96.89	45.81	35.83	0.00	204.80
Concrete Batching	5.46	21.83	21.83	21.83	21.83	21.83	21.83	0.00	21.83
Crushing/Processing	0.90	3.59	3.59	3.59	3.59	3.59	3.59	0.00	3.59
Onsite Subtotal	*29.11*	*169.01*	*236.00*	*221.20*	*124.09*	*72.52*	*61.27*	*0.00*	*236.00*
Offsite Haul Trucks	0.00	0.51	1.26	2.61	2.35	0.16	0.61	0.00	2.61
Worker Trips	0.46	1.39	1.78	1.32	0.00	0.36	0.54	0.00	1.78
Offsite Subtotal	*0.46*	*1.90*	*3.04*	*3.93*	*2.36*	*0.52*	*1.15*	*0.00*	*3.93*
Total	**29.57**	**170.91**	**239.04**	**225.13**	**126.45**	**73.04**	**62.43**	**0.00**	**239.04**
Emissions of $PM_{2.5}$ (tons/year)									
	2007	2008	2009	2010	2011	2012	2013	2014	Peak Yr
Construction Equipment	0.20	3.96	5.30	4.40	1.61	1.17	0.02	0.00	5.30
Onsite Fugitive Dust	4.67	29.01	42.56	39.69	20.15	9.52	7.43	0.00	42.56
Concrete Batching	3.68	14.71	14.71	14.71	14.71	14.71	14.71	0.00	14.71
Crushing/Processing	0.08	0.31	0.31	0.31	0.31	0.31	0.31	0.00	0.31
Onsite Subtotal	*8.63*	*47.99*	*62.88*	*59.11*	*36.78*	*25.71*	*22.47*	*0.00*	*62.88*
Offsite Haul Trucks	0.00	0.13	0.33	0.68	0.62	0.04	0.16	0.00	0.68
Worker Trips	0.09	0.26	0.33	0.25	0.32	0.07	0.10	0.00	0.33
Offsite Subtotal	*0.09*	*0.39*	*0.66*	*0.93*	*0.94*	*0.11*	*0.26*	*0.00*	*0.94*
Total	**8.71**	**48.38**	**63.54**	**60.04**	**37.72**	**25.82**	**22.73**	**0.00**	**63.54**

Notes:
Concrete Batching and Materials Processing (Crushing) are assume to be controlled for permitting, controls are part of project design.
Concrete Batching and Materials Processing (Crushing) are assume to begin in 4th Quarter of 2007; one (1) Batch Plant and two (2) Processing Facilities assumed to operate during project construction.
Offsite Haul Trucks and Worker Trips includes paved road dust in PM10 and PM2.5 emission factors.

Alternative 1 - Mitigated Emissions Summary

Emissions of ROG (lbs/day)									
	2007	2008	2009	2010	2011	2012	2013	2014	PEAK
Construction Equipment	40.60	176.90	98.60	69.60	14.15	37.70	23.20	0.00	176.90
Onsite Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Batching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Subtotal	*40.60*	*176.90*	*98.60*	*69.60*	*14.15*	*37.70*	*23.20*	*0.00*	*176.90*
Offsite Haul Trucks	0.00	27.85	19.22	27.11	15.98	8.46	23.52	0.00	27.85
Worker Trips	0.69	1.89	2.96	2.26	0.80	0.80	0.53	0.00	2.96
Offsite Subtotal	*0.69*	*29.74*	*22.18*	*29.38*	*16.78*	*9.26*	*24.05*	*0.00*	*29.74*
Total	**41.29**	**206.64**	**120.78**	**98.98**	**30.93**	**46.96**	**47.25**	**0.00**	**206.64**
Emissions of CO (lbs/day)									
	2007	2008	2009	2010	2011	2012	2013	2014	PEAK
Construction Equipment	166.36	1624.04	1636.97	960.49	577.05	577.05	102.83	0.00	1636.97
Onsite Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Batching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Subtotal	*166.36*	*1624.04*	*1636.97*	*960.49*	*577.05*	*577.05*	*102.83*	*0.00*	*1636.97*
Offsite Haul Trucks	0.00	103.24	71.25	100.51	59.25	31.38	87.19	0.00	103.24
Worker Trips	23.63	64.54	100.90	77.27	27.27	27.27	18.18	0.00	100.90
Offsite Subtotal	*23.63*	*167.78*	*172.16*	*177.77*	*86.52*	*58.65*	*105.37*	*0.00*	*177.77*
Total	**190.00**	**1791.82**	**1809.13**	**1138.27**	**663.57**	**635.70**	**208.20**	**0.00**	**1809.13**
Emissions of NOx (lbs/day)									
	2007	2008	2009	2010	2011	2012	2013	2014	PEAK
Construction Equipment	146.30	1042.60	929.70	556.16	389.67	389.67	78.83	0.00	1042.60
Onsite Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Batching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Subtotal	*146.30*	*1042.60*	*929.70*	*556.16*	*389.67*	*389.67*	*78.83*	*0.00*	*1042.60*
Offsite Haul Trucks	0.00	459.23	316.95	447.07	263.53	139.58	387.82	0.00	459.23
Worker Trips	2.29	6.25	9.77	7.48	2.64	2.64	1.76	0.00	9.77
Offsite Subtotal	*2.29*	*465.48*	*326.72*	*454.55*	*266.17*	*142.22*	*389.58*	*0.00*	*465.48*
Total	**148.59**	**1508.07**	**1256.42**	**1010.71**	**655.84**	**531.88**	**468.42**	**0.00**	**1508.07**
Emissions of PM_{10} (lbs/day)									
	2007	2008	2009	2010	2011	2012	2013	2014	PEAK
Construction Equipment	5.50	37.76	32.19	19.33	14.22	14.22	2.93	0.00	37.76
Onsite Fugitive Dust	309.89	899.15	1049.23	1048.89	401.17	190.79	360.60	0.00	1049.23
Concrete Batching	165.41	165.41	165.41	165.41	165.41	165.41	165.41	0.00	165.41
Crushing/Processing	27.22	27.22	27.22	27.22	27.22	27.22	27.22	0.00	27.22
Onsite Subtotal	*508.01*	*1129.54*	*1274.05*	*1260.85*	*608.02*	*397.64*	*556.16*	*0.00*	*1274.05*
Offsite Haul Trucks	0.00	100.64	69.46	97.98	57.76	30.59	85.00	0.00	100.64
Worker Trips	3.88	10.61	16.59	12.70	4.48	4.48	2.99	0.00	16.59
Offsite Subtotal	*3.88*	*111.25*	*86.05*	*110.68*	*62.24*	*35.07*	*87.98*	*0.00*	*111.25*
Total	**511.90**	**1240.79**	**1360.09**	**1371.53**	**670.26**	**432.71**	**644.14**	**0.00**	**1371.53**
Emissions of $PM_{2.5}$ (lbs/day)									
	2007	2008	2009	2010	2011	2012	2013	2014	PEAK
Construction Equipment	4.92	34.43	29.56	17.71	12.88	12.88	2.64	0.00	34.43
Onsite Fugitive Dust	64.46	187.02	218.24	218.17	83.44	39.68	75.00	0.00	218.24
Concrete Batching	111.47	111.47	111.47	111.47	111.47	111.47	111.47	0.00	111.47
Crushing/Processing	2.33	2.33	2.33	2.33	2.33	2.33	2.33	0.00	2.33
Onsite Subtotal	*183.18*	*335.26*	*361.60*	*349.68*	*210.12*	*166.37*	*191.44*	*0.00*	*361.60*
Offsite Haul Trucks	0.00	26.35	18.19	25.65	15.12	8.01	22.25	0.00	26.35
Worker Trips	0.73	1.99	3.11	2.38	0.84	0.84	0.56	0.00	3.11
Offsite Subtotal	*0.73*	*28.34*	*21.29*	*28.03*	*15.96*	*8.85*	*22.81*	*0.00*	*28.34*
Total	**183.91**	**363.60**	**382.89**	**377.72**	**226.09**	**175.21**	**214.26**	**0.00**	**382.89**

Notes:
Concrete Batching and Materials Processing (Crushing) are assume to be controlled for permitting, controls are part of project design.
Concrete Batching and Materials Processing (Crushing) are assume to begin in 4th Quarter of 2007; one (1) Batch Plant and two (2) Processing Facilities assumed to operate during project construction.
Offsite Haul Trucks and Worker Trips includes paved road dust in PM10 and PM2.5 emission factors.

Alternative 1 - Mitigated Emissions Summary

Emissions of ROG (tons/year)									
	2007	2008	2009	2010	2011	2012	2013	2014	Peak Yr
Construction Equipment	1.66	15.46	19.72	15.93	1.77	3.22	0.14	0.00	19.72
Onsite Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Batching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Subtotal	*1.66*	*15.46*	*19.72*	*15.93*	*1.77*	*3.22*	*0.14*	*0.00*	*19.72*
Offsite Haul Trucks	0.00	0.14	0.35	0.72	0.65	0.04	0.17	0.00	0.72
Worker Trips	0.08	0.25	0.32	0.24	1.47	0.06	0.10	0.00	1.47
Offsite Subtotal	*0.08*	*0.39*	*0.67*	*0.96*	*2.12*	*0.11*	*0.27*	*0.00*	*2.12*
Total	**1.75**	**15.85**	**20.39**	**16.89**	**3.89**	**3.33**	**0.40**	**0.00**	**20.39**
Emissions of CO (tons/year)									
	2007	2008	2009	2010	2011	2012	2013	2014	Peak Yr
Construction Equipment	6.82	190.90	280.95	234.01	72.13	51.64	0.62	0.00	280.95
Onsite Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Batching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Subtotal	*6.82*	*190.90*	*280.95*	*234.01*	*72.13*	*51.64*	*0.62*	*0.00*	*280.95*
Offsite Haul Trucks	0.00	0.52	1.30	2.68	2.41	0.16	0.63	0.00	2.68
Worker Trips	2.80	8.44	10.83	8.03	0.06	2.18	3.27	0.00	10.83
Offsite Subtotal	*2.80*	*8.96*	*12.12*	*10.70*	*2.47*	*2.35*	*3.90*	*0.00*	*12.12*
Total	**9.62**	**199.86**	**293.07**	**244.71**	**74.60**	**53.99**	**4.52**	**0.00**	**293.07**
Emissions of NOx (tons/year)									
	2007	2008	2009	2010	2011	2012	2013	2014	Peak Yr
Construction Equipment	6.00	111.96	163.94	137.19	48.71	34.67	0.47	0.00	163.94
Onsite Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Batching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Subtotal	*6.00*	*111.96*	*163.94*	*137.19*	*48.71*	*34.67*	*0.47*	*0.00*	*163.94*
Offsite Haul Trucks	0.00	2.33	5.77	11.91	10.74	0.73	2.80	0.00	11.91
Worker Trips	0.27	0.82	1.05	0.78	1.96	0.21	0.32	0.00	1.96
Offsite Subtotal	*0.27*	*3.15*	*6.82*	*12.69*	*12.70*	*0.94*	*3.12*	*0.00*	*12.70*
Total	**6.27**	**115.10**	**170.76**	**149.87**	**61.41**	**35.61**	**3.59**	**0.00**	**170.76**
Emissions of PM_{10} (tons/year)									
	2007	2008	2009	2010	2011	2012	2013	2014	Peak Yr
Construction Equipment	0.23	4.05	5.78	4.80	1.78	1.29	0.02	0.00	5.78
Onsite Fugitive Dust	12.45	73.48	106.11	98.46	48.44	22.90	17.91	0.00	106.11
Concrete Batching	5.46	21.83	21.83	21.83	21.83	21.83	21.83	0.00	21.83
Crushing/Processing	0.90	3.59	3.59	3.59	3.59	3.59	3.59	0.00	3.59
Onsite Subtotal	*19.03*	*102.96*	*137.32*	*128.69*	*75.65*	*49.62*	*43.36*	*0.00*	*137.32*
Offsite Haul Trucks	0.00	0.51	1.26	2.61	2.35	0.16	0.61	0.00	2.61
Worker Trips	0.46	1.39	1.78	1.32	0.00	0.36	0.54	0.00	1.78
Offsite Subtotal	*0.46*	*1.90*	*3.04*	*3.93*	*2.36*	*0.52*	*1.15*	*0.00*	*3.93*
Total	**19.49**	**104.86**	**140.36**	**132.61**	**78.00**	**50.14**	**44.51**	**0.00**	**140.36**
Emissions of $PM_{2.5}$ (tons/year)									
	2007	2008	2009	2010	2011	2012	2013	2014	Peak Yr
Construction Equipment uction Equi		0.20	3.96	5.30	4.40	1.61	1.17	0.02	5.30
Onsite Fugitive Dust	2.59	15.28	22.07	20.48	10.08	4.76	3.73	0.00	22.07
Concrete Batching	3.68	14.71	14.71	14.71	14.71	14.71	14.71	0.00	14.71
Crushing/Processing	0.08	0.31	0.31	0.31	0.31	0.31	0.31	0.00	0.31
Onsite Subtotal	*6.35*	*30.51*	*41.05*	*40.80*	*29.50*	*21.40*	*19.92*	*0.02*	*41.05*
Offsite Haul Trucks	0.00	0.13	0.33	0.68	0.62	0.04	0.16	0.00	0.68
Worker Trips	0.09	0.26	0.33	0.25	0.32	0.07	0.10	0.00	0.33
Offsite Subtotal	*0.09*	*0.39*	*0.66*	*0.93*	*0.94*	*0.11*	*0.26*	*0.00*	*0.94*
Total	**6.43**	**30.90**	**41.71**	**41.73**	**30.43**	**21.50**	**20.18**	**0.02**	**41.73**

Notes:
Concrete Batching and Materials Processing (Crushing) are assume to be controlled for permitting, controls are part of project design.
Concrete Batching and Materials Processing (Crushing) are assume to begin in 4th Quarter of 2007; one (1) Batch Plant and two (2) Processing Facilities assumed to operate during project construction.
Offsite Haul Trucks and Worker Trips includes paved road dust in PM10 and PM2.5 emission factors.

Source: SMAQMD, "Guide to Air Quality Assessment in Sacramento County," July 2004, Table 3.2.						
Construction Equipment Emission Rates (pounds/day) for 2000-2010						
Note: Emissions rates in this table assume an eight (8) hour work day.						
Assumption: As the original table only provided data up to 2010, the emission rates after that were						
assumed equal to those of 2010 for each equipment.						
PM2.5 Size Fraction Source:	http://www.arb.ca.gov/ei/speciate/speciate.htm					
1	2	3	4	5	6	
Bore/Drill Rigs	ROG	CO	NOx	PM10	PM2.5	
2007	1.57	13.37	10.85	0.25	0.23	
2008	1.88	15.97	12.97	0.30	0.28	
2009	2.38	20.21	16.41	0.38	0.35	
2010	2.26	19.23	15.61	0.36	0.33	
2011	2.26	19.23	15.61	0.36	0.33	
2012	2.26	19.23	15.61	0.36	0.33	
2013	2.26	19.23	15.61	0.36	0.33	
2014	2.26	19.23	15.61	0.36	0.33	
Concrete/Industrial Saws						
2007	1.08	7.97	7.84	0.29	0.27	
2008	1.08	8.26	7.44	0.26	0.24	
2009	1.08	8.56	7.04	0.23	0.21	
2010	1.08	8.86	6.65	0.20	0.18	
2011	1.08	8.86	6.65	0.20	0.18	
2012	1.08	8.86	6.65	0.20	0.18	
2013	1.08	8.86	6.65	0.20	0.18	
2014	1.08	8.86	6.65	0.20	0.18	
Cranes						
2007	1.44	12.27	8.37	0.23	0.21	
2008	1.44	12.27	8.37	0.23	0.21	
2009	1.44	12.27	8.37	0.23	0.21	
2010	1.44	12.27	8.37	0.23	0.21	
2011	1.44	12.27	8.37	0.23	0.21	
2012	1.44	12.27	8.37	0.23	0.21	
2013	1.44	12.27	8.37	0.23	0.21	
2014	1.44	12.27	8.37	0.23	0.21	
Crawler Tractors						
2007	1.45	10.75	10.58	0.39	0.36	
2008	1.45	11.15	10.04	0.35	0.32	
2009	1.45	11.55	9.50	0.31	0.29	
2010	1.45	11.95	8.96	0.27	0.25	
2011	1.45	11.95	8.96	0.27	0.25	
2012	1.45	11.95	8.96	0.27	0.25	
2013	1.45	11.95	8.96	0.27	0.25	
2014	1.45	11.95	8.96	0.27	0.25	
Crushing Proc. Equipment						
2007	2.12	15.69	15.45	0.57	0.52	
2008	2.12	16.28	14.66	0.51	0.47	
2009	2.12	16.86	13.88	0.45	0.41	
2010	2.12	17.45	13.09	0.40	0.37	
2011	2.12	17.45	13.09	0.40	0.37	
2012	2.12	17.45	13.09	0.40	0.37	
2013	2.12	17.45	13.09	0.40	0.37	
2014	2.12	17.45	13.09	0.40	0.37	
Excavators						
2007	1.84	15.64	10.67	0.29	0.27	
2008	1.84	15.64	10.67	0.29	0.27	
2009	1.84	15.64	10.67	0.29	0.27	
2010	1.84	15.64	10.67	0.29	0.27	
2011	1.84	15.64	10.67	0.29	0.27	
2012	1.84	15.64	10.67	0.29	0.27	
2013	1.84	15.64	10.67	0.29	0.27	
2014	1.84	15.64	10.67	0.29	0.27	
Graders						
2007	1.76	14.98	10.22	0.28	0.26	
2008	1.76	14.98	10.22	0.28	0.26	
2009	1.76	14.98	10.22	0.28	0.26	
2010	1.76	14.98	10.22	0.28	0.26	
2011	1.76	14.98	10.22	0.28	0.26	
2012	1.76	14.98	10.22	0.28	0.26	
2013	1.76	14.98	10.22	0.28	0.26	
2014	1.76	14.98	10.22	0.28	0.26	

Off-Highway Tractors/Compactors						
2007	1.84	13.63	13.42	0.49	0.45	
2008	1.84	14.14	12.74	0.44	0.40	
2009	1.84	14.65	12.05	0.39	0.36	
2010	1.84	15.16	11.37	0.34	0.31	
2011	1.84	15.16	11.37	0.34	0.31	
2012	1.84	15.16	11.37	0.34	0.31	
2013	1.84	15.16	11.37	0.34	0.31	
2014	1.84	15.16	11.37	0.34	0.31	
Off-Highway Trucks/Water Trucks						
2007	3.60	30.62	20.89	0.58	0.53	
2008	3.60	30.62	20.89	0.58	0.53	
2009	3.60	30.62	20.89	0.58	0.53	
2010	3.60	30.62	20.89	0.58	0.53	
2011	3.60	30.62	20.89	0.58	0.53	
2012	3.60	30.62	20.89	0.58	0.53	
2013	3.60	30.62	20.89	0.58	0.53	
2014	3.60	30.62	20.89	0.58	0.53	
Pavers						
2007	1.37	11.62	7.93	0.22	0.20	
2008	1.37	11.62	7.93	0.22	0.20	
2009	1.37	11.62	7.93	0.22	0.20	
2010	1.37	11.62	7.93	0.22	0.20	
2011	1.37	11.62	7.93	0.22	0.20	
2012	1.37	11.62	7.93	0.22	0.20	
2013	1.37	11.62	7.93	0.22	0.20	
2014	1.37	11.62	7.93	0.22	0.20	
Paving Equipment						
2007	1.04	7.66	7.54	0.28	0.26	
2008	1.04	7.95	7.16	0.25	0.23	
2009	1.04	8.23	6.78	0.22	0.20	
2010	1.04	8.52	6.39	0.19	0.17	
2011	1.04	8.52	6.39	0.19	0.17	
2012	1.04	8.52	6.39	0.19	0.17	
2013	1.04	8.52	6.39	0.19	0.17	
2014	1.04	8.52	6.39	0.19	0.17	
Rollers						
2007	0.86	7.34	5.01	0.14	0.13	
2008	0.86	7.34	5.01	0.14	0.13	
2009	0.86	7.34	5.01	0.14	0.13	
2010	0.86	7.34	5.01	0.14	0.13	
2011	0.86	7.34	5.01	0.14	0.13	
2012	0.86	7.34	5.01	0.14	0.13	
2013	0.86	7.34	5.01	0.14	0.13	
2014	0.86	7.34	5.01	0.14	0.13	
Rough Terrain Forklifts						
2007	0.79	6.70	4.57	0.13	0.12	
2008	0.79	6.70	4.57	0.13	0.12	
2009	0.79	6.70	4.57	0.13	0.12	
2010	0.79	6.70	4.57	0.13	0.12	
2011	0.79	6.70	4.57	0.13	0.12	
2012	0.79	6.70	4.57	0.13	0.12	
2013	0.79	6.70	4.57	0.13	0.12	
2014	0.79	6.70	4.57	0.13	0.12	
Rubber Tired Dozers						
2007	3.66	27.11	26.69	0.98	0.90	
2008	3.66	28.12	25.33	0.88	0.81	
2009	3.66	29.13	23.97	0.78	0.72	
2010	3.66	30.14	22.61	0.68	0.63	
2011	3.66	30.14	22.61	0.68	0.63	
2012	3.66	30.14	22.61	0.68	0.63	
2013	3.66	30.14	22.61	0.68	0.63	
2014	3.66	30.14	22.61	0.68	0.63	
Rubber Tired Loaders						
2007	1.35	11.52	7.86	0.22	0.20	
2008	1.35	11.52	7.86	0.22	0.20	
2009	1.35	11.52	7.86	0.22	0.20	
2010	1.35	11.52	7.86	0.22	0.20	
2011	1.35	11.52	7.86	0.22	0.20	
2012	1.35	11.52	7.86	0.22	0.20	
2013	1.35	11.52	7.86	0.22	0.20	
2014	1.35	11.52	7.86	0.22	0.20	

Scrapers						
2007	3.64	30.96	21.12	0.58	0.53	
2008	3.64	30.96	21.12	0.58	0.53	
2009	3.64	30.96	21.12	0.58	0.53	
2010	3.64	30.96	21.12	0.58	0.53	
2011	3.64	30.96	21.12	0.58	0.53	
2012	3.64	30.96	21.12	0.58	0.53	
2013	3.64	30.96	21.12	0.58	0.53	
2014	3.64	30.96	21.12	0.58	0.53	
Signal Boards						
2007	1.72	12.70	12.50	0.46	0.42	
2008	1.72	13.18	11.87	0.41	0.38	
2009	1.72	13.65	11.23	0.37	0.34	
2010	1.72	14.12	10.60	0.32	0.29	
2011	1.72	14.12	10.60	0.32	0.29	
2012	1.72	14.12	10.60	0.32	0.29	
2013	1.72	14.12	10.60	0.32	0.29	
2014	1.72	14.12	10.60	0.32	0.29	
Skid Steer Loaders						
2007	0.56	4.78	3.26	0.09	0.08	
2008	0.56	4.78	3.26	0.09	0.08	
2009	0.56	4.78	3.26	0.09	0.08	
2010	0.56	4.78	3.26	0.09	0.08	
2011	0.56	4.78	3.26	0.09	0.08	
2012	0.56	4.78	3.26	0.09	0.08	
2013	0.56	4.78	3.26	0.09	0.08	
2014	0.56	4.78	3.26	0.09	0.08	
Surfacing Equipment						
2007	3.77	27.91	27.48	1.01	0.93	
2008	3.77	28.95	26.08	0.90	0.83	
2009	3.77	29.99	24.68	0.80	0.74	
2010	3.77	31.03	23.28	0.70	0.64	
2011	3.77	31.03	23.28	0.70	0.64	
2012	3.77	31.03	23.28	0.70	0.64	
2013	3.77	31.03	23.28	0.70	0.64	
2014	3.77	31.03	23.28	0.70	0.64	
Tractors/Loaders/Backhoes						
2007	0.65	4.82	4.74	0.17	0.16	
2008	0.65	5.00	4.50	0.16	0.15	
2009	0.65	5.18	4.26	0.14	0.13	
2010	0.65	5.36	4.02	0.12	0.11	
2011	0.65	5.36	4.02	0.12	0.11	
2012	0.65	5.36	4.02	0.12	0.11	
2013	0.65	5.36	4.02	0.12	0.11	
2014	0.65	5.36	4.02	0.12	0.11	
Trenchers						
2007	1.00	8.53	5.82	0.16	0.15	
2008	1.00	8.53	5.82	0.16	0.15	
2009	1.00	8.53	5.82	0.16	0.15	
2010	1.00	8.53	5.82	0.16	0.15	
2011	1.00	8.53	5.82	0.16	0.15	
2012	1.00	8.53	5.82	0.16	0.15	
2013	1.00	8.53	5.82	0.16	0.15	
2014	1.00	8.53	5.82	0.16	0.15	
On-Road Haul Trucks						
2007	0.253	1.119	3.126	0.121	0.104	
2008	0.253	1.119	3.126	0.121	0.104	
2009	0.253	1.119	3.126	0.121	0.104	
2010	0.253	1.119	3.126	0.121	0.104	
2011	0.253	1.119	3.126	0.121	0.104	
2012	0.253	1.119	3.126	0.121	0.104	
2013	0.253	1.119	3.126	0.121	0.104	
2014	0.253	1.119	3.126	0.121	0.104	

Estimate Summary of Materials Required for Alternative 1 - No Dam Raise/Minimal Dike Raise (Fuseplug Aux Spillway, Jet Grout MIAD)

		Auxiliary Fuseplug Spillway Construction	Main Dam Construction	Dike 1	Dike 2	Dike 3	Mooney Ridge	Dike 4	Dike 5	Dike 6	RWD	LWD	Dike 7	Dike 8	MIAD	TOTAL
	Stripping & Excavation (cu yd)	3152000	50000	0	0	0	0	11,757	70,984	26,311	306,640	97,075	0	0	235,300	3,950,067
	Shell Material Requirements (cu yd)	55000	0	0	0	0	0	3,719	99,332	14,520	227,259	66,128	0	0	905,000	1,370,958
	Fine Filter (cu yd)	6200		0	0	0	0	13,111	24,302	12,040	37,475	11,842	0	0	170,000	274,970
	Coarse Filter Material (cu yd)	8500		0	0	0	0	2,200	6,900	6,300	28,020	8,820	0	0	163,000	223,740
	Slope Protection U/S Face (cu yd)	1400		0	0	0	0	0	0	0	0	0	0	0	0	1,400
	Road Base (cu yd)	22500		0	0	0	0	1,400	1,800	1,300	6,000	1,800	0	0	5,300	40,100
	AC Paving (4-inch thick) (cu yd)	1100		0	0	0	0	460	600	430	2,000	600	0	0	1,520	6,710
	Concrete (cu yd)	124809	25000	0	0	0	0	0	0	0	0	0	0	0	0	149,809
	Reinforcement Steel (tons)	2050	4130													6,180
	Pre-cast Concrete Panels (sq ft)															0
	Grout (cu yd)														82,000	82,000
	Fuseplug Spillway Quantities															
	Common Excavation	1280500														
	Drill/Blast Excavation	1871500														
		3152000														
	Shotcrete	1353														
	Reinforced Concrete	23301														
	Roller compacted concrete	100000														
	Parapets	155														
		124809														
	Reinforcing Bars	4100000														
		2050														
		0														
	Main Dam Pier wrap		77													
	Pier braces		176													
	Gate Arms		340													
	Cutoff		0													
			593	1088												
	Assumptions															
	1	All filter material, aggregate, and asphalt transported to site from off-ste sources														
	2	All shell material for the LWD and MIAD hauled from Folsom Point or D1/D2 spoils location.														
	3	Auxilliary spillway excavated material transported to Folsom Point for processing or to D1/D2 for storage.														
	4	Shell material for Dike 4, Dike 5, Dike 6 and RWD excavated at Beals Point borrow site.														
	5	Stripped/excavated material from dikes to be stored locally at site until placed on facility or graded as part of site restoration.														
	6	Auxilliary spillway excavated material used as borrow for LWD and MIAD, stored and processed at Folsom Point														
	7	Jet grout batch plant at MIAD														
	8	Concrete batch plant at main dam only.														
	9	Articulated trucks, bottom dumps, and scrapers are on-road vehicles														
	10	Quarry trucks are off-road vehicles at 30 cy capacity.														

	Equipment	Auxiliary Fuseplug Spillway Construction	Main Dam Construction	Dike 1	Dike 2	Dike 3	Mooney Ridge	Dike 4	Dike 5	Dike 6	RWD	LWD	Dike 7	Dike 8	MIAD	TOTAL
	Stripping Days	182	12	0	0	0		4	12	8	25	16	0	0	40	
CrawlerTractors	CAT D7G Bulldozer		2					2	0	0		2				
CrawlerTractors	CAT D9 Bulldozer	1							2	2						
CrawlerTractors	CAT D11 Dozer														2	
Scrapers	CAT 657 Scraper														4	
RubberTiredLoaders	CAT 966F Series II Wheel Loader		2					2	2	2	0	2			4	
OffHighwayTrucksWaterTrucks	CAT D350E Articulated Truck	10	4					4	4	4		4			8	
OffHighwayTrucksWaterTrucks	Quarry Truck 771D										6					
Excavators	CAT 375 Excavator	1									2					
Graders	CAT 160H Motor Grader with ripper	1						1	1	1	1	1			1	
OffHighwayTrucksWaterTrucks	Water Truck	1														
	Shell Excavation Days	600						2	10	6	60	30			30	
CrawlerTractors	CAT D7G Bulldozer							1	0	0		2				
CrawlerTractors	CAT D9 Bulldozer	2							2	2					1	
CrawlerTractors	CAT D11 Bulldozer	1							0	0					1	
Excavators	CAT 375 Excavator										2					
Scrapers	CAT 657 Scraper	10													4	
Graders	160H Motor Grader with ripper														1	
OffHighwayTrucksWaterTrucks	CAT D350E Articulated Truck															
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	3									10					

Graders	Road Grader with Ripper 160H															
RubberTiredLoaders	CAT 966F Series II Wheel Loader	0						1	2	2		2			4	
OffHighwayTrucksWaterTrucks	CAT D350E Articulated Truck	4						2	4	4		4			8	
BoreDrillRigs	Drill Rig	2														
OffHighwayTrucksWaterTrucks	Water Truck															
	Embankment Placement Days							20	40	30	120	30			500	
CrawlerTractors	CAT D7G Bulldozer							2	0	0	0	2			0	
CrawlerTractors	CAT D9R Dozer								2	2	2				1	
CrawlerTractors	CAT D11 Dozer														1	
Scrapers	CAT 657 Scraper														4	
RubberTiredLoaders	CAT 966F Series II Wheel Loader							1	1	1	1	1			2	
Excavators	Excavator 375L										1					
OffHighwayTrucksWaterTrucks	CAT D350E Articulated Truck							2	2	2		2			4	
OffHighwayTrucksWaterTrucks	Quarry Truck 771D										5					
OffHighwayTrucksWaterTrucks	Belly Dump Truck C12 Engine							5	5	5	5	5				
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor							2	2	2	2	2			1	
OffHighwayTrucksWaterTrucks	Water Truck							1	1	1	1	1			2	
	Shell Placement Days							20	65	10	80	80			700	
CrawlerTractors	CAT D7G Bulldozer							1	0	0	0	2				
CrawlerTractors	CAT D9R Dozer								2	1	2				1	
CrawlerTractors	CAT D11 Dozer														1	
Scrapers	CAT 657 Scraper														4	
RubberTiredLoaders	CAT 966F Series II Wheel Loader							2	2	2	0	2				
Excavators	Excavator 375L															
OffHighwayTrucksWaterTrucks	CAT D350E Articulated Truck							4	4	4	0	4				
OffHighwayTrucksWaterTrucks	Quarry Truck 771D										5					
OffHighwayTrucksWaterTrucks	Belly Dump Truck C12 Engine										5					
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor							1	1	1	2	1			1	
Cranes	All terrain 20-T crane															
OffHighwayTrucksWaterTrucks	Water Truck							1	1	1	1	1			2	
	Crest Pavement Days	3						3	5	3	10	3			6	
OffHighwayTrucksWaterTrucks	Belly Dump Truck C12 Engine	5						5	5	5	5	5			5	
Graders	Motor Grader 160H							1	1	1	1					
Pavers	CAT AP-800C Asphalt Paver	1						1	1	1	1	1			1	
PavingEquipment	CAT BG-650 Windrow Elevator	1						1	1	1	1	1			1	
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	2						2	2	2	2	2			2	
	Spillway Construction Days	431														
	Concrete Transit Mixer	5														
	Concrete Pump Trucks	2														
Cranes	All terrain 20-T crane	1														
CrawlerTractors	CAT D7G Bulldozer	3														
Scrapers	CAT 657 Scraper	5														
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	1														
OffHighwayTrucksWaterTrucks	CAT D350E Articulating Truck	2														
RubberTiredLoaders	Front End Loader 966F	2														
OffHighwayTrucksWaterTrucks	End Dump Trucks	6														
OffHighwayTrucksWaterTrucks	Water Truck	1														
	Materials Hauling From Off-Site Sources	Auxiliary Fuseplug Spillway Construction	Main Dam Construction	Dike 1	Dike 2	Dike 3	Mooney Ridge	Dike 4	Dike 5	Dike 6	RWD	LWD	Dike 7	Dike 8	MIAD	TOTAL
	Construction Schedule															
	Filter Material Total							15,311	31,202	18,340	65,495	20,662			333,000	
	Work Days							20	40	30	120	30			250	
	Loads @ 20 cu yd per load							766	1560	917	3275	1033			16650	
	Estimated loads per work day							**38**	**39**	**31**	**27**	**34**			**67**	
	Crest Road Base Gravel															
	Work Days	30						2	3	2	6	2			5	
	Gravel total	22500						1,400	1,800	1,300	6,000	1,800			5,300	
	Loads @ 20 cu yd per load	1125						70	90	65	300	90			265	
	Estimated loads per work day	38						**35**	**30**	**33**	**50**	**45**			**53**	
	Crest Road Asphalt															
	Work Days	3						1	2	1	4	1			1	
	Asphalt Total	1100						460	600	430	2,000	600			1,520	
	Loads @ 17 cu yd per load	65						27	35	25	118	35			89	
	Estimated loads per work day	22						**27**	**18**	**25**	**29**	**35**			**30**	
	Raw Materials for Concrete Mixing															
	Work Days	431	60												720	

	Cement and Gravel Transport Total	124809	25000												82,000	
	Loads @ 20 cu yd per load	6240	1250												4100	
	Estimated loads per work day	14	21												6	
	Reinforcement Steel Transport															
	Work Days	100	60													
	Steel Transport Total	2050	4130													
	Loads @ 10 tons per load	205	413													
	Estimated loads per work day	2	7													
		Auxiliary Fuseplug Spillway Construction	Main Dam Construction	Dike 1	Dike 2	Dike 3	Mooney Ridge	Dike 4	Dike 5	Dike 6	RWD	LWD	Dike 7	Dike 8	MIAD	TOTAL
	Materials Hauling On-site															
	Auxilliary Spillway Excavation															
	Work Days	782														
	Total Transported	3152000														
	Loads @ 20 tons per load	157600														
	Estimated Loads per work day	202														
	Beals Point Excavation															
	Work Days	240														
	Total Transported/Processed	482,762														
	Loads @ 20 tons per load	24138.1														
	Estimated Loads per work day	101														
	Folsom Point Processing															
	Work Days	780														
	Total Processed	1,359,579														
	Loads @ 20 tons per load	67978.96														
	Estimated Loads per work day	87														
	Spillway Concrete Hauling															
	Work Days	431														
	Total Processed	124809														
	Loads @ 10 cy per load	12480.9														
	Estimated Loads per work day	29														
	On-site Dike Reconstruction Hauling															
	Work Days							20	105	40	200	110			700	
	Materials Total							15,476	170,316	40,831	533,899	163,203			1,140,300	
	Loads @ 20 cu yd per load							773.8	8516	2042					57015	
	Loads @ 30 cu yd per load										17797	5440				
	Estimated loads per work day							39	81	51	89	49			81	

		NOx	Daily Emission (lbs/day)						
		2007	2008	2009	2010	2011	2012	2013	2014
	Stripping Days	82	164	25	0	0	16	12	0
CrawlerTractors	CAT D7G Bulldozer	-	40.16	-	-	-	35.84	35.84	-
CrawlerTractors	CAT D9 Bulldozer	21.16	80.32	-	-	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	40.16	-	-	-	-	-	-
Scrapers	CAT 657 Scraper	-	168.96	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	157.20	-	-	-	31.44	31.44	-
OnRoadHaul	CAT D350E Articulated Truck	62.53	125.05	-	-	-	25.01	25.01	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	-	250.68	-	-	-	-	-
Excavators	CAT 375 Excavator	21.34	-	42.68	-	-	-	-	-
Graders	CAT 160H Motor Grader with ripper	20.44	81.76	20.44	-	-	20.44	-	-
OffHighwayTrucksWaterTrucks	Water Truck	41.78	-	-	-	-	-	-	-
	Subtotal	167.25	693.61	313.80	-	-	112.73	92.29	-
	Shell Excavation Days	0	198	310	200	0	30	0	0
CrawlerTractors	CAT D7G Bulldozer	-	20.08	-	-	-	35.84	-	-
CrawlerTractors	CAT D9 Bulldozer	-	140.56	38.00	35.84	-	-	-	-
CrawlerTractors	CAT D11 Bulldozer	-	40.16	19.00	17.92	-	-	-	-
Excavators	CAT 375 Excavator	-	-	42.68	-	-	-	-	-
Scrapers	CAT 657 Scraper	-	591.36	422.40	422.40	-	-	-	-
Graders	160H Motor Grader with ripper	-	20.44	-	-	-	-	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	125.34	543.14	125.34	-	-	-	-
Graders	Road Grader with Ripper 160H	-	-	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	141.48	-	-	-	31.44	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	137.56	25.01	25.01	-	25.01	-	-
BoreDrillRigs	Drill Rig	-	51.88	65.64	62.44	-	-	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	-	-	-	-	-	-	-
	Subtotal	-	1,268.86	1,155.87	688.95	-	92.29	-	-
	Embankment Placement Days	0	190	320	200	0	30	0	0
CrawlerTractors	CAT D7G Bulldozer	-	40.16	-	-	-	35.84	-	-
CrawlerTractors	CAT D9R Dozer	-	100.40	57.00	17.92	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	20.08	19.00	17.92	-	-	-	-
Scrapers	CAT 657 Scraper	-	168.96	168.96	168.96	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	78.60	47.16	31.44	-	15.72	-	-
Excavators	Excavator 375L	-	-	21.34	-	-	-	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	62.53	25.01	25.01	-	12.51	-	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	-	208.90	-	-	-	-	-
OnRoadHaul	Belly Dump Truck C12 Engine	-	93.79	31.26	-	-	31.26	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	178.36	72.30	22.74	-	45.48	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	208.90	125.34	83.56	-	41.78	-	-
	Subtotal	-	951.78	776.27	367.55	-	182.59	-	-
	Shell Placement Days	0	325	235	315	0	80	0	0
CrawlerTractors	CAT D7G Bulldozer	-	20.08	-	-	-	35.84	-	-
CrawlerTractors	CAT D9R Dozer	-	80.32	19.00	53.76	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	20.08	19.00	17.92	-	-	-	-
Scrapers	CAT 657 Scraper	-	168.96	168.96	168.96	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	94.32	-	-	-	31.44	-	-
Excavators	Excavator 375L	-	-	-	-	-	-	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	75.03	-	-	-	25.01	-	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	-	-	208.90	-	-	-	-
OnRoadHaul	Belly Dump Truck C12 Engine	-	-	-	31.26	-	-	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	101.92	24.10	68.22	-	22.74	-	-
Cranes	All terrain 20-T crane	-	-	-	-	-	-	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	208.90	83.56	125.34	-	22.74	-	-
	Subtotal	-	769.61	314.62	674.36	-	137.77	-	-
	Crest Pavement Days	0	11	0	26	0	6	0	0
OnRoadHaul	Belly Dump Truck C12 Engine	-	93.79	-	62.53	-	62.53	-	-
Graders	Motor Grader 160H	-	61.32	-	20.44	-	-	-	-
Pavers	CAT AP-800C Asphalt Paver	-	47.58	-	31.72	-	31.72	-	-
PavingEquipment	CAT BG-650 Windrow Elevator	-	42.96	-	25.56	-	25.56	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	152.88	-	90.96	-	90.96	-	-
	Subtotal	-	398.53	-	231.21	-	210.77	-	-
	Spillway Construction Days	0	0	0	50	250	131	0	0
OnRoadHaul	Concrete Transit Mixer	-	-	-	31.26	31.26	31.26	-	-
OnRoadHaul	Concrete Pump Trucks	-	-	-	12.51	12.51	12.51	-	-
Cranes	All terrain 20-T crane	-	-	-	16.74	16.74	16.74	-	-
CrawlerTractors	CAT D7G Bulldozer	-	-	-	53.76	53.76	53.76	-	-
Scrapers	CAT 657 Scraper	-	-	-	211.20	211.20	211.20	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	-	-	22.74	22.74	22.74	-	-
OnRoadHaul	CAT D350E Articulating Truck	-	-	-	12.51	12.51	12.51	-	-
RubberTiredLoaders	Front End Loader 966F	-	-	-	31.44	31.44	31.44	-	-
OnRoadHaul	End Dump Trucks	-	-	-	37.52	37.52	37.52	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	-	-	41.78	41.78	41.78	-	-
	Subtotal	-	-	-	471.45	471.45	471.45	-	-
	Parapet Wall Construction Days	0	0	0	0	0	0	0	0
Cranes	All terrain 20-T crane	-	-	-	-	-	-	-	-
OnRoadHaul	Flatbed Truck for Forms movement	-	-	-	-	-	-	-	-
	Subtotal	-	-	-	-	-	-	-	-
	Maximum Daily	167.2	1,268.9	1,155.9	689.0	471.4	471.4	92.3	-

	Annual Emissions (tpy)							
	2007	2008	2009	2010	2011	2012	2013	2014
Stripping Days								
CAT D7G Bulldozer	-	0.080	-	-	-	0.287	0.215	-
CAT D9 Bulldozer	0.868	0.402	-	-	-	-	-	-
CAT D11 Dozer	-	0.803	-	-	-	-	-	-
CAT 657 Scraper	-	3.379	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	1.635	-	-	-	0.252	0.189	-
CAT D350E Articulated Truck	2.564	1.301	-	-	-	0.200	0.150	-
Quarry Truck 771D	-	-	3.134	-	-	-	-	-
CAT 375 Excavator	0.875	-	0.534	-	-	-	-	-
CAT 160H Motor Grader with ripper	0.838	0.654	0.256	-	-	0.164	-	-
Water Truck	1.713	-	-	-	-	-	-	-
Subtotal	6.86	8.25	3.92	-	-	0.90	0.55	-
Shell Excavation Days								
CAT D7G Bulldozer	-	0.020	-	-	-	0.538	-	-
CAT D9 Bulldozer	-	3.634	4.750	3.584	-	-	-	-
CAT D11 Bulldozer	-	1.807	2.375	1.792	-	-	-	-
CAT 375 Excavator	-	-	1.280	-	-	-	-	-
CAT 657 Scraper	-	34.214	52.800	42.240	-	-	-	-
160H Motor Grader with ripper	-	0.307	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	9.401	28.202	12.534	-	-	-	-
Road Grader with Ripper 160H	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	1.210	-	-	-	0.472	-	-
CAT D350E Articulated Truck	-	2.839	3.126	2.501	-	0.375	-	-
Drill Rig	-	3.891	8.205	6.244	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal	-	57.32	100.74	68.90	-	1.38	-	-
Embankment Placement Days								
CAT D7G Bulldozer	-	0.402	-	-	-	0.538	-	-
CAT D9R Dozer	-	2.410	4.180	1.792	-	-	-	-
CAT D11 Dozer	-	1.004	1.900	1.792	-	-	-	-
CAT 657 Scraper	-	8.448	16.896	16.896	-	-	-	-
CAT 966F Series II Wheel Loader	-	2.279	4.087	3.144	-	0.236	-	-
Excavator 375L	-	-	1.280	-	-	-	-	-
CAT D350E Articulated Truck	-	1.813	2.501	2.501	-	0.188	-	-
Quarry Truck 771D	-	-	12.534	-	-	-	-	-
Belly Dump Truck C12 Engine	-	1.407	1.876	-	-	0.469	-	-
CAT CB-534C Vibratory Compactor	-	3.567	5.302	2.274	-	0.682	-	-
Water Truck	-	6.058	10.863	8.356	-	0.627	-	-
Subtotal	-	27.39	61.42	36.76	-	2.74	-	-
Shell Placement Days								
CAT D7G Bulldozer	-	0.201	-	-	-	1.434	-	-
CAT D9R Dozer	-	3.715	2.233	3.539	-	-	-	-
CAT D11 Dozer	-	2.309	2.233	2.106	-	-	-	-
CAT 657 Scraper	-	19.430	19.853	19.853	-	-	-	-
CAT 966F Series II Wheel Loader	-	1.493	-	-	-	1.258	-	-
Excavator 375L	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	1.188	-	-	-	1.000	-	-
Quarry Truck 771D	-	-	-	8.356	-	-	-	-
Belly Dump Truck C12 Engine	-	-	-	1.251	-	-	-	-
CAT CB-534C Vibratory Compactor	-	4.141	2.832	4.491	-	0.910	-	-
All terrain 20-T crane	-	-	-	-	-	-	-	-
Water Truck	-	11.594	9.818	11.490	-	0.910	-	-
Subtotal	-	44.07	36.97	51.08	-	5.51	-	-
Crest Pavement Days								
Belly Dump Truck C12 Engine	-	0.172	-	0.250	-	0.094	-	-
Motor Grader 160H	-	0.112	-	0.102	-	-	-	-
CAT AP-800C Asphalt Paver	-	0.087	-	0.127	-	0.048	-	-
CAT BG-650 Windrow Elevator	-	0.079	-	0.102	-	0.038	-	-
CAT CB-534C Vibratory Compactor	-	0.280	-	0.364	-	0.136	-	-
Subtotal	-	0.73	-	0.95	-	0.32	-	-
Spillway Construction Days								
Concrete Transit Mixer	-	-	-	0.782	3.908	2.048	-	-
Concrete Pump Trucks	-	-	-	0.313	1.563	0.819	-	-
All terrain 20-T crane	-	-	-	0.419	2.093	1.096	-	-
CAT D7G Bulldozer	-	-	-	1.344	6.720	3.521	-	-
CAT 657 Scraper	-	-	-	5.280	26.400	13.834	-	-
CAT CB-534C Vibratory Compactor	-	-	-	0.569	2.843	1.489	-	-
CAT D350E Articulating Truck	-	-	-	0.313	1.563	0.819	-	-
Front End Loader 966F	-	-	-	0.786	3.930	2.059	-	-
End Dump Trucks	-	-	-	0.938	4.689	2.457	-	-
Water Truck	-	-	-	1.045	5.223	2.737	-	-
Subtotal	-	-	-	11.79	58.93	30.88	-	-
Parapet Wall Construction Days								
All terrain 20-T crane	-	-	-	-	-	-	-	-
Flatbed Truck for Forms movement	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-
Annual Total	6.857	137.767	203.048	169.466	58.931	41.732	0.554	-

	Annual Emissions (tpy)							
	2007	2008	2009	2010	2011	2012	2013	2014
BoreDrillRigs	-	3.891	8.205	6.244	-	-	-	-
Cranes	-	-	-	0.419	2.093	1.096	-	-
CrawlerTractors	0.868	16.787	17.670	15.949	6.720	6.317	0.215	-
Excavators	0.875	-	3.094	-	-	-	-	-
Graders	0.838	1.073	0.256	0.102	-	0.164	-	-
OffHighwayTractorsCompactors	-	7.988	8.134	7.697	2.843	3.218	-	-
OffHighwayTrucksWaterTrucks	1.713	27.053	64.550	41.780	5.223	4.273	-	-
OnRoadHaul	2.564	8.719	7.503	8.847	11.724	8.469	0.150	-
Pavers	-	0.087	-	0.127	-	0.048	-	-
PavingEquipment	-	0.079	-	0.102	-	0.038	-	-
RubberTiredLoaders	-	6.618	4.087	3.930	3.930	4.276	0.189	-
Scrapers	-	65.472	89.549	84.269	26.400	13.834	-	-
	6.857	137.767	203.048	169.466	58.931	41.732	0.554	-
Mitigated Total	5.486	110.214	162.438	135.573	47.145	33.386	0.443	-
Potential ERC Cost (@$43,000/ton)	$ -	$ 4,739,183	$ 6,984,845	$ 5,829,644	$ -	$ -	$ -	$ -

	NOx	Daily Emission (lbs/day)							
		2007	2008	2009	2010	2011	2012	2013	2014
	Stripping Days	82	100	0	0	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer	-							
CrawlerTractors	CAT D9 Bulldozer	21.16							
CrawlerTractors	CAT D11 Dozer	-							
Scrapers	CAT 657 Scraper	-							
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-							
OnRoadHaul	CAT D350E Articulated Truck	62.53							
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-							
Excavators	CAT 375 Excavator	21.34							
Graders	CAT 160H Motor Grader with ripper	20.44							
OffHighwayTrucksWaterTrucks	Water Truck	41.78							
	Subtotal	167.25	-	-	-	-	-	-	-
	Shell Excavation Days	0	150	250	200	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer		-	-	-				
CrawlerTractors	CAT D9 Bulldozer		40.16	38.00	35.84				
CrawlerTractors	CAT D11 Bulldozer		20.08	19.00	17.92				
Excavators	CAT 375 Excavator		-	-	-				
Scrapers	CAT 657 Scraper		422.40	422.40	422.40				
Graders	160H Motor Grader with ripper		-	-	-				
OnRoadHaul	CAT D350E Articulated Truck		-	-	-				
OffHighwayTrucksWaterTrucks	Quarry Truck 771D		125.34	125.34	125.34				
Graders	Road Grader with Ripper 160H		-	-	-				
RubberTiredLoaders	CAT 966F Series II Wheel Loader		-	-	-				
OnRoadHaul	CAT D350E Articulated Truck		25.01	25.01	25.01				
BoreDrillRigs	Drill Rig		51.88	65.64	62.44				
OffHighwayTrucksWaterTrucks	Water Truck		-	-	-				
	Subtotal	-	684.87	695.39	688.95	-	-	-	-
	Embankment Placement Days	0	0	0	0	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer								
CrawlerTractors	CAT D9R Dozer								
CrawlerTractors	CAT D11 Dozer								
Scrapers	CAT 657 Scraper								
RubberTiredLoaders	CAT 966F Series II Wheel Loader								
Excavators	Excavator 375L								
OnRoadHaul	CAT D350E Articulated Truck								
OffHighwayTrucksWaterTrucks	Quarry Truck 771D								
OnRoadHaul	Belly Dump Truck C12 Engine								
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor								
OffHighwayTrucksWaterTrucks	Water Truck								
	Subtotal	-	-	-	-	-	-	-	-
	Shell Placement Days	0	0	0	0	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer								
CrawlerTractors	CAT D9R Dozer								
CrawlerTractors	CAT D11 Dozer								
Scrapers	CAT 657 Scraper								
RubberTiredLoaders	CAT 966F Series II Wheel Loader								
Excavators	Excavator 375L								
OnRoadHaul	CAT D350E Articulated Truck								
OffHighwayTrucksWaterTrucks	Quarry Truck 771D								
OnRoadHaul	Belly Dump Truck C12 Engine								
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor								
Cranes	All terrain 20-T crane								
OffHighwayTrucksWaterTrucks	Water Truck								
	Subtotal	-	-	-	-	-	-	-	-
	Crest Pavement Days						3		
OnRoadHaul	Belly Dump Truck C12 Engine						31.26		
Graders	Motor Grader 160H						-		
Pavers	CAT AP-800C Asphalt Paver						15.86		
PavingEquipment	CAT BG-650 Windrow Elevator						12.78		
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor						45.48		
	Subtotal	-	-	-	-	-	105.38	-	-
	Spillway Construction Days	0	0	0	50	250	131	0	0
OnRoadHaul	Concrete Transit Mixer				31.26	31.26	31.26		
OnRoadHaul	Concrete Pump Trucks				12.51	12.51	12.51		
Cranes	All terrain 20-T crane				16.74	16.74	16.74		
CrawlerTractors	CAT D7G Bulldozer				53.76	53.76	53.76		
Scrapers	CAT 657 Scraper				211.20	211.20	211.20		
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor				22.74	22.74	22.74		
OnRoadHaul	CAT D350E Articulating Truck				12.51	12.51	12.51		
RubberTiredLoaders	Front End Loader 966F				31.44	31.44	31.44		
OnRoadHaul	End Dump Trucks				37.52	37.52	37.52		
OffHighwayTrucksWaterTrucks	Water Truck				41.78	41.78	41.78		
	Subtotal	-	-	-	471.45	471.45	471.45	-	-
	Parapet Wall Construction Days	0	0	0	0	0	0	0	0
Cranes	All terrain 20-T crane								
OnRoadHaul	Flatbed Truck for Forms movement								
	Subtotal	-	-	-	-	-	-	-	-
	Maximum Daily	167.2	684.9	695.4	689.0	471.4	471.4	-	-

NOx	Annual Emissions (tpy)							
	2007	2008	2009	2010	2011	2012	2013	2014
Stripping Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9 Bulldozer	0.868	-	-	-	-	-	-	-
CAT D11 Dozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	2.564	-	-	-	-	-	-	-
Quarry Truck 771D	-	-	-	-	-	-	-	-
CAT 375 Excavator	0.875	-	-	-	-	-	-	-
CAT 160H Motor Grader with ripper	0.838	-	-	-	-	-	-	-
Water Truck	1.713	-	-	-	-	-	-	-
Subtotal								
Shell Excavation Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9 Bulldozer	-	3.012	4.750	3.584	-	-	-	-
CAT D11 Bulldozer	-	1.506	2.375	1.792	-	-	-	-
CAT 375 Excavator	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	31.680	52.800	42.240	-	-	-	-
160H Motor Grader with ripper	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	9.401	15.668	12.534	-	-	-	-
Road Grader with Ripper 160H	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	1.876	3.126	2.501	-	-	-	-
Drill Rig	-	3.891	8.205	6.244	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal								
Embankment Placement Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9R Dozer	-	-	-	-	-	-	-	-
CAT D11 Dozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
Excavator 375L	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	-	-	-	-	-	-	-
Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal								
Shell Placement Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9R Dozer	-	-	-	-	-	-	-	-
CAT D11 Dozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
Excavator 375L	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	-	-	-	-	-	-	-
Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
All terrain 20-T crane	-	-	-	-	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal								
Crest Pavement Days								
Belly Dump Truck C12 Engine	-	-	-	-	-	0.047	-	-
Motor Grader 160H	-	-	-	-	-	-	-	-
CAT AP-800C Asphalt Paver	-	-	-	-	-	0.024	-	-
CAT BG-650 Windrow Elevator	-	-	-	-	-	0.019	-	-
CAT CB-534C Vibratory Compactor	-	-	-	-	-	0.068	-	-
Subtotal								
Spillway Construction Days								
Concrete Transit Mixer	-	-	-	0.782	3.908	2.048	-	-
Concrete Pump Trucks	-	-	-	0.313	1.563	0.819	-	-
All terrain 20-T crane	-	-	-	0.419	2.093	1.096	-	-
CAT D7G Bulldozer	-	-	-	1.344	6.720	3.521	-	-
CAT 657 Scraper	-	-	-	5.280	26.400	13.834	-	-
CAT CB-534C Vibratory Compactor	-	-	-	0.569	2.843	1.489	-	-
CAT D350E Articulating Truck	-	-	-	0.313	1.563	0.819	-	-
Front End Loader 966F	-	-	-	0.786	3.930	2.059	-	-
End Dump Trucks	-	-	-	0.938	4.689	2.457	-	-
Water Truck	-	-	-	1.045	5.223	2.737	-	-
Subtotal								
Parapet Wall Construction Days								
All terrain 20-T crane	-	-	-	-	-	-	-	-
Flatbed Truck for Forms movement	-	-	-	-	-	-	-	-
Subtotal								
Annual Total	6.857	51.365	86.924	80.681	58.931	31.038	-	-

	NOx	Daily Emission (lbs/day)							
		2007	2008	2009	2010	2011	2012	2013	2014
	Stripping Days	0	40	0	0	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer		-						
CrawlerTractors	CAT D9 Bulldozer		-						
CrawlerTractors	CAT D11 Dozer		40.16						
Scrapers	CAT 657 Scraper		168.96						
RubberTiredLoaders	CAT 966F Series II Wheel Loader		62.88						
OnRoadHaul	CAT D350E Articulated Truck		50.02						
OffHighwayTrucksWaterTrucks	Quarry Truck 771D		-						
Excavators	CAT 375 Excavator		-						
Graders	CAT 160H Motor Grader with ripper		20.44						
OffHighwayTrucksWaterTrucks	Water Truck		-						
	Subtotal	-	342.46	-	-	-	-	-	-
	Shell Excavation Days	0	30	0	0	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer		-						
CrawlerTractors	CAT D9 Bulldozer		20.08						
CrawlerTractors	CAT D11 Bulldozer		20.08						
Excavators	CAT 375 Excavator		-						
Scrapers	CAT 657 Scraper		168.96						
Graders	160H Motor Grader with ripper		20.44						
OnRoadHaul	CAT D350E Articulated Truck		-						
OffHighwayTrucksWaterTrucks	Quarry Truck 771D		-						
Graders	Road Grader with Ripper 160H		-						
RubberTiredLoaders	CAT 966F Series II Wheel Loader		62.88						
OnRoadHaul	CAT D350E Articulated Truck		50.02						
BoreDrillRigs	Drill Rig		-						
OffHighwayTrucksWaterTrucks	Water Truck		-						
	Subtotal	-	342.46	-	-	-	-	-	-
	Embankment Placement Days	0	100	200	200	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer		-	-	-				
CrawlerTractors	CAT D9R Dozer		20.08	19.00	17.92				
CrawlerTractors	CAT D11 Dozer		20.08	19.00	17.92				
Scrapers	CAT 657 Scraper		168.96	168.96	168.96				
RubberTiredLoaders	CAT 966F Series II Wheel Loader		31.44	31.44	31.44				
Excavators	Excavator 375L		-	-	-				
OnRoadHaul	CAT D350E Articulated Truck		25.01	25.01	25.01				
OffHighwayTrucksWaterTrucks	Quarry Truck 771D		-	-	-				
OnRoadHaul	Belly Dump Truck C12 Engine		-	-	-				
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor		25.48	24.10	22.74				
OffHighwayTrucksWaterTrucks	Water Truck		83.56	83.56	83.56				
	Subtotal	-	374.61	371.07	367.55	-	-	-	-
	Shell Placement Days	0	230	235	235	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer		-	-	-				
CrawlerTractors	CAT D9R Dozer		20.08	19.00	17.92				
CrawlerTractors	CAT D11 Dozer		20.08	19.00	17.92				
Scrapers	CAT 657 Scraper		168.96	168.96	168.96				
RubberTiredLoaders	CAT 966F Series II Wheel Loader		-	-	-				
Excavators	Excavator 375L		-	-	-				
OnRoadHaul	CAT D350E Articulated Truck		-	-	-				
OffHighwayTrucksWaterTrucks	Quarry Truck 771D		-	-	-				
OnRoadHaul	Belly Dump Truck C12 Engine		-	-	-				
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor		25.48	24.10	22.74				
Cranes	All terrain 20-T crane		-	-	-				
OffHighwayTrucksWaterTrucks	Water Truck		83.56	83.56	83.56				
	Subtotal	-	318.16	314.62	311.10	-	-	-	-
	Crest Pavement Days	0	0	0	6	0	0	0	0
OnRoadHaul	Belly Dump Truck C12 Engine				31.26				
Graders	Motor Grader 160H				-				
Pavers	CAT AP-800C Asphalt Paver				15.86				
PavingEquipment	CAT BG-650 Windrow Elevator				12.78				
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor				45.48				
	Subtotal	-	-	-	105.38	-	-	-	-
	Spillway Construction Days	0	0	0	0	0	0	0	0
OnRoadHaul	Concrete Transit Mixer								
OnRoadHaul	Concrete Pump Trucks								
Cranes	All terrain 20-T crane								
CrawlerTractors	CAT D7G Bulldozer								
Scrapers	CAT 657 Scraper								
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor								
OnRoadHaul	CAT D350E Articulating Truck								
RubberTiredLoaders	Front End Loader 966F								
OnRoadHaul	End Dump Trucks								
OffHighwayTrucksWaterTrucks	Water Truck								
	Subtotal	-	-	-	-	-	-	-	-
	Parapet Wall Construction Days	0	0	0	0	0	0	0	0
Cranes	All terrain 20-T crane								
OnRoadHaul	Flatbed Truck for Forms movement								
	Subtotal	-	-	-	-	-	-	-	-
	Maximum Daily	-	374.6	371.1	367.6	-	-	-	-

NOx	Annual Emissions (tpy)							
	2007	2008	2009	2010	2011	2012	2013	2014
Stripping Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9 Bulldozer	-	-	-	-	-	-	-	-
CAT D11 Dozer	-	0.803	-	-	-	-	-	-
CAT 657 Scraper	-	3.379	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	1.258	-	-	-	-	-	-
CAT D350E Articulated Truck	-	1.000	-	-	-	-	-	-
Quarry Truck 771D	-	-	-	-	-	-	-	-
CAT 375 Excavator	-	-	-	-	-	-	-	-
CAT 160H Motor Grader with ripper	-	0.409	-	-	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal								
Shell Excavation Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9 Bulldozer	-	0.301	-	-	-	-	-	-
CAT D11 Bulldozer	-	0.301	-	-	-	-	-	-
CAT 375 Excavator	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	2.534	-	-	-	-	-	-
160H Motor Grader with ripper	-	0.307	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	-	-	-	-	-	-	-
Road Grader with Ripper 160H	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.943	-	-	-	-	-	-
CAT D350E Articulated Truck	-	0.750	-	-	-	-	-	-
Drill Rig	-	-	-	-	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal								
Embankment Placement Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9R Dozer	-	1.004	1.900	1.792	-	-	-	-
CAT D11 Dozer	-	1.004	1.900	1.792	-	-	-	-
CAT 657 Scraper	-	8.448	16.896	16.896	-	-	-	-
CAT 966F Series II Wheel Loader	-	1.572	3.144	3.144	-	-	-	-
Excavator 375L	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	1.251	2.501	2.501	-	-	-	-
Quarry Truck 771D	-	-	-	-	-	-	-	-
Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
CAT CB-534C Vibratory Compactor	-	1.274	2.410	2.274	-	-	-	-
Water Truck	-	4.178	8.356	8.356	-	-	-	-
Subtotal								
Shell Placement Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9R Dozer	-	2.309	2.233	2.106	-	-	-	-
CAT D11 Dozer	-	2.309	2.233	2.106	-	-	-	-
CAT 657 Scraper	-	19.430	19.853	19.853	-	-	-	-
CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
Excavator 375L	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	-	-	-	-	-	-	-
Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
CAT CB-534C Vibratory Compactor	-	2.930	2.832	2.672	-	-	-	-
All terrain 20-T crane	-	-	-	-	-	-	-	-
Water Truck	-	9.609	9.818	9.818	-	-	-	-
Subtotal								
Crest Pavement Days								
Belly Dump Truck C12 Engine	-	-	-	0.094	-	-	-	-
Motor Grader 160H	-	-	-	-	-	-	-	-
CAT AP-800C Asphalt Paver	-	-	-	0.048	-	-	-	-
CAT BG-650 Windrow Elevator	-	-	-	0.038	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	-	0.136	-	-	-	-
Subtotal								
Spillway Construction Days								
Concrete Transit Mixer	-	-	-	-	-	-	-	-
Concrete Pump Trucks	-	-	-	-	-	-	-	-
All terrain 20-T crane	-	-	-	-	-	-	-	-
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
CAT D350E Articulating Truck	-	-	-	-	-	-	-	-
Front End Loader 966F	-	-	-	-	-	-	-	-
End Dump Trucks	-	-	-	-	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal								
Parapet Wall Construction Days								
All terrain 20-T crane	-	-	-	-	-	-	-	-
Flatbed Truck for Forms movement	-	-	-	-	-	-	-	-
Subtotal								
Annual Total	-	67.305	74.075	73.625	-	-	-	-

	NOx	Daily Emission (lbs/day)							
		2007	2008	2009	2010	2011	2012	2013	2014
	Stripping Days	0	0	25	0	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer			-					
CrawlerTractors	CAT D9 Bulldozer			-					
CrawlerTractors	CAT D11 Dozer			-					
Scrapers	CAT 657 Scraper			-					
RubberTiredLoaders	CAT 966F Series II Wheel Loader			-					
OnRoadHaul	CAT D350E Articulated Truck			-					
OffHighwayTrucksWaterTrucks	Quarry Truck 771D			250.68					
Excavators	CAT 375 Excavator			42.68					
Graders	CAT 160H Motor Grader with ripper			20.44					
OffHighwayTrucksWaterTrucks	Water Truck			-					
	Subtotal	-	-	313.80	-	-	-	-	-
	Shell Excavation Days	0	0	60	0	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer			-					
CrawlerTractors	CAT D9 Bulldozer			-					
CrawlerTractors	CAT D11 Bulldozer			-					
Excavators	CAT 375 Excavator			42.68					
Scrapers	CAT 657 Scraper			-					
Graders	160H Motor Grader with ripper			-					
OnRoadHaul	CAT D350E Articulated Truck			-					
OffHighwayTrucksWaterTrucks	Quarry Truck 771D			417.80					
Graders	Road Grader with Ripper 160H			-					
RubberTiredLoaders	CAT 966F Series II Wheel Loader			-					
OnRoadHaul	CAT D350E Articulated Truck			-					
BoreDrillRigs	Drill Rig			-					
OffHighwayTrucksWaterTrucks	Water Truck			-					
	Subtotal	-	-	460.48	-	-	-	-	-
	Embankment Placement Days	0	0	120	0	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer			-					
CrawlerTractors	CAT D9R Dozer			38.00					
CrawlerTractors	CAT D11 Dozer			-					
Scrapers	CAT 657 Scraper			-					
RubberTiredLoaders	CAT 966F Series II Wheel Loader			15.72					
Excavators	Excavator 375L			21.34					
OnRoadHaul	CAT D350E Articulated Truck			-					
OffHighwayTrucksWaterTrucks	Quarry Truck 771D			208.90					
OnRoadHaul	Belly Dump Truck C12 Engine			31.26					
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor			48.20					
OffHighwayTrucksWaterTrucks	Water Truck			41.78					
	Subtotal	-	-	405.20	-	-	-	-	-
	Shell Placement Days	0	0	0	80	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer				-				
CrawlerTractors	CAT D9R Dozer				35.84				
CrawlerTractors	CAT D11 Dozer				-				
Scrapers	CAT 657 Scraper				-				
RubberTiredLoaders	CAT 966F Series II Wheel Loader				-				
Excavators	Excavator 375L				-				
OnRoadHaul	CAT D350E Articulated Truck				-				
OffHighwayTrucksWaterTrucks	Quarry Truck 771D				208.90				
OnRoadHaul	Belly Dump Truck C12 Engine				31.26				
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor				45.48				
Cranes	All terrain 20-T crane				-				
OffHighwayTrucksWaterTrucks	Water Truck				41.78				
	Subtotal	-	-	-	363.26	-	-	-	-
	Crest Pavement Days	0	0	0	10	0	0	0	0
OnRoadHaul	Belly Dump Truck C12 Engine				31.26				
Graders	Motor Grader 160H				20.44				
Pavers	CAT AP-800C Asphalt Paver				15.86				
PavingEquipment	CAT BG-650 Windrow Elevator				12.78				
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor				45.48				
	Subtotal	-	-	-	125.82	-	-	-	-
	Spillway Construction Days	0	0	0	0	0	0	0	0
OnRoadHaul	Concrete Transit Mixer								
OnRoadHaul	Concrete Pump Trucks								
Cranes	All terrain 20-T crane								
CrawlerTractors	CAT D7G Bulldozer								
Scrapers	CAT 657 Scraper								
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor								
OnRoadHaul	CAT D350E Articulating Truck								
RubberTiredLoaders	Front End Loader 966F								
OnRoadHaul	End Dump Trucks								
OffHighwayTrucksWaterTrucks	Water Truck								
	Subtotal	-	-	-	-	-	-	-	-
	Parapet Wall Construction Days	0	0	0	0	0	0	0	0
Cranes	All terrain 20-T crane								
OnRoadHaul	Flatbed Truck for Forms movement								
	Subtotal	-	-	-	-	-	-	-	-
	Maximum Daily	-	-	460.5	363.3	-	-	-	-

NOx	Annual Emissions (tpy)							
	2007	2008	2009	2010	2011	2012	2013	2014
Stripping Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9 Bulldozer	-	-	-	-	-	-	-	-
CAT D11 Dozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	-	3.134	-	-	-	-	-
CAT 375 Excavator	-	-	0.534	-	-	-	-	-
CAT 160H Motor Grader with ripper	-	-	0.256	-	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal								
Shell Excavation Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9 Bulldozer	-	-	-	-	-	-	-	-
CAT D11 Bulldozer	-	-	-	-	-	-	-	-
CAT 375 Excavator	-	-	1.280	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
160H Motor Grader with ripper	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	-	12.534	-	-	-	-	-
Road Grader with Ripper 160H	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Drill Rig	-	-	-	-	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal								
Embankment Placement Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9R Dozer	-	-	2.280	-	-	-	-	-
CAT D11 Dozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	-	0.943	-	-	-	-	-
Excavator 375L	-	-	1.280	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	-	12.534	-	-	-	-	-
Belly Dump Truck C12 Engine	-	-	1.876	-	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	2.892	-	-	-	-	-
Water Truck	-	-	2.507	-	-	-	-	-
Subtotal								
Shell Placement Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9R Dozer	-	-	-	1.434	-	-	-	-
CAT D11 Dozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
Excavator 375L	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	-	-	8.356	-	-	-	-
Belly Dump Truck C12 Engine	-	-	-	1.251	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	-	1.819	-	-	-	-
All terrain 20-T crane	-	-	-	-	-	-	-	-
Water Truck	-	-	-	1.671	-	-	-	-
Subtotal								
Crest Pavement Days								
Belly Dump Truck C12 Engine	-	-	-	0.156	-	-	-	-
Motor Grader 160H	-	-	-	0.102	-	-	-	-
CAT AP-800C Asphalt Paver	-	-	-	0.079	-	-	-	-
CAT BG-650 Windrow Elevator	-	-	-	0.064	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	-	0.227	-	-	-	-
Subtotal								
Spillway Construction Days								
Concrete Transit Mixer	-	-	-	-	-	-	-	-
Concrete Pump Trucks	-	-	-	-	-	-	-	-
All terrain 20-T crane	-	-	-	-	-	-	-	-
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
CAT D350E Articulating Truck	-	-	-	-	-	-	-	-
Front End Loader 966F	-	-	-	-	-	-	-	-
End Dump Trucks	-	-	-	-	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal								
Parapet Wall Construction Days								
All terrain 20-T crane	-	-	-	-	-	-	-	-
Flatbed Truck for Forms movement	-	-	-	-	-	-	-	-
Subtotal								
Annual Total	-	-	42.049	15.160	-	-	-	-

	Annual Emissions (tpy)							
	2007	2008	2009	2010	2011	2012	2013	2014
Stripping Days								
CAT D7G Bulldozer	-	0.003	-	-	-	0.009	0.006	-
CAT D9 Bulldozer	0.032	0.014	-	-	-	-	-	-
CAT D11 Dozer	-	0.028	-	-	-	-	-	-
CAT 657 Scraper	-	0.093	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.046	-	-	-	0.007	0.005	-
CAT D350E Articulated Truck	0.099	0.050	-	-	-	0.008	0.006	-
Quarry Truck 771D	-	-	0.087	-	-	-	-	-
CAT 375 Excavator	0.024	-	0.015	-	-	-	-	-
CAT 160H Motor Grader with ripper	0.023	0.018	0.007	-	-	0.004	-	-
Water Truck	0.048	-	-	-	-	-	-	-
Shell Excavation Days								
CAT D7G Bulldozer	-	0.001	-	-	-	0.016	-	-
CAT D9 Bulldozer	-	0.127	0.155	0.108	-	-	-	-
CAT D11 Bulldozer	-	0.063	0.078	0.054	-	-	-	-
CAT 375 Excavator	-	-	0.035	-	-	-	-	-
CAT 657 Scraper	-	0.940	1.450	1.160	-	-	-	-
160H Motor Grader with ripper	-	0.008	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	0.261	0.783	0.348	-	-	-	-
Road Grader with Ripper 160H	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.034	-	-	-	0.013	-	-
CAT D350E Articulated Truck	-	0.110	0.121	0.097	-	0.014	-	-
Drill Rig	-	0.090	0.190	0.144	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Embankment Placement Days								
CAT D7G Bulldozer	-	0.014	-	-	-	0.016	-	-
CAT D9R Dozer	-	0.084	0.136	0.054	-	-	-	-
CAT D11 Dozer	-	0.035	0.062	0.054	-	-	-	-
CAT 657 Scraper	-	0.232	0.464	0.464	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.064	0.114	0.088	-	0.007	-	-
Excavator 375L	-	-	0.035	-	-	-	-	-
CAT D350E Articulated Truck	-	0.070	0.097	0.097	-	0.007	-	-
Quarry Truck 771D	-	-	0.348	-	-	-	-	-
Belly Dump Truck C12 Engine	-	0.054	0.072	-	-	0.018	-	-
CAT CB-534C Vibratory Compactor	-	0.123	0.172	0.068	-	0.020	-	-
Water Truck	-	0.168	0.302	0.232	-	0.017	-	-
Shell Placement Days								
CAT D7G Bulldozer	-	0.007	-	-	-	0.043	-	-
CAT D9R Dozer	-	0.130	0.073	0.107	-	-	-	-
CAT D11 Dozer	-	0.081	0.073	0.063	-	-	-	-
CAT 657 Scraper	-	0.534	0.545	0.545	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.042	-	-	-	0.035	-	-
Excavator 375L	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	0.046	-	-	-	0.039	-	-
Quarry Truck 771D	-	-	-	0.232	-	-	-	-
Belly Dump Truck C12 Engine	-	-	-	0.048	-	-	-	-
CAT CB-534C Vibratory Compactor	-	0.143	0.092	0.134	-	0.027	-	-
All terrain 20-T crane	-	-	-	-	-	-	-	-
Water Truck	-	0.319	0.273	0.319	-	0.046	-	-
Crest Pavement Days								
Belly Dump Truck C12 Engine	-	0.007	-	0.010	-	0.004	-	-
Motor Grader 160H	-	0.003	-	0.003	-	-	-	-
CAT AP-800C Asphalt Paver	-	0.002	-	0.004	-	0.001	-	-
CAT BG-650 Windrow Elevator	-	0.003	-	0.003	-	0.001	-	-
CAT CB-534C Vibratory Compactor	-	0.010	-	0.011	-	0.004	-	-
Spillway Construction Days								
Concrete Transit Mixer	-	-	-	0.030	0.151	0.079	-	-
Concrete Pump Trucks	-	-	-	0.012	0.060	0.032	-	-
All terrain 20-T crane	-	-	-	0.012	0.058	0.030	-	-
CAT D7G Bulldozer	-	-	-	0.041	0.203	0.106	-	-
CAT 657 Scraper	-	-	-	0.145	0.725	0.380	-	-
CAT CB-534C Vibratory Compactor	-	-	-	0.017	0.085	0.045	-	-
CAT D350E Articulating Truck	-	-	-	0.012	0.060	0.032	-	-
Front End Loader 966F	-	-	-	0.022	0.110	0.058	-	-
End Dump Trucks	-	-	-	0.036	0.181	0.095	-	-
Water Truck	-	-	-	0.029	0.145	0.076	-	-
Parapet Wall Construction Days								
All terrain 20-T crane	-	-	-	-	-	-	-	-
Flatbed Truck for Forms movement	-	-	-	-	-	-	-	-
Annual Total	0.225	4.054	5.777	4.802	1.778	1.290	0.018	-

	Annual Emissions (tpy)							
	2007	2008	2009	2010	2011	2012	2013	2014
BoreDrillRigs	-	0.090	0.190	0.144	-	-	-	-
Cranes	-	-	-	0.012	0.058	0.030	-	-
CrawlerTractors	0.032	0.585	0.577	0.481	0.203	0.190	0.006	-
Excavators	0.024	-	0.084	-	-	-	-	-
Graders	0.023	0.029	0.007	0.003	-	0.004	-	-
OffHighwayTractorsCompactors	-	0.276	0.263	0.230	0.085	0.096	-	-
OffHighwayTrucksWaterTrucks	0.048	0.748	1.792	1.160	0.145	0.140	-	-
OnRoadHaul	0.099	0.337	0.290	0.342	0.453	0.327	0.006	-
Pavers	-	0.002	-	0.004	-	0.001	-	-
PavingEquipment	-	0.003	-	0.003	-	0.001	-	-
RubberTiredLoaders	-	0.185	0.114	0.110	0.110	0.120	0.005	-
Scrapers	-	1.798	2.459	2.314	0.725	0.380	-	-
	0.225	4.054	5.777	4.802	1.778	1.290	0.018	-

		PM10 Daily Emission (lbs/day)							
		2007	2008	2009	2010	2011	2012	2013	2014
	Stripping Days	82	100	0	0	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer	-							
CrawlerTractors	CAT D9 Bulldozer	0.78							
CrawlerTractors	CAT D11 Dozer	-							
Scrapers	CAT 657 Scraper	-							
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-							
OnRoadHaul	CAT D350E Articulated Truck	2.42							
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-							
Excavators	CAT 375 Excavator	0.58							
Graders	CAT 160H Motor Grader with ripper	0.56							
OffHighwayTrucksWaterTrucks	Water Truck	1.16							
	Subtotal	5.50	-	-	-	-	-	-	-
	Shell Excavation Days	0	150	250	200	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer		-	-	-				
CrawlerTractors	CAT D9 Bulldozer		1.40	1.24	1.08				
CrawlerTractors	CAT D11 Bulldozer		0.70	0.62	0.54				
Excavators	CAT 375 Excavator		-	-	-				
Scrapers	CAT 657 Scraper		11.60	11.60	11.60				
Graders	160H Motor Grader with ripper		-	-	-				
OnRoadHaul	CAT D350E Articulated Truck		-	-	-				
OffHighwayTrucksWaterTrucks	Quarry Truck 771D		3.48	3.48	3.48				
Graders	Road Grader with Ripper 160H		-	-	-				
RubberTiredLoaders	CAT 966F Series II Wheel Loader		-	-	-				
OnRoadHaul	CAT D350E Articulated Truck		0.97	0.97	0.97				
BoreDrillRigs	Drill Rig		1.20	1.52	1.44				
OffHighwayTrucksWaterTrucks	Water Truck		-	-	-				
	Subtotal	-	19.35	19.43	19.11	-	-	-	-
	Embankment Placement Days	0	0	0	0	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer								
CrawlerTractors	CAT D9R Dozer								
CrawlerTractors	CAT D11 Dozer								
Scrapers	CAT 657 Scraper								
RubberTiredLoaders	CAT 966F Series II Wheel Loader								
Excavators	Excavator 375L								
OnRoadHaul	CAT D350E Articulated Truck								
OffHighwayTrucksWaterTrucks	Quarry Truck 771D								
OnRoadHaul	Belly Dump Truck C12 Engine								
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor								
OffHighwayTrucksWaterTrucks	Water Truck								
	Subtotal	-	-	-	-	-	-	-	-
	Shell Placement Days	0	0	0	0	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer								
CrawlerTractors	CAT D9R Dozer								
CrawlerTractors	CAT D11 Dozer								
Scrapers	CAT 657 Scraper								
RubberTiredLoaders	CAT 966F Series II Wheel Loader								
Excavators	Excavator 375L								
OnRoadHaul	CAT D350E Articulated Truck								
OffHighwayTrucksWaterTrucks	Quarry Truck 771D								
OnRoadHaul	Belly Dump Truck C12 Engine								
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor								
Cranes	All terrain 20-T crane								
OffHighwayTrucksWaterTrucks	Water Truck								
	Subtotal	-	-	-	-	-	-	-	-
	Crest Pavement Days						3		
OnRoadHaul	Belly Dump Truck C12 Engine						1.21		
Graders	Motor Grader 160H						-		
Pavers	CAT AP-800C Asphalt Paver						0.44		
PavingEquipment	CAT BG-650 Windrow Elevator						0.38		
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor						1.36		
	Subtotal	-	-	-	-	-	3.39	-	-
	Spillway Construction Days	0	0	0	50	250	131	0	0
OnRoadHaul	Concrete Transit Mixer				1.21	1.21	1.21		
OnRoadHaul	Concrete Pump Trucks				0.48	0.48	0.48		
Cranes	All terrain 20-T crane				0.46	0.46	0.46		
CrawlerTractors	CAT D7G Bulldozer				1.62	1.62	1.62		
Scrapers	CAT 657 Scraper				5.80	5.80	5.80		
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor				0.68	0.68	0.68		
OnRoadHaul	CAT D350E Articulating Truck				0.48	0.48	0.48		
RubberTiredLoaders	Front End Loader 966F				0.88	0.88	0.88		
OnRoadHaul	End Dump Trucks				1.45	1.45	1.45		
OffHighwayTrucksWaterTrucks	Water Truck				1.16	1.16	1.16		
	Subtotal	-	-	-	14.22	14.22	14.22	-	-
	Parapet Wall Construction Days	0	0	0	0	0	0	0	0
Cranes	All terrain 20-T crane								
OnRoadHaul	Flatbed Truck for Forms movement								
	Subtotal	-	-	-	-	-	-	-	-
	Maximum Daily	5.5	19.3	19.4	19.1	14.2	14.2	-	-

PM10 Annual Emissions (tpy)								
	2007	2008	2009	2010	2011	2012	2013	2014
Stripping Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9 Bulldozer	0.032	-	-	-	-	-	-	-
CAT D11 Dozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	0.099	-	-	-	-	-	-	-
Quarry Truck 771D	-	-	-	-	-	-	-	-
CAT 375 Excavator	0.024	-	-	-	-	-	-	-
CAT 160H Motor Grader with ripper	0.023	-	-	-	-	-	-	-
Water Truck	0.048	-	-	-	-	-	-	-
Subtotal								
Shell Excavation Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9 Bulldozer	-	0.105	0.155	0.108	-	-	-	-
CAT D11 Bulldozer	-	0.053	0.078	0.054	-	-	-	-
CAT 375 Excavator	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	0.870	1.450	1.160	-	-	-	-
160H Motor Grader with ripper	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	0.261	0.435	0.348	-	-	-	-
Road Grader with Ripper 160H	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	0.072	0.121	0.097	-	-	-	-
Drill Rig	-	0.090	0.190	0.144	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal								
Embankment Placement Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9R Dozer	-	-	-	-	-	-	-	-
CAT D11 Dozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
Excavator 375L	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	-	-	-	-	-	-	-
Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal								
Shell Placement Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9R Dozer	-	-	-	-	-	-	-	-
CAT D11 Dozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
Excavator 375L	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	-	-	-	-	-	-	-
Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
All terrain 20-T crane	-	-	-	-	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal								
Crest Pavement Days								
Belly Dump Truck C12 Engine	-	-	-	-	-	0.002	-	-
Motor Grader 160H	-	-	-	-	-	-	-	-
CAT AP-800C Asphalt Paver	-	-	-	-	-	0.001	-	-
CAT BG-650 Windrow Elevator	-	-	-	-	-	0.001	-	-
CAT CB-534C Vibratory Compactor	-	-	-	-	-	0.002	-	-
Subtotal								
Spillway Construction Days								
Concrete Transit Mixer	-	-	-	0.030	0.151	0.079	-	-
Concrete Pump Trucks	-	-	-	0.012	0.060	0.032	-	-
All terrain 20-T crane	-	-	-	0.012	0.058	0.030	-	-
CAT D7G Bulldozer	-	-	-	0.041	0.203	0.106	-	-
CAT 657 Scraper	-	-	-	0.145	0.725	0.380	-	-
CAT CB-534C Vibratory Compactor	-	-	-	0.017	0.085	0.045	-	-
CAT D350E Articulating Truck	-	-	-	0.012	0.060	0.032	-	-
Front End Loader 966F	-	-	-	0.022	0.110	0.058	-	-
End Dump Trucks	-	-	-	0.036	0.181	0.095	-	-
Water Truck	-	-	-	0.029	0.145	0.076	-	-
Subtotal								
Parapet Wall Construction Days								
All terrain 20-T crane	-	-	-	-	-	-	-	-
Flatbed Truck for Forms movement	-	-	-	-	-	-	-	-
Subtotal								
Annual Total	0.225	1.451	2.428	2.266	1.778	0.937	-	-

		PM10 Daily Emission (lbs/day)							
		2007	2008	2009	2010	2011	2012	2013	2014
	Stripping Days	0	40	0	0	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer		-						
CrawlerTractors	CAT D9 Bulldozer		-						
CrawlerTractors	CAT D11 Dozer		1.40						
Scrapers	CAT 657 Scraper		4.64						
RubberTiredLoaders	CAT 966F Series II Wheel Loader		1.76						
OnRoadHaul	CAT D350E Articulated Truck		1.93						
OffHighwayTrucksWaterTrucks	Quarry Truck 771D		-						
Excavators	CAT 375 Excavator		-						
Graders	CAT 160H Motor Grader with ripper		0.56						
OffHighwayTrucksWaterTrucks	Water Truck		-						
	Subtotal	-	10.29	-	-	-	-	-	-
	Shell Excavation Days	0	30	0	0	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer		-						
CrawlerTractors	CAT D9 Bulldozer		0.70						
CrawlerTractors	CAT D11 Bulldozer		0.70						
Excavators	CAT 375 Excavator		-						
Scrapers	CAT 657 Scraper		4.64						
Graders	160H Motor Grader with ripper		0.56						
OnRoadHaul	CAT D350E Articulated Truck		-						
OffHighwayTrucksWaterTrucks	Quarry Truck 771D		-						
Graders	Road Grader with Ripper 160H		-						
RubberTiredLoaders	CAT 966F Series II Wheel Loader		1.76						
OnRoadHaul	CAT D350E Articulated Truck		1.93						
BoreDrillRigs	Drill Rig		-						
OffHighwayTrucksWaterTrucks	Water Truck		-						
	Subtotal	-	10.29	-	-	-	-	-	-
	Embankment Placement Days	0	100	200	200	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer		-	-	-				
CrawlerTractors	CAT D9R Dozer		0.70	0.62	0.54				
CrawlerTractors	CAT D11 Dozer		0.70	0.62	0.54				
Scrapers	CAT 657 Scraper		4.64	4.64	4.64				
RubberTiredLoaders	CAT 966F Series II Wheel Loader		0.88	0.88	0.88				
Excavators	Excavator 375L		-	-	-				
OnRoadHaul	CAT D350E Articulated Truck		0.97	0.97	0.97				
OffHighwayTrucksWaterTrucks	Quarry Truck 771D		-	-	-				
OnRoadHaul	Belly Dump Truck C12 Engine		-	-	-				
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor		0.88	0.78	0.68				
OffHighwayTrucksWaterTrucks	Water Truck		2.32	2.32	2.32				
	Subtotal	-	11.09	10.83	10.57	-	-	-	-
	Shell Placement Days	0	230	235	235	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer		-	-	-				
CrawlerTractors	CAT D9R Dozer		0.70	0.62	0.54				
CrawlerTractors	CAT D11 Dozer		0.70	0.62	0.54				
Scrapers	CAT 657 Scraper		4.64	4.64	4.64				
RubberTiredLoaders	CAT 966F Series II Wheel Loader		-	-	-				
Excavators	Excavator 375L		-	-	-				
OnRoadHaul	CAT D350E Articulated Truck		-	-	-				
OffHighwayTrucksWaterTrucks	Quarry Truck 771D		-	-	-				
OnRoadHaul	Belly Dump Truck C12 Engine		-	-	-				
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor		0.88	0.78	0.68				
Cranes	All terrain 20-T crane		-	-	-				
OffHighwayTrucksWaterTrucks	Water Truck		2.32	2.32	2.32				
	Subtotal	-	9.24	8.98	8.72	-	-	-	-
	Crest Pavement Days	0	0	0	6	0	0	0	0
OnRoadHaul	Belly Dump Truck C12 Engine				1.21				
Graders	Motor Grader 160H				-				
Pavers	CAT AP-800C Asphalt Paver				0.44				
PavingEquipment	CAT BG-650 Windrow Elevator				0.38				
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor				1.36				
	Subtotal	-	-	-	3.39	-	-	-	-
	Spillway Construction Days	0	0	0	0	0	0	0	0
OnRoadHaul	Concrete Transit Mixer								
OnRoadHaul	Concrete Pump Trucks								
Cranes	All terrain 20-T crane								
CrawlerTractors	CAT D7G Bulldozer								
Scrapers	CAT 657 Scraper								
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor								
OnRoadHaul	CAT D350E Articulating Truck								
RubberTiredLoaders	Front End Loader 966F								
OnRoadHaul	End Dump Trucks								
OffHighwayTrucksWaterTrucks	Water Truck								
	Subtotal	-	-	-	-	-	-	-	-
	Parapet Wall Construction Days	0	0	0	0	0	0	0	0
Cranes	All terrain 20-T crane								
OnRoadHaul	Flatbed Truck for Forms movement								
	Subtotal	-	-	-	-	-	-	-	-
	Maximum Daily	-	11.1	10.8	10.6	-	-	-	-

		PM10 Daily Emission (lbs/day)							
		2007	2008	2009	2010	2011	2012	2013	2014
	Stripping Days	82	164	25	0	0	16	12	0
CrawlerTractors	CAT D7G Bulldozer	-	1.40	-	-	-	1.08	1.08	-
CrawlerTractors	CAT D9 Bulldozer	0.78	2.80	-	-	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	1.40	-	-	-	-	-	-
Scrapers	CAT 657 Scraper	-	4.64	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	4.40	-	-	-	0.88	0.88	-
OnRoadHaul	CAT D350E Articulated Truck	2.42	4.83	-	-	-	0.97	0.97	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	-	6.96	-	-	-	-	-
Excavators	CAT 375 Excavator	0.58	-	1.16	-	-	-	-	-
Graders	CAT 160H Motor Grader with ripper	0.56	2.24	0.56	-	-	0.56	-	-
OffHighwayTrucksWaterTrucks	Water Truck	1.16	-	-	-	-	-	-	-
	Subtotal	5.50	21.71	8.68	-	-	3.49	2.93	-
	Shell Excavation Days	0	198	310	200	0	30	0	0
CrawlerTractors	CAT D7G Bulldozer	-	0.70	-	-	-	1.08	-	-
CrawlerTractors	CAT D9 Bulldozer	-	4.90	1.24	1.08	-	-	-	-
CrawlerTractors	CAT D11 Bulldozer	-	1.40	0.62	0.54	-	-	-	-
Excavators	CAT 375 Excavator	-	-	1.16	-	-	-	-	-
Scrapers	CAT 657 Scraper	-	16.24	11.60	11.60	-	-	-	-
Graders	160H Motor Grader with ripper	-	0.56	-	-	-	-	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	3.48	15.08	3.48	-	-	-	-
Graders	Road Grader with Ripper 160H	-	-	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	3.96	-	-	-	0.88	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	5.32	0.97	0.97	-	0.97	-	-
BoreDrillRigs	Drill Rig	-	1.20	1.52	1.44	-	-	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	-	-	-	-	-	-	-
	Subtotal	-	37.76	32.19	19.11	-	2.93	-	-
	Embankment Placement Days	0	190	320	200	0	30	0	0
CrawlerTractors	CAT D7G Bulldozer	-	1.40	-	-	-	1.08	-	-
CrawlerTractors	CAT D9R Dozer	-	3.50	1.86	0.54	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	0.70	0.62	0.54	-	-	-	-
Scrapers	CAT 657 Scraper	-	4.64	4.64	4.64	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	2.20	1.32	0.88	-	0.44	-	-
Excavators	Excavator 375L	-	-	0.58	-	-	-	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	2.42	0.97	0.97	-	0.48	-	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	-	5.80	-	-	-	-	-
OnRoadHaul	Belly Dump Truck C12 Engine	-	3.62	1.21	-	-	1.21	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	6.16	2.34	0.68	-	1.36	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	5.80	3.48	2.32	-	1.16	-	-
	Subtotal	-	30.44	22.81	10.57	-	5.73	-	-
	Shell Placement Days	0	325	235	315	0	80	0	0
CrawlerTractors	CAT D7G Bulldozer	-	0.70	-	-	-	1.08	-	-
CrawlerTractors	CAT D9R Dozer	-	2.80	0.62	1.62	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	0.70	0.62	0.54	-	-	-	-
Scrapers	CAT 657 Scraper	-	4.64	4.64	4.64	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	2.64	-	-	-	0.88	-	-
Excavators	Excavator 375L	-	-	-	-	-	-	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	2.90	-	-	-	0.97	-	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	-	-	5.80	-	-	-	-
OnRoadHaul	Belly Dump Truck C12 Engine	-	-	-	1.21	-	-	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	3.52	0.78	2.04	-	0.68	-	-
Cranes	All terrain 20-T crane	-	-	-	-	-	-	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	5.52	2.32	3.48	-	1.16	-	-
	Subtotal	-	23.42	8.98	19.33	-	4.77	-	-
	Crest Pavement Days	0	11	0	26	0	6	0	0
OnRoadHaul	Belly Dump Truck C12 Engine	-	3.62	-	2.42	-	2.42	-	-
Graders	Motor Grader 160H	-	1.68	-	0.56	-	-	-	-
Pavers	CAT AP-800C Asphalt Paver	-	1.32	-	0.88	-	0.88	-	-
PavingEquipment	CAT BG-650 Windrow Elevator	-	1.50	-	0.76	-	0.76	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	5.28	-	2.72	-	2.72	-	-
	Subtotal	-	13.40	-	7.34	-	6.78	-	-
	Spillway Construction Days	0	0	0	50	250	131	0	0
OnRoadHaul	Concrete Transit Mixer	-	-	-	1.21	1.21	1.21	-	-
OnRoadHaul	Concrete Pump Trucks	-	-	-	0.48	0.48	0.48	-	-
Cranes	All terrain 20-T crane	-	-	-	0.46	0.46	0.46	-	-
CrawlerTractors	CAT D7G Bulldozer	-	-	-	1.62	1.62	1.62	-	-
Scrapers	CAT 657 Scraper	-	-	-	5.80	5.80	5.80	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	-	-	0.68	0.68	0.68	-	-
OnRoadHaul	CAT D350E Articulating Truck	-	-	-	0.48	0.48	0.48	-	-
RubberTiredLoaders	Front End Loader 966F	-	-	-	0.88	0.88	0.88	-	-
OnRoadHaul	End Dump Trucks	-	-	-	1.45	1.45	1.45	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	-	-	1.16	1.16	1.16	-	-
	Subtotal	-	-	-	14.22	14.22	14.22	-	-
	Parapet Wall Construction Days	0	0	0	0	0	0	0	0
Cranes	All terrain 20-T crane	-	-	-	-	-	-	-	-
OnRoadHaul	Flatbed Truck for Forms movement	-	-	-	-	-	-	-	-
	Subtotal	-	-	-	-	-	-	-	-
	Maximum Daily	5.5	37.8	32.2	19.3	14.2	14.2	2.9	-
		Maximum Daily Emissions (lb/day)							
		2007	2008	2009	2010	2011	2012	2013	2014
	BoreDrillRigs	-	1.200	1.520	1.440	-	-	-	-
	Cranes	-	-	-	-	-	-	-	-
	CrawlerTractors	-	7.000	1.860	1.620	-	1.080	-	-
	Excavators	-	-	1.160	-	-	-	-	-
	Graders	-	0.560	-	-	-	-	-	-
	OffHighwayTractorsCompactors	-	-	-	-	-	-	-	-
	OffHighwayTrucksWaterTrucks	-	3.480	15.080	3.480	-	-	-	-
	OnRoadHaul	-	5.316	0.966	0.966	-	0.966	-	-
	Pavers	-	-	-	-	-	-	-	-
	PavingEquipment	-	-	-	-	-	-	-	-
	RubberTiredLoaders	-	3.960	-	-	-	0.880	-	-
	Scrapers	-	16.240	11.600	11.600	-	-	-	-
		-	37.756	32.186	19.106	-	2.926	-	-

PM10 Annual Emissions (tpy)								
	2007	2008	2009	2010	2011	2012	2013	2014
Stripping Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9 Bulldozer	-	-	-	-	-	-	-	-
CAT D11 Dozer	-	0.028	-	-	-	-	-	-
CAT 657 Scraper	-	0.093	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.035	-	-	-	-	-	-
CAT D350E Articulated Truck	-	0.039	-	-	-	-	-	-
Quarry Truck 771D	-	-	-	-	-	-	-	-
CAT 375 Excavator	-	-	-	-	-	-	-	-
CAT 160H Motor Grader with ripper	-	0.011	-	-	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal								
Shell Excavation Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9 Bulldozer	-	0.011	-	-	-	-	-	-
CAT D11 Bulldozer	-	0.011	-	-	-	-	-	-
CAT 375 Excavator	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	0.070	-	-	-	-	-	-
160H Motor Grader with ripper	-	0.008	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	-	-	-	-	-	-	-
Road Grader with Ripper 160H	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.026	-	-	-	-	-	-
CAT D350E Articulated Truck	-	0.029	-	-	-	-	-	-
Drill Rig	-	-	-	-	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal								
Embankment Placement Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9R Dozer	-	0.035	0.062	0.054	-	-	-	-
CAT D11 Dozer	-	0.035	0.062	0.054	-	-	-	-
CAT 657 Scraper	-	0.232	0.464	0.464	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.044	0.088	0.088	-	-	-	-
Excavator 375L	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	0.048	0.097	0.097	-	-	-	-
Quarry Truck 771D	-	-	-	-	-	-	-	-
Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
CAT CB-534C Vibratory Compactor	-	0.044	0.078	0.068	-	-	-	-
Water Truck	-	0.116	0.232	0.232	-	-	-	-
Subtotal								
Shell Placement Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9R Dozer	-	0.081	0.073	0.063	-	-	-	-
CAT D11 Dozer	-	0.081	0.073	0.063	-	-	-	-
CAT 657 Scraper	-	0.534	0.545	0.545	-	-	-	-
CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
Excavator 375L	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	-	-	-	-	-	-	-
Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
CAT CB-534C Vibratory Compactor	-	0.101	0.092	0.080	-	-	-	-
All terrain 20-T crane	-	-	-	-	-	-	-	-
Water Truck	-	0.267	0.273	0.273	-	-	-	-
Subtotal								
Crest Pavement Days								
Belly Dump Truck C12 Engine	-	-	-	0.004	-	-	-	-
Motor Grader 160H	-	-	-	-	-	-	-	-
CAT AP-800C Asphalt Paver	-	-	-	0.001	-	-	-	-
CAT BG-650 Windrow Elevator	-	-	-	0.001	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	-	0.004	-	-	-	-
Subtotal								
Spillway Construction Days								
Concrete Transit Mixer	-	-	-	-	-	-	-	-
Concrete Pump Trucks	-	-	-	-	-	-	-	-
All terrain 20-T crane	-	-	-	-	-	-	-	-
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
CAT D350E Articulating Truck	-	-	-	-	-	-	-	-
Front End Loader 966F	-	-	-	-	-	-	-	-
End Dump Trucks	-	-	-	-	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal								
Parapet Wall Construction Days								
All terrain 20-T crane	-	-	-	-	-	-	-	-
Flatbed Truck for Forms movement	-	-	-	-	-	-	-	-
Subtotal								
Annual Total	-	1.977	2.138	2.091	-	-	-	-

	NOx	Daily Emission (lbs/day)							
		2007	2008	2009	2010	2011	2012	2013	2014
	Stripping Days	0	0	25	0	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer			-					
CrawlerTractors	CAT D9 Bulldozer			-					
CrawlerTractors	CAT D11 Dozer			-					
Scrapers	CAT 657 Scraper			-					
RubberTiredLoaders	CAT 966F Series II Wheel Loader			-					
OnRoadHaul	CAT D350E Articulated Truck			-					
OffHighwayTrucksWaterTrucks	Quarry Truck 771D			6.96					
Excavators	CAT 375 Excavator			1.16					
Graders	CAT 160H Motor Grader with ripper			0.56					
OffHighwayTrucksWaterTrucks	Water Truck			-					
	Subtotal	-	-	8.68	-	-	-	-	-
	Shell Excavation Days	0	0	60	0	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer			-					
CrawlerTractors	CAT D9 Bulldozer			-					
CrawlerTractors	CAT D11 Bulldozer			-					
Excavators	CAT 375 Excavator			1.16					
Scrapers	CAT 657 Scraper			-					
Graders	160H Motor Grader with ripper			-					
OnRoadHaul	CAT D350E Articulated Truck			-					
OffHighwayTrucksWaterTrucks	Quarry Truck 771D			11.60					
Graders	Road Grader with Ripper 160H			-					
RubberTiredLoaders	CAT 966F Series II Wheel Loader			-					
OnRoadHaul	CAT D350E Articulated Truck			-					
BoreDrillRigs	Drill Rig			-					
OffHighwayTrucksWaterTrucks	Water Truck			-					
	Subtotal	-	-	12.76	-	-	-	-	-
	Embankment Placement Days	0	0	120	0	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer			-					
CrawlerTractors	CAT D9R Dozer			1.24					
CrawlerTractors	CAT D11 Dozer			-					
Scrapers	CAT 657 Scraper			-					
RubberTiredLoaders	CAT 966F Series II Wheel Loader			0.44					
Excavators	Excavator 375L			0.58					
OnRoadHaul	CAT D350E Articulated Truck			-					
OffHighwayTrucksWaterTrucks	Quarry Truck 771D			5.80					
OnRoadHaul	Belly Dump Truck C12 Engine			1.21					
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor			1.56					
OffHighwayTrucksWaterTrucks	Water Truck			1.16					
	Subtotal	-	-	11.99	-	-	-	-	-
	Shell Placement Days	0	0	0	80	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer				-				
CrawlerTractors	CAT D9R Dozer				1.08				
CrawlerTractors	CAT D11 Dozer				-				
Scrapers	CAT 657 Scraper				-				
RubberTiredLoaders	CAT 966F Series II Wheel Loader				-				
Excavators	Excavator 375L				-				
OnRoadHaul	CAT D350E Articulated Truck				-				
OffHighwayTrucksWaterTrucks	Quarry Truck 771D				5.80				
OnRoadHaul	Belly Dump Truck C12 Engine				1.21				
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor				1.36				
Cranes	All terrain 20-T crane				-				
OffHighwayTrucksWaterTrucks	Water Truck				1.16				
	Subtotal	-	-	-	10.61	-	-	-	-
	Crest Pavement Days	0	0	0	10	0	0	0	0
OnRoadHaul	Belly Dump Truck C12 Engine				1.21				
Graders	Motor Grader 160H				0.56				
Pavers	CAT AP-800C Asphalt Paver				0.44				
PavingEquipment	CAT BG-650 Windrow Elevator				0.38				
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor				1.36				
	Subtotal	-	-	-	3.95	-	-	-	-
	Spillway Construction Days	0	0	0	0	0	0	0	0
OnRoadHaul	Concrete Transit Mixer								
OnRoadHaul	Concrete Pump Trucks								
Cranes	All terrain 20-T crane								
CrawlerTractors	CAT D7G Bulldozer								
Scrapers	CAT 657 Scraper								
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor								
OnRoadHaul	CAT D350E Articulating Truck								
RubberTiredLoaders	Front End Loader 966F								
OnRoadHaul	End Dump Trucks								
OffHighwayTrucksWaterTrucks	Water Truck								
	Subtotal	-	-	-	-	-	-	-	-
	Parapet Wall Construction Days	0	0	0	0	0	0	0	0
Cranes	All terrain 20-T crane								
OnRoadHaul	Flatbed Truck for Forms movement								
	Subtotal	-	-	-	-	-	-	-	-
	Maximum Daily	-	-	12.8	10.6	-	-	-	-

PM10 Annual Emissions (tpy)								
	2007	2008	2009	2010	2011	2012	2013	2014
Stripping Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9 Bulldozer	-	-	-	-	-	-	-	-
CAT D11 Dozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	-	0.087	-	-	-	-	-
CAT 375 Excavator	-	-	0.015	-	-	-	-	-
CAT 160H Motor Grader with ripper	-	-	0.007	-	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal								
Shell Excavation Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9 Bulldozer	-	-	-	-	-	-	-	-
CAT D11 Bulldozer	-	-	-	-	-	-	-	-
CAT 375 Excavator	-	-	0.035	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
160H Motor Grader with ripper	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	-	0.348	-	-	-	-	-
Road Grader with Ripper 160H	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Drill Rig	-	-	-	-	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal								
Embankment Placement Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9R Dozer	-	-	0.074	-	-	-	-	-
CAT D11 Dozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	-	0.026	-	-	-	-	-
Excavator 375L	-	-	0.035	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	-	0.348	-	-	-	-	-
Belly Dump Truck C12 Engine	-	-	0.072	-	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	0.094	-	-	-	-	-
Water Truck	-	-	0.070	-	-	-	-	-
Subtotal								
Shell Placement Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9R Dozer	-	-	-	0.043	-	-	-	-
CAT D11 Dozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
Excavator 375L	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	-	-	0.232	-	-	-	-
Belly Dump Truck C12 Engine	-	-	-	0.048	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	-	0.054	-	-	-	-
All terrain 20-T crane	-	-	-	-	-	-	-	-
Water Truck	-	-	-	0.046	-	-	-	-
Subtotal								
Crest Pavement Days								
Belly Dump Truck C12 Engine	-	-	-	0.006	-	-	-	-
Motor Grader 160H	-	-	-	0.003	-	-	-	-
CAT AP-800C Asphalt Paver	-	-	-	0.002	-	-	-	-
CAT BG-650 Windrow Elevator	-	-	-	0.002	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	-	0.007	-	-	-	-
Subtotal								
Spillway Construction Days								
Concrete Transit Mixer	-	-	-	-	-	-	-	-
Concrete Pump Trucks	-	-	-	-	-	-	-	-
All terrain 20-T crane	-	-	-	-	-	-	-	-
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
CAT D350E Articulating Truck	-	-	-	-	-	-	-	-
Front End Loader 966F	-	-	-	-	-	-	-	-
End Dump Trucks	-	-	-	-	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal								
Parapet Wall Construction Days								
All terrain 20-T crane	-	-	-	-	-	-	-	-
Flatbed Truck for Forms movement	-	-	-	-	-	-	-	-
Subtotal								
Annual Total	-	-	1.211	0.444	-	-	-	-

	CO Daily Emission (lbs/day)								
		2007	2008	2009	2010	2011	2012	2013	2014
	Stripping Days	82	164	25	0	0	16	12	0
CrawlerTractors	CAT D7G Bulldozer	-	44.60	-	-	-	47.80	47.80	-
CrawlerTractors	CAT D9 Bulldozer	21.50	111.50	-	-	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	44.60	-	-	-	-	-	-
Scrapers	CAT 657 Scraper	-	247.68	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	230.40	-	-	-	46.08	46.08	-
OnRoadHaul	CAT D350E Articulated Truck	22.38	67.14	-	-	-	8.95	8.95	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	-	367.44	-	-	-	-	-
Excavators	CAT 375 Excavator	31.28	31.28	62.56	-	-	-	-	-
Graders	CAT 160H Motor Grader with ripper	29.96	149.80	29.96	-	-	29.96	-	-
OffHighwayTrucksWaterTrucks	Water Truck	61.24	61.24	-	-	-	-	-	-
	Subtotal	166.36	988.24	459.96	-	-	132.79	102.83	-
	Shell Excavation Days	0	198	310	200	0	30	0	0
CrawlerTractors	CAT D7G Bulldozer	-	22.30	-	-	-	47.80	-	-
CrawlerTractors	CAT D9 Bulldozer	-	156.10	46.20	47.80	-	-	-	-
CrawlerTractors	CAT D11 Bulldozer	-	44.60	23.10	23.90	-	-	-	-
Excavators	CAT 375 Excavator	-	-	62.56	-	-	-	-	-
Scrapers	CAT 657 Scraper	-	866.88	619.20	619.20	-	-	-	-
Graders	160H Motor Grader with ripper	-	29.96	-	-	-	-	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	183.72	796.12	183.72	-	-	-	-
Graders	Road Grader with Ripper 160H	-	-	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	207.36	-	-	-	46.08	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	49.24	8.95	8.95	-	8.95	-	-
BoreDrillRigs	Drill Rig	-	63.88	80.84	76.92	-	-	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	-	-	-	-	-	-	-
	Subtotal	-	1,624.04	1,636.97	960.49	-	102.83	-	-
	Embankment Placement Days	0	190	320	200	0	30	0	0
CrawlerTractors	CAT D7G Bulldozer	-	44.60	-	-	-	47.80	-	-
CrawlerTractors	CAT D9R Dozer	-	111.50	69.30	23.90	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	22.30	23.10	23.90	-	-	-	-
Scrapers	CAT 657 Scraper	-	247.68	247.68	247.68	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	115.20	69.12	46.08	-	23.04	-	-
Excavators	Excavator 375L	-	-	31.28	-	-	-	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	22.38	8.95	8.95	-	4.48	-	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	-	306.20	-	-	-	-	-
OnRoadHaul	Belly Dump Truck C12 Engine	-	33.57	11.19	-	-	11.19	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	197.96	87.90	30.32	-	60.64	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	306.20	183.72	122.48	-	61.24	-	-
	Subtotal	-	1,101.39	1,038.44	503.31	-	208.39	-	-
	Shell Placement Days	0	325	235	315	0	80	0	0
CrawlerTractors	CAT D7G Bulldozer	-	22.30	-	-	-	47.80	-	-
CrawlerTractors	CAT D9R Dozer	-	89.20	23.10	71.70	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	22.30	23.10	23.90	-	-	-	-
Scrapers	CAT 657 Scraper	-	247.68	247.68	247.68	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	138.24	-	-	-	46.08	-	-
Excavators	Excavator 375L	-	-	-	-	-	-	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	26.86	-	-	-	8.95	-	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	-	-	306.20	-	-	-	-
OnRoadHaul	Belly Dump Truck C12 Engine	-	-	-	11.19	-	-	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	113.12	29.30	90.96	-	30.32	-	-
Cranes	All terrain 20-T crane	-	-	-	-	-	-	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	306.20	122.48	183.72	-	61.24	-	-
	Subtotal	-	965.90	445.66	935.35	-	194.39	-	-
	Crest Pavement Days	0	11	0	26	0	6	0	0
OnRoadHaul	Belly Dump Truck C12 Engine	-	33.57	-	22.38	-	22.38	-	-
Graders	Motor Grader 160H	-	89.88	-	29.96	-	-	-	-
Pavers	CAT AP-800C Asphalt Paver	-	69.72	-	46.48	-	46.48	-	-
PavingEquipment	CAT BG-650 Windrow Elevator	-	47.70	-	34.08	-	34.08	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	169.68	-	121.28	-	121.28	-	-
	Subtotal	-	410.55	-	254.18	-	224.22	-	-
	Spillway Construction Days	0	0	0	50	250	131	0	0
OnRoadHaul	Concrete Transit Mixer	-	-	-	11.19	11.19	11.19	-	-
OnRoadHaul	Concrete Pump Trucks	-	-	-	4.48	4.48	4.48	-	-
Cranes	All terrain 20-T crane	-	-	-	24.54	24.54	24.54	-	-
CrawlerTractors	CAT D7G Bulldozer	-	-	-	71.70	71.70	71.70	-	-
Scrapers	CAT 657 Scraper	-	-	-	309.60	309.60	309.60	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	-	-	30.32	30.32	30.32	-	-
OnRoadHaul	CAT D350E Articulating Truck	-	-	-	4.48	4.48	4.48	-	-
RubberTiredLoaders	Front End Loader 966F	-	-	-	46.08	46.08	46.08	-	-
OnRoadHaul	End Dump Trucks	-	-	-	13.43	13.43	13.43	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	-	-	61.24	61.24	61.24	-	-
	Subtotal	-	-	-	577.05	577.05	577.05	-	-
	Parapet Wall Construction Days	0	0	0	0	0	0	0	0
Cranes	All terrain 20-T crane	-	-	-	-	-	-	-	-
OnRoadHaul	Flatbed Truck for Forms movement	-	-	-	-	-	-	-	-
	Subtotal	-	-	-	-	-	-	-	-
	Maximum Daily	166.4	1,624.0	1,637.0	960.5	577.1	577.1	102.8	-

CO	Annual Emissions (tpy)							
	2007	2008	2009	2010	2011	2012	2013	2014
Stripping Days								
CAT D7G Bulldozer	-	0.089	-	-	-	0.382	0.287	-
CAT D9 Bulldozer	0.882	1.561	-	-	-	-	-	-
CAT D11 Dozer	-	0.892	-	-	-	-	-	-
CAT 657 Scraper	-	4.954	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	2.396	-	-	-	0.369	0.276	-
CAT D350E Articulated Truck	0.918	1.585	-	-	-	0.072	0.054	-
Quarry Truck 771D	-	-	4.593	-	-	-	-	-
CAT 375 Excavator	1.282	1.564	0.782	-	-	-	-	-
CAT 160H Motor Grader with ripper	1.228	2.457	0.375	-	-	0.240	-	-
Water Truck	2.511	3.062	-	-	-	-	-	-
Subtotal	6.82	18.56	5.75	-	-	1.06	0.62	-
Shell Excavation Days								
CAT D7G Bulldozer	-	0.022	-	-	-	0.717	-	-
CAT D9 Bulldozer	-	4.036	5.775	4.780	-	-	-	-
CAT D11 Bulldozer	-	2.007	2.888	2.390	-	-	-	-
CAT 375 Excavator	-	-	1.877	-	-	-	-	-
CAT 657 Scraper	-	50.155	77.400	61.920	-	-	-	-
160H Motor Grader with ripper	-	0.449	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	13.779	41.337	18.372	-	-	-	-
Road Grader with Ripper 160H	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	1.774	-	-	-	0.691	-	-
CAT D350E Articulated Truck	-	1.016	1.119	0.895	-	0.134	-	-
Drill Rig	-	4.791	10.105	7.692	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal	-	78.03	140.50	96.05	-	1.54	-	-
Embankment Placement Days								
CAT D7G Bulldozer	-	0.446	-	-	-	0.717	-	-
CAT D9R Dozer	-	2.676	5.082	2.390	-	-	-	-
CAT D11 Dozer	-	1.115	2.310	2.390	-	-	-	-
CAT 657 Scraper	-	12.384	24.768	24.768	-	-	-	-
CAT 966F Series II Wheel Loader	-	3.341	5.990	4.608	-	0.346	-	-
Excavator 375L	-	-	1.877	-	-	-	-	-
CAT D350E Articulated Truck	-	0.649	0.895	0.895	-	0.067	-	-
Quarry Truck 771D	-	-	18.372	-	-	-	-	-
Belly Dump Truck C12 Engine	-	0.504	0.671	-	-	0.168	-	-
CAT CB-534C Vibratory Compactor	-	3.959	6.446	3.032	-	0.910	-	-
Water Truck	-	8.880	15.922	12.248	-	0.919	-	-
Subtotal	-	33.95	82.33	50.33	-	3.13	-	-
Shell Placement Days								
CAT D7G Bulldozer	-	0.223	-	-	-	1.912	-	-
CAT D9R Dozer	-	4.126	2.714	4.720	-	-	-	-
CAT D11 Dozer	-	2.565	2.714	2.808	-	-	-	-
CAT 657 Scraper	-	28.483	29.102	29.102	-	-	-	-
CAT 966F Series II Wheel Loader	-	2.189	-	-	-	1.843	-	-
Excavator 375L	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	0.425	-	-	-	0.358	-	-
Quarry Truck 771D	-	-	-	12.248	-	-	-	-
Belly Dump Truck C12 Engine	-	-	-	0.448	-	-	-	-
CAT CB-534C Vibratory Compactor	-	4.596	3.443	5.988	-	1.213	-	-
All terrain 20-T crane	-	-	-	-	-	-	-	-
Water Truck	-	16.994	14.391	16.841	-	2.450	-	-
Subtotal	-	59.60	52.37	72.16	-	7.78	-	-
Crest Pavement Days								
Belly Dump Truck C12 Engine	-	0.062	-	0.090	-	0.034	-	-
Motor Grader 160H	-	0.165	-	0.150	-	-	-	-
CAT AP-800C Asphalt Paver	-	0.128	-	0.186	-	0.070	-	-
CAT BG-650 Windrow Elevator	-	0.087	-	0.136	-	0.051	-	-
CAT CB-534C Vibratory Compactor	-	0.311	-	0.485	-	0.182	-	-
Subtotal	-	0.75	-	1.05	-	0.34	-	-
Spillway Construction Days								
Concrete Transit Mixer	-	-	-	0.280	1.399	0.733	-	-
Concrete Pump Trucks	-	-	-	0.112	0.560	0.293	-	-
All terrain 20-T crane	-	-	-	0.614	3.068	1.607	-	-
CAT D7G Bulldozer	-	-	-	1.793	8.963	4.696	-	-
CAT 657 Scraper	-	-	-	7.740	38.700	20.279	-	-
CAT CB-534C Vibratory Compactor	-	-	-	0.758	3.790	1.986	-	-
CAT D350E Articulating Truck	-	-	-	0.112	0.560	0.293	-	-
Front End Loader 966F	-	-	-	1.152	5.760	3.018	-	-
End Dump Trucks	-	-	-	0.336	1.679	0.880	-	-
Water Truck	-	-	-	1.531	7.655	4.011	-	-
Subtotal	-	-	-	14.43	72.13	37.80	-	-
Parapet Wall Construction Days								
All terrain 20-T crane	-	-	-	-	-	-	-	-
Flatbed Truck for Forms movement	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-
Annual Total	6.821	190.896	280.949	234.009	72.131	51.640	0.617	-
	Annual Emissions (tpy)							
	2007	2008	2009	2010	2011	2012	2013	2014
BoreDrillRigs	-	4.791	10.105	7.692	-	-	-	-
Cranes	-	-	-	0.614	3.068	1.607	-	-
CrawlerTractors	0.882	19.758	21.483	21.271	8.963	8.425	0.287	-
Excavators	1.282	1.564	4.536	-	-	-	-	-
Graders	1.228	3.071	0.375	0.150	-	0.240	-	-
OffHighwayTractorsCompactors	-	8.866	9.889	10.263	3.790	4.290	-	-
OffHighwayTrucksWaterTrucks	2.511	42.715	94.616	61.240	7.655	7.379	-	-
OnRoadHaul	0.918	4.240	2.686	3.167	4.196	3.032	0.054	-
Pavers	-	0.128	-	0.186	-	0.070	-	-
PavingEquipment	-	0.087	-	0.136	-	0.051	-	-
RubberTiredLoaders	-	9.700	5.990	5.760	5.760	6.267	0.276	-
Scrapers	-	95.976	131.270	123.530	38.700	20.279	-	-
	6.821	190.896	280.949	234.009	72.131	51.640	0.617	-

	ROG	Daily Emission (lbs/day)							
		2007	2008	2009	2010	2011	2012	2013	2014
	Stripping Days	82	164	25	0	0	16	12	0
CrawlerTractors	CAT D7G Bulldozer	-	5.80	-	-	-	5.80	5.80	-
CrawlerTractors	CAT D9 Bulldozer	2.90	11.60	-	-	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	5.80	-	-	-	-	-	-
Scrapers	CAT 657 Scraper	-	11.60	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	29.00	-	-	-	5.80	5.80	-
OnRoadHaul	CAT D350E Articulated Truck	29.00	58.00	-	-	-	11.60	11.60	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	-	17.40	-	-	-	-	-
Excavators	CAT 375 Excavator	2.90	-	5.80	-	-	-	-	-
Graders	CAT 160H Motor Grader with ripper	2.90	11.60	2.90	-	-	2.90	-	-
OffHighwayTrucksWaterTrucks	Water Truck	2.90	-	-	-	-	-	-	-
	Subtotal	40.60	133.40	26.10	-	-	26.10	23.20	-
	Shell Excavation Days	0	198	310	200	0	30	0	0
CrawlerTractors	CAT D7G Bulldozer	-	2.90	-	-	-	5.80	-	-
CrawlerTractors	CAT D9 Bulldozer	-	20.30	5.80	5.80	-	-	-	-
CrawlerTractors	CAT D11 Bulldozer	-	5.80	2.90	2.90	-	-	-	-
Excavators	CAT 375 Excavator	-	-	5.80	-	-	-	-	-
Scrapers	CAT 657 Scraper	-	40.60	29.00	29.00	-	-	-	-
Graders	160H Motor Grader with ripper	-	2.90	-	-	-	-	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	8.70	37.70	8.70	-	-	-	-
Graders	Road Grader with Ripper 160H	-	-	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	26.10	-	-	-	5.80	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	63.80	11.60	11.60	-	11.60	-	-
BoreDrillRigs	Drill Rig	-	5.80	5.80	5.80	-	-	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	-	-	-	-	-	-	-
	Subtotal	-	176.90	98.60	63.80	-	23.20	-	-
	Embankment Placement Days	0	190	320	200	0	30	0	0
CrawlerTractors	CAT D7G Bulldozer	-	5.80	-	-	-	5.80	-	-
CrawlerTractors	CAT D9R Dozer	-	14.50	8.70	2.90	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	2.90	2.90	2.90	-	-	-	-
Scrapers	CAT 657 Scraper	-	11.60	11.60	11.60	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	14.50	8.70	5.80	-	2.90	-	-
Excavators	Excavator 375L	-	-	2.90	-	-	-	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	29.00	11.60	11.60	-	5.80	-	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	-	14.50	-	-	-	-	-
OnRoadHaul	Belly Dump Truck C12 Engine	-	43.50	14.50	-	-	14.50	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	20.30	8.70	2.90	-	5.80	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	14.50	8.70	5.80	-	2.90	-	-
	Subtotal	-	156.60	92.80	43.50	-	37.70	-	-
	Shell Placement Days	0	325	235	315	0	80	0	0
CrawlerTractors	CAT D7G Bulldozer	-	2.90	-	-	-	5.80	-	-
CrawlerTractors	CAT D9R Dozer	-	11.60	2.90	8.70	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	2.90	2.90	2.90	-	-	-	-
Scrapers	CAT 657 Scraper	-	11.60	11.60	11.60	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	17.40	-	-	-	5.80	-	-
Excavators	Excavator 375L	-	-	-	-	-	-	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	34.80	-	-	-	11.60	-	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	-	-	14.50	-	-	-	-
OnRoadHaul	Belly Dump Truck C12 Engine	-	-	-	14.50	-	-	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	11.60	2.90	8.70	-	2.90	-	-
Cranes	All terrain 20-T crane	-	-	-	-	-	-	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	14.50	5.80	8.70	-	2.90	-	-
	Subtotal	-	107.30	26.10	69.60	-	29.00	-	-
	Crest Pavement Days	0	11	0	26	0	6	0	0
OnRoadHaul	Belly Dump Truck C12 Engine	-	7.58	-	5.05	-	5.05	-	-
Graders	Motor Grader 160H	-	1.52	-	0.51	-	-	-	-
Pavers	CAT AP-800C Asphalt Paver	-	1.52	-	1.01	-	1.01	-	-
PavingEquipment	CAT BG-650 Windrow Elevator	-	1.52	-	1.01	-	1.01	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	3.03	-	2.02	-	2.02	-	-
	Subtotal	-	15.16	-	9.60	-	9.10	-	-
	Spillway Construction Days	0	0	0	50	250	131	0	0
OnRoadHaul	Concrete Transit Mixer	-	-	-	2.53	2.53	2.53	-	-
OnRoadHaul	Concrete Pump Trucks	-	-	-	1.01	1.01	1.01	-	-
Cranes	All terrain 20-T crane	-	-	-	0.51	0.51	0.51	-	-
CrawlerTractors	CAT D7G Bulldozer	-	-	-	1.52	1.52	1.52	-	-
Scrapers	CAT 657 Scraper	-	-	-	2.53	2.53	2.53	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	-	-	0.51	0.51	0.51	-	-
OnRoadHaul	CAT D350E Articulating Truck	-	-	-	1.01	1.01	1.01	-	-
RubberTiredLoaders	Front End Loader 966F	-	-	-	1.01	1.01	1.01	-	-
OnRoadHaul	End Dump Trucks	-	-	-	3.03	3.03	3.03	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	-	-	0.51	0.51	0.51	-	-
	Subtotal	-	-	-	14.15	14.15	14.15	-	-
	Parapet Wall Construction Days	0	0	0	0	0	0	0	0
Cranes	All terrain 20-T crane	-	-	-	-	-	-	-	-
OnRoadHaul	Flatbed Truck for Forms movement	-	-	-	-	-	-	-	-
	Subtotal	-	-	-	-	-	-	-	-
	Maximum Daily	40.6	176.9	98.6	69.6	14.1	37.7	23.2	-

	Annual Emissions (tpy)							
	2007	2008	2009	2010	2011	2012	2013	2014
Stripping Days	0	0	0	0	0	0	0	0
CAT D7G Bulldozer	-	0.012	-	-	-	0.046	0.035	-
CAT D9 Bulldozer	0.119	0.058	-	-	-	-	-	-
CAT D11 Dozer	-	0.116	-	-	-	-	-	-
CAT 657 Scraper	-	0.232	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.302	-	-	-	0.046	0.035	-
CAT D350E Articulated Truck	1.189	0.603	-	-	-	0.093	0.070	-
Quarry Truck 771D	-	-	0.218	-	-	-	-	-
CAT 375 Excavator	0.119	-	0.073	-	-	-	-	-
CAT 160H Motor Grader with ripper	0.119	0.093	0.036	-	-	0.023	-	-
Water Truck	0.119	-	-	-	-	-	-	-
Shell Excavation Days	0	0	0	0	0	0	0	0
CAT D7G Bulldozer	-	0.003	-	-	-	0.087	-	-
CAT D9 Bulldozer	-	0.525	0.725	0.580	-	-	-	-
CAT D11 Bulldozer	-	0.261	0.363	0.290	-	-	-	-
CAT 375 Excavator	-	-	0.174	-	-	-	-	-
CAT 657 Scraper	-	2.349	3.625	2.900	-	-	-	-
160H Motor Grader with ripper	-	0.044	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	0.653	1.958	0.870	-	-	-	-
Road Grader with Ripper 160H	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.223	-	-	-	0.087	-	-
CAT D350E Articulated Truck	-	1.317	1.450	1.160	-	0.174	-	-
Drill Rig	-	0.435	0.725	0.580	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Embankment Placement Days	0	0	0	0	0	0	0	0
CAT D7G Bulldozer	-	0.058	-	-	-	0.087	-	-
CAT D9R Dozer	-	0.348	0.638	0.290	-	-	-	-
CAT D11 Dozer	-	0.145	0.290	0.290	-	-	-	-
CAT 657 Scraper	-	0.580	1.160	1.160	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.421	0.754	0.580	-	0.044	-	-
Excavator 375L	-	-	0.174	-	-	-	-	-
CAT D350E Articulated Truck	-	0.841	1.160	1.160	-	0.087	-	-
Quarry Truck 771D	-	-	0.870	-	-	-	-	-
Belly Dump Truck C12 Engine	-	0.653	0.870	-	-	0.218	-	-
CAT CB-534C Vibratory Compactor	-	0.406	0.638	0.290	-	0.087	-	-
Water Truck	-	0.421	0.754	0.580	-	0.044	-	-
Shell Placement Days	0	0	0	0	0	0	0	0
CAT D7G Bulldozer	-	0.029	-	-	-	0.232	-	-
CAT D9R Dozer	-	0.537	0.341	0.573	-	-	-	-
CAT D11 Dozer	-	0.334	0.341	0.341	-	-	-	-
CAT 657 Scraper	-	1.334	1.363	1.363	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.276	-	-	-	0.232	-	-
Excavator 375L	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	0.551	-	-	-	0.464	-	-
Quarry Truck 771D	-	-	-	0.580	-	-	-	-
Belly Dump Truck C12 Engine	-	-	-	0.580	-	-	-	-
CAT CB-534C Vibratory Compactor	-	0.471	0.341	0.573	-	0.116	-	-
All terrain 20-T crane	-	-	-	-	-	-	-	-
Water Truck	-	0.805	0.682	0.798	-	0.116	-	-
Crest Pavement Days	0	0	0	0	0	0	0	0
Belly Dump Truck C12 Engine	-	0.014	-	0.020	-	0.008	-	-
Motor Grader 160H	-	0.003	-	0.003	-	-	-	-
CAT AP-800C Asphalt Paver	-	0.003	-	0.004	-	0.002	-	-
CAT BG-650 Windrow Elevator	-	0.003	-	0.004	-	0.002	-	-
CAT CB-534C Vibratory Compactor	-	0.006	-	0.008	-	0.003	-	-
Spillway Construction Days	0	0	0	0	0	0	0	0
Concrete Transit Mixer	-	-	-	0.063	0.316	0.165	-	-
Concrete Pump Trucks	-	-	-	0.025	0.126	0.066	-	-
All terrain 20-T crane	-	-	-	0.013	0.063	0.033	-	-
CAT D7G Bulldozer	-	-	-	0.038	0.189	0.099	-	-
CAT 657 Scraper	-	-	-	0.063	0.316	0.165	-	-
CAT CB-534C Vibratory Compactor	-	-	-	0.013	0.063	0.033	-	-
CAT D350E Articulating Truck	-	-	-	0.025	0.126	0.066	-	-
Front End Loader 966F	-	-	-	0.025	0.126	0.066	-	-
End Dump Trucks	-	-	-	0.076	0.379	0.199	-	-
Water Truck	-	-	-	0.013	0.063	0.033	-	-
Parapet Wall Construction Days	0	0	0	0	0	0	0	0
All terrain 20-T crane	-	-	-	-	-	-	-	-
Flatbed Truck for Forms movement	-	-	-	-	-	-	-	-
	1.665	15.459	19.720	15.929	1.769	3.223	0.139	-
	Annual Emissions (tpy)							
	2007	2008	2009	2010	2011	2012	2013	2014
BoreDrillRigs	-	0.435	0.725	0.580	-	-	-	-
Cranes	-	-	-	0.013	0.063	0.033	-	-
CrawlerTractors	0.119	2.424	2.697	2.401	0.189	0.552	0.035	-
Excavators	0.119	-	0.421	-	-	-	-	-
Graders	0.119	0.139	0.036	0.003	-	0.023	-	-
OffHighwayTractorsCompactors	-	0.883	0.979	0.883	0.063	0.239	-	-
OffHighwayTrucksWaterTrucks	0.119	1.878	4.481	2.840	0.063	0.193	-	-
OnRoadHaul	1.189	3.978	3.480	3.110	0.947	1.539	0.070	-
Pavers	-	0.003	-	0.004	-	0.002	-	-
PavingEquipment	-	0.003	-	0.004	-	0.002	-	-
RubberTiredLoaders	-	1.221	0.754	0.605	0.126	0.475	0.035	-
Scrapers	-	4.495	6.148	5.486	0.316	0.165	-	-
	1.665	15.459	19.720	15.929	1.769	3.223	0.139	-
Mitigated Total	1.332	12.367	15.776	12.743	1.415	2.578	0.111	-

		PM2.5 Daily Emission (lbs/day)							
		2007	2008	2009	2010	2011	2012	2013	2014
	Stripping Days	82	164	25	0	0	16	12	0
CrawlerTractors	CAT D7G Bulldozer	-	1.29	-	-	-	0.99	0.99	-
CrawlerTractors	CAT D9 Bulldozer	0.72	3.22	-	-	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	1.29	-	-	-	-	-	-
Scrapers	CAT 657 Scraper	-	4.27	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	4.05	-	-	-	0.81	0.81	-
OnRoadHaul	CAT D350E Articulated Truck	2.09	6.26	-	-	-	0.83	0.83	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	-	6.40	-	-	-	-	-
Excavators	CAT 375 Excavator	0.53	0.53	1.07	-	-	-	-	-
Graders	CAT 160H Motor Grader with ripper	0.52	2.58	0.52	-	-	0.52	-	-
OffHighwayTrucksWaterTrucks	Water Truck	1.07	1.07	-	-	-	-	-	-
	Subtotal	4.92	24.55	7.99	-	-	3.15	2.64	-
	Shell Excavation Days	0	198	310	200	0	30	0	0
CrawlerTractors	CAT D7G Bulldozer	-	0.64	-	-	-	0.99	-	-
CrawlerTractors	CAT D9 Bulldozer	-	4.51	1.14	0.99	-	-	-	-
CrawlerTractors	CAT D11 Bulldozer	-	1.29	0.57	0.50	-	-	-	-
Excavators	CAT 375 Excavator	-	-	1.07	-	-	-	-	-
Scrapers	CAT 657 Scraper	-	14.94	10.67	10.67	-	-	-	-
Graders	160H Motor Grader with ripper	-	0.52	-	-	-	-	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	3.20	13.87	3.20	-	-	-	-
Graders	Road Grader with Ripper 160H	-	-	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	3.64	-	-	-	0.81	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	4.59	0.83	0.83	-	0.83	-	-
BoreDrillRigs	Drill Rig	-	1.10	1.40	1.32	-	-	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	-	-	-	-	-	-	-
	Subtotal	-	34.43	29.56	17.52	-	2.64	-	-
	Embankment Placement Days	0	190	320	200	0	30	0	0
CrawlerTractors	CAT D7G Bulldozer	-	1.29	-	-	-	0.99	-	-
CrawlerTractors	CAT D9R Dozer	-	3.22	1.71	0.50	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	0.64	0.57	0.50	-	-	-	-
Scrapers	CAT 657 Scraper	-	4.27	4.27	4.27	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	2.02	1.21	0.81	-	0.40	-	-
Excavators	Excavator 375L	-	-	0.53	-	-	-	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	2.09	0.83	0.83	-	0.42	-	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	-	5.34	-	-	-	-	-
OnRoadHaul	Belly Dump Truck C12 Engine	-	3.13	1.04	-	-	1.04	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	5.67	2.15	0.63	-	1.25	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	5.34	3.20	2.13	-	1.07	-	-
	Subtotal	-	27.66	20.87	9.67	-	5.18	-	-
	Shell Placement Days	0	325	235	315	0	80	0	0
CrawlerTractors	CAT D7G Bulldozer	-	0.64	-	-	-	0.99	-	-
CrawlerTractors	CAT D9R Dozer	-	2.58	0.57	1.49	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	0.64	0.57	0.50	-	-	-	-
Scrapers	CAT 657 Scraper	-	4.27	4.27	4.27	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	2.43	-	-	-	0.81	-	-
Excavators	Excavator 375L	-	-	-	-	-	-	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	2.50	-	-	-	0.83	-	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	-	-	5.34	-	-	-	-
OnRoadHaul	Belly Dump Truck C12 Engine	-	-	-	1.04	-	-	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	3.24	0.72	1.88	-	0.63	-	-
Cranes	All terrain 20-T crane	-	-	-	-	-	-	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	5.34	2.13	3.20	-	1.07	-	-
	Subtotal	-	21.64	8.26	17.71	-	4.33	-	-
	Crest Pavement Days	0	11	0	26	0	6	0	0
OnRoadHaul	Belly Dump Truck C12 Engine	-	3.13	-	2.09	-	2.09	-	-
Graders	Motor Grader 160H	-	1.55	-	0.52	-	-	-	-
Pavers	CAT AP-800C Asphalt Paver	-	1.21	-	0.81	-	0.81	-	-
PavingEquipment	CAT BG-650 Windrow Elevator	-	1.38	-	0.70	-	0.70	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	4.86	-	2.50	-	2.50	-	-
	Subtotal	-	12.13	-	6.61	-	6.10	-	-
	Spillway Construction Days	0	0	0	50	250	131	0	0
OnRoadHaul	Concrete Transit Mixer	-	-	-	1.04	1.04	1.04	-	-
OnRoadHaul	Concrete Pump Trucks	-	-	-	0.42	0.42	0.42	-	-
Cranes	All terrain 20-T crane	-	-	-	0.42	0.42	0.42	-	-
CrawlerTractors	CAT D7G Bulldozer	-	-	-	1.49	1.49	1.49	-	-
Scrapers	CAT 657 Scraper	-	-	-	5.34	5.34	5.34	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	-	-	0.63	0.63	0.63	-	-
OnRoadHaul	CAT D350E Articulating Truck	-	-	-	0.42	0.42	0.42	-	-
RubberTiredLoaders	Front End Loader 966F	-	-	-	0.81	0.81	0.81	-	-
OnRoadHaul	End Dump Trucks	-	-	-	1.25	1.25	1.25	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	-	-	1.07	1.07	1.07	-	-
	Subtotal	-	-	-	12.88	12.88	12.88	-	-
	Parapet Wall Construction Days	0	0	0	0	0	0	0	0
Cranes	All terrain 20-T crane	-	-	-	-	-	-	-	-
OnRoadHaul	Flatbed Truck for Forms movement	-	-	-	-	-	-	-	-
	Subtotal	-	-	-	-	-	-	-	-
	Maximum Daily	4.9	34.4	29.6	17.7	12.9	12.9	2.6	-

	Annual Emissions (tpy)							
	2007	2008	2009	2010	2011	2012	2013	2014
Stripping Days								
CAT D7G Bulldozer	-	0.003	-	-	-	0.008	0.006	-
CAT D9 Bulldozer	0.029	0.045	-	-	-	-	-	-
CAT D11 Dozer	-	0.026	-	-	-	-	-	-
CAT 657 Scraper	-	0.085	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.042	-	-	-	0.006	0.005	-
CAT D350E Articulated Truck	0.086	0.148	-	-	-	0.007	0.005	-
Quarry Truck 771D	-	-	0.080	-	-	-	-	-
CAT 375 Excavator	0.022	0.027	0.013	-	-	-	-	-
CAT 160H Motor Grader with ripper	0.021	0.042	0.006	-	-	0.004	-	-
Water Truck	0.044	0.053	-	-	-	-	-	-
Subtotal								
Shell Excavation Days								
CAT D7G Bulldozer	-	0.001	-	-	-	0.015	-	-
CAT D9 Bulldozer	-	0.117	0.143	0.099	-	-	-	-
CAT D11 Bulldozer	-	0.058	0.071	0.050	-	-	-	-
CAT 375 Excavator	-	-	0.032	-	-	-	-	-
CAT 657 Scraper	-	0.864	1.334	1.067	-	-	-	-
160H Motor Grader with ripper	-	0.008	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	0.240	0.720	0.320	-	-	-	-
Road Grader with Ripper 160H	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.031	-	-	-	0.012	-	-
CAT D350E Articulated Truck	-	0.095	0.104	0.083	-	0.013	-	-
Drill Rig	-	0.083	0.175	0.132	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal								
Embankment Placement Days								
CAT D7G Bulldozer	-	0.013	-	-	-	0.015	-	-
CAT D9R Dozer	-	0.077	0.125	0.050	-	-	-	-
CAT D11 Dozer	-	0.032	0.057	0.050	-	-	-	-
CAT 657 Scraper	-	0.213	0.427	0.427	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.059	0.105	0.081	-	0.006	-	-
Excavator 375L	-	-	0.032	-	-	-	-	-
CAT D350E Articulated Truck	-	0.060	0.083	0.083	-	0.006	-	-
Quarry Truck 771D	-	-	0.320	-	-	-	-	-
Belly Dump Truck C12 Engine	-	0.047	0.063	-	-	0.016	-	-
CAT CB-534C Vibratory Compactor	-	0.113	0.158	0.063	-	0.019	-	-
Water Truck	-	0.155	0.277	0.213	-	0.016	-	-
Subtotal								
Shell Placement Days								
CAT D7G Bulldozer	-	0.006	-	-	-	0.040	-	-
CAT D9R Dozer	-	0.119	0.067	0.098	-	-	-	-
CAT D11 Dozer	-	0.074	0.067	0.058	-	-	-	-
CAT 657 Scraper	-	0.491	0.502	0.502	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.038	-	-	-	0.032	-	-
Excavator 375L	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	0.040	-	-	-	0.033	-	-
Quarry Truck 771D	-	-	-	0.213	-	-	-	-
Belly Dump Truck C12 Engine	-	-	-	0.042	-	-	-	-
CAT CB-534C Vibratory Compactor	-	0.132	0.084	0.124	-	0.025	-	-
All terrain 20-T crane	-	-	-	-	-	-	-	-
Water Truck	-	0.296	0.251	0.293	-	0.043	-	-
Subtotal								
Crest Pavement Days								
Belly Dump Truck C12 Engine	-	0.006	-	0.008	-	0.003	-	-
Motor Grader 160H	-	0.003	-	0.003	-	-	-	-
CAT AP-800C Asphalt Paver	-	0.002	-	0.003	-	0.001	-	-
CAT BG-650 Windrow Elevator	-	0.003	-	0.003	-	0.001	-	-
CAT CB-534C Vibratory Compactor	-	0.009	-	0.010	-	0.004	-	-
Subtotal								
Spillway Construction Days								
Concrete Transit Mixer	-	-	-	0.026	0.130	0.068	-	-
Concrete Pump Trucks	-	-	-	0.010	0.052	0.027	-	-
All terrain 20-T crane	-	-	-	0.011	0.053	0.028	-	-
CAT D7G Bulldozer	-	-	-	0.037	0.186	0.098	-	-
CAT 657 Scraper	-	-	-	0.133	0.667	0.350	-	-
CAT CB-534C Vibratory Compactor	-	-	-	0.016	0.078	0.041	-	-
CAT D350E Articulating Truck	-	-	-	0.010	0.052	0.027	-	-
Front End Loader 966F	-	-	-	0.020	0.101	0.053	-	-
End Dump Trucks	-	-	-	0.031	0.156	0.082	-	-
Water Truck	-	-	-	0.027	0.133	0.070	-	-
Subtotal								
Parapet Wall Construction Days								
All terrain 20-T crane	-	-	-	-	-	-	-	-
Flatbed Truck for Forms movement	-	-	-	-	-	-	-	-
Subtotal								
Maximum Daily	0.202	3.955	5.298	4.398	1.610	1.168	0.016	-

	Annual Emissions (tpy)							
	2007	2008	2009	2010	2011	2012	2013	2014
BoreDrillRigs	-	0.083	0.175	0.132	-	-	-	-
Cranes	-	-	-	0.011	0.053	0.028	-	-
CrawlerTractors	0.029	0.571	0.530	0.442	0.186	0.175	0.006	-
Excavators	0.022	0.027	0.077	-	-	-	-	-
Graders	0.021	0.053	0.006	0.003	-	0.004	-	-
OffHighwayTractorsCompactors	-	0.254	0.242	0.212	0.078	0.089	-	-
OffHighwayTrucksWaterTrucks	0.044	0.744	1.649	1.067	0.133	0.129	-	-
OnRoadHaul	0.086	0.395	0.250	0.295	0.391	0.282	0.005	-
Pavers	-	0.002	-	0.003	-	0.001	-	-
PavingEquipment	-	0.003	-	0.003	-	0.001	-	-
RubberTiredLoaders	-	0.170	0.105	0.101	0.101	0.110	0.005	-
Scrapers	-	1.654	2.262	2.129	0.667	0.350	-	-
	0.202	3.955	5.298	4.398	1.610	1.168	0.016	-

			Unmitigated Daily Emissions (lbs/day)					Mitigated Daily			
Schedule	No. of Years	days		Total PM10	Exhaust PM10	Dust PM10	Total PM2.5	Total PM10	Exhaust PM10	Dust PM10	Total PM2.5
na	0	0	Auxiliary Spillway Excavation								
2009-2011	3	720	Auxiliary Fuseplug Spillway Construction	549.02	0.68	548.34	114.11	82.26	0.01	82.25	17.10
na	0	0	Tunnel Excavation	0	0	0	0.00	0	0	0	0.00
na	0	0	Tunnel Construction	0	0	0	0.00	0	0	0	0.00
2007-2013	7	720	Main Dam Construction	8.19	0.00	8.19	1.70	1.23	0.00	1.23	0.26
na	0	0	Dike 1	0	0	0	0.00	0	0	0	0.00
na	0	0	Dike 2	0	0	0	0.00	0	0	0	0.00
na	0	0	Dike 3	0	0	0	0.00	0	0	0	0.00
na	0	0	Mooney Ridge	0	0	0	0.00	0	0	0	0.00
2013	1	20	Dike 4	459.61	0.64	458.97	95.53	68.52	0.01	68.51	14.24
2008	1	180	Dike 5	193.03	0.73	192.30	40.12	28.71	0.01	28.70	5.97
2008	1	65	Dike 6	222.17	0.73	221.44	46.18	33.06	0.01	33.05	6.87
2009-2010	2	580	RWD	163.55	0.68	162.87	33.99	24.45	0.02	24.43	5.08
2012	1	240	LWD	122.06	0.64	121.42	25.37	18.13	0.01	18.12	3.77
na	0	0	Dike 7	0	0	0	0.00	0	0	0	0.00
na	0	0	Dike 8	0	0	0	0.00	0	0	0	0.000
2008-2010	3	360	MIAD	762.18	0.74	761.44	158.42	113.68	0.02	113.66	23.63
				Unmitigated lbs/day				Mitigated lbs/day			
			2007	8.19	0	8.19	1.70	1.2285	0	1.2285	0.26
			2008	1185.57	2.20	1183.37	246.42	176.68	0.04	176.64	36.72
			2009	1482.94	2.10	1480.84	308.23	221.62	0.05	221.57	46.06
			2010	1482.94	2.10	1480.84	308.23	221.62	0.05	221.57	46.06
			2011	557.21	0.68	556.53	115.81	83.49	0.01	83.48	17.35
			2012	130.25	0.64	129.61	27.07	19.36	0.01	19.35	4.02
			2013	467.80	0.64	467.16	97.23	69.75	0.01	69.74	14.50
			2014	0	0	0	0.00	0	0	0	0.00
			Unmitigated Annual Emissions (tons/year)					Mitigated Annual			
Schedule	No. of Years	days		Total PM10	Exhaust PM10	Dust PM10		Total PM10	Exhaust PM10	Dust PM10	
na	0	0	Auxiliary Spillway Excavation	0	0	0	0.00	0	0	0	0.00
2009-2011	3	720	Auxiliary Fuseplug Spillway Construction	65.88	0.08	65.80	13.69	9.87	0.00	9.87	2.05
na	0	0	Tunnel Excavation	0	0	0	0.00	0	0	0	0.00
na	0	0	Tunnel Construction	0	0	0	0.00	0	0	0	0.00
2007-2013	7	720	Main Dam Construction	0.42	0.00	0.42	0.09	0.06	0.00	0.06	0.01
na	0	0	Dike 1	0	0	0	0.00	0	0	0	0.00
na	0	0	Dike 2	0	0	0	0.00	0	0	0	0.00
na	0	0	Dike 3	0	0	0	0.00	0	0	0	0.00
na	0	0	Mooney Ridge	0	0	0	0.00	0	0	0	0.00
2013	1	20	Dike 4	4.60	0.01	4.59	0.96	0.69	0.00	0.69	0.14
2008	1	180	Dike 5	17.37	0.07	17.31	3.61	2.58	0.00	2.58	0.54
2008	1	65	Dike 6	7.22	0.02	7.20	1.50	1.07	0.00	1.07	0.22
2009-2010	2	580	RWD	23.71	0.10	23.62	4.93	3.55	0.00	3.54	0.74
2012	1	240	LWD	14.65	0.08	14.57	3.04	2.18	0.00	2.17	0.45
na	0	0	Dike 7	0	0	0	0.00	0	0	0	0.00
na	0	0	Dike 8	0	0	0	0.00	0	0	0	0.00
2008-2010	3	360	MIAD	45.73	0.04	45.69	9.51	6.82	0.00	6.82	1.42
				Unmitigated t/y				Mitigated t/y			
			2007	0.4212	0	0.4212	0.09	0.0632	0	0.0632	0.01
			2008	70.75	0.13	70.61	14.70	10.54	0.00	10.54	2.19
			2009	135.75	0.22	135.52	28.22	20.30	0.01	20.30	4.22
			2010	135.75	0.22	135.52	28.22	20.30	0.01	20.30	4.22
			2011	66.30	0.08	66.22	13.78	9.93	0.00	9.93	2.06
			2012	15.07	0.08	14.99	3.13	2.24	0.00	2.24	0.47
			2013	5.02	0.01	5.01	1.04	0.75	0.00	0.75	0.16
			2014	0	0	0	0.00	0	0	0	0.00

	PM10		PM2.5		
	Uncontrolled	Controlled	Uncontrolled	Controlled	
Max Daily (lbs/day)	2339	165	1576	111	
Annual (t/y)	309	22	208	15	
CARB Profile No. 343 (Cement Prod./Concrete Batching)					
PM10	0.92				
PM2.5	0.62				
Source:					
..\Construction\On-site Equipment\PMSIZE_09_26_02.xls					

Table 11.12-2 (English Units)
Emission Factors for Concrete Batching a

Source (SCC)	Uncontrolled				Controlled			
	Total PM	Emission Factor Rating	Total PM10	Emission Factor Rating	Total PM	Emission Factor Rating	Total PM10	EmissionFactor Rating
Aggregate transfer [b](3-05-011-04, 21,23)	0.0069	D	0.0033	D	ND		ND	
Sand transfer [b] (3-05-011-05,22,24)	0.0021	D	0.00099	D	ND		ND	
Cement unloading to elevated storage silo (pneumatic)[c] (3-05-011-07)	0.72	E	0.46	E	0.00099	D	0.00034	D
Cement supplement unloading to elevated storage silo (pneumatic)[d] (3-05-011-17)	3.14	E	1.10	E	0.0089	D	0.0049	E
Weigh hopper loading [e] (3-05-011-08)	0.0051	D	0.0024	D	ND		ND	
Mixer loading (central mix)[f] (3-05-011-09)	0.524 or Eqn 11.	B	0.156 or Eq	B	0.0184 or Eqn	B	0.0055 or E	B
Truck loading (truck mix)[g] (3-05-011-10)	1.122 or Eqn 11.	B	0.311 or Eq	B	0.0981 or Eqn	B	0.0263 or E	B
Vehicle traffic (paved roads)	See AP-42 Section 13.2.1							
Vehicle traffic (unpaved roads)	See AP-42 Section 13.2.2							
Wind erosion from aggregate and sand storage piles	See AP-42 Section 13.2.5							

ND = No data

a All emission factors are in lb of pollutant per ton of material loaded unless noted otherwise. Loaded material includes course aggregate, sand, cement, cement supplement and the surface moisture associated with these materials. The average material composition of concrete batches presented in references 9 and 10 was 1865 lbs course aggregate, 1428 lbs sand, 491 lbs cement and 73 lbs cement supplement. Approximately 20 gallons of water was added to this solid material to produce 4024 lbs (one cubic yard) of concrete.

b Reference 9 and 10. Emission factors are based upon an equation from AP-42, Section 13.2.2, with kPM-10 =.35, kPM = .74, U = 10mph, Maggregate =1.77%, and Msand = 4.17%. These moisture contents of the materials (Maggregate and Msand) are the averages of the values obtained from Reference 9 and Reference 10.

c The uncontrolled PM & PM-10 emission factors were developed from Reference 9. The controlled emission factor for PM was developed from References 9, 10, 11, and 12. The controlled emission factor for PM-10 was developed from References 9 and 10.

d The controlled PM emission factor was developed from Reference 10 and Reference 12, whereas the controlled PM-10 emission factor was developed from only Reference 10.

e Emission factors were developed by using the Aggregate and Sand Transfer Emission Factors in conjunction with the ratio of aggregate and sand used in an average yard3 of concrete. The unit for these emission factors is lb of pollutant per ton of aggregate and sand.
f References 9, 10, and 14. The general factor is the arithmetic mean of all test data.
g Reference 9, 10, and 14. The general factor is the arithmetic mean of all test data. .

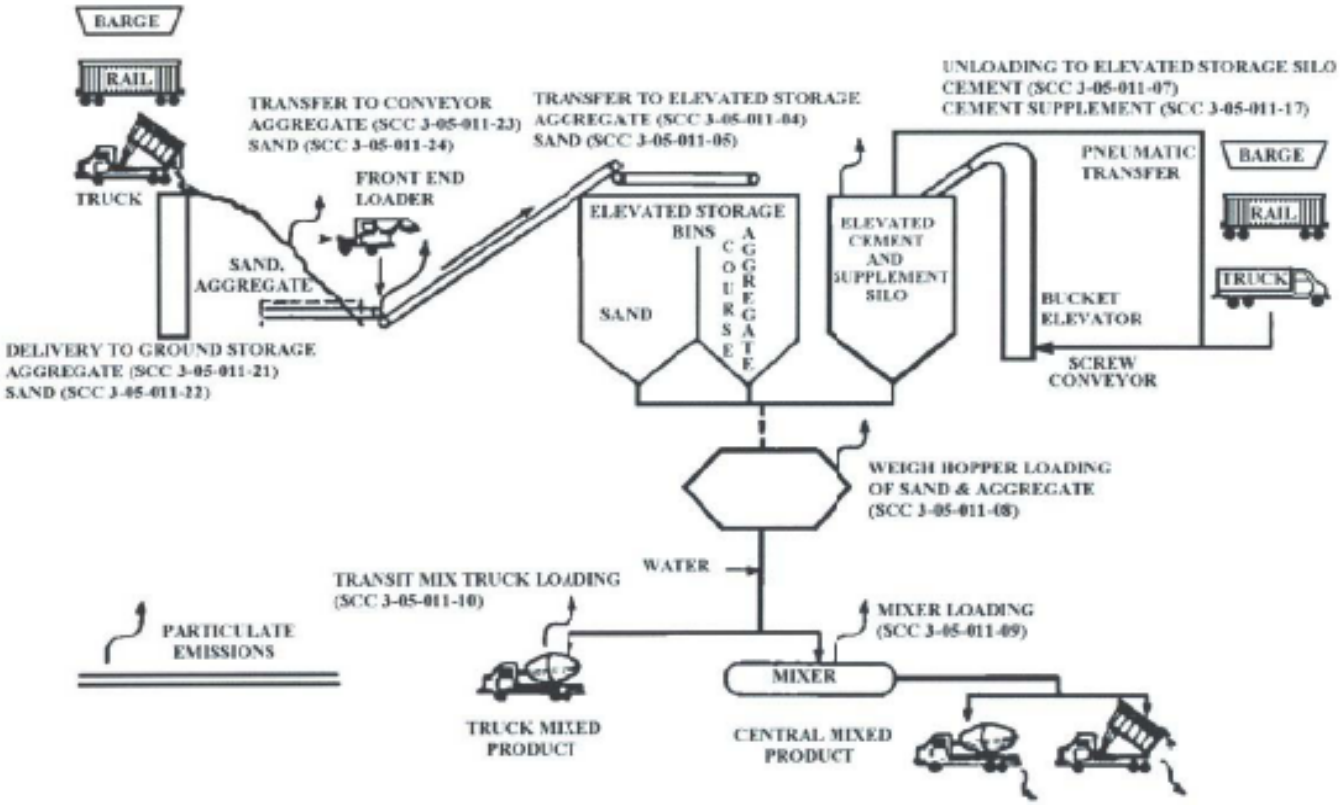


Figure 11.12-1. Typical Concrete Batching Process.

Source (SCC)	Uncontrolled Efs -Total PM10 (lb/ton cement)	Controlled Efs -Total PM10 (lb/ton cement)	Uncontrolled PM-10 Emissions (lbs/day)	Controlled PM-10 Emissions (lbs/day)
Aggregate transfer [b](3-05-011-04, 21,23)	0.0033	0.0033	1.47	1.47
Sand transfer [b] (3-05-011-05,22,24)	0.00099	0.00099	0.18	0.18
Cement unloading to elevated storage silo (pneumatic)[c] (3-05-011-07)	0.46	0.00034	27.77	0.02
Cement supplement unloading to elevated storage silo (pneumatic)[d] (3-05-011-17)	1.10	0.0049	66.40	0.30
Weigh hopper loading [e] (3-05-011-08)	0.0024	0.0024	11.47	11.47
Mixer loading (central mix)[f] (3-05-011-09)	0.156	0.0055	745.54	26.29
Truck loading (truck mix)[g] (3-05-011-10)	0.311	0.0263	1486.30	125.69
Total			2339	165

Plant Info

Material processing rate per site 300 cu yd/day max allowed per day as said by Reclaimation
Total number of sites 1

AP-42 Concrete Composition

	weight/unit		fraction	Daily Rate (t/d)
Course Aggregate	1865	lb	0.46	280
Sand	1428	lb	0.35	214
Cement	491	lb	0.12	74
Cement Supplement	73	lb	0.02	11
SubTotal	3857			
Water	167			
Total	4024			
Concrete Density	4024	pcy		

CDM Recommended Concrete

		CDM recommended fraction	
Course Aggregate		0.6	445
Sand		0.3	181
Cement		0.1	60
Total	4779		
Concrete Density	4946 pcy		

	Uncontrolled-Emissions (lb/day)		Controlled-Emissions (lb/day)		Uncontrolled-Emissions (tpy)		Controlled-Emissions (tpy)	
	PM-10	PM-2.5	PM-10	PM-2.5	PM-10	PM-2.5	PM-10	PM-2.5
Total	136.98	11.09	13.61	1.17	18.08	1.46	1.80	0.15

The following emission factors were downloaded from AP-42 , and used in emission calculations of PM10 for material processing and screening. The highlighted area includes the applicable source/process names and corresponding emission factors.

Table 11.19.2-2 (English Units). EMISSION FACTORS FOR CRUSHED STONE PROCESSING OPERATIONS (lb/Ton)[a]

Source [b]	Total Particulate Matter [r,s]	EMISSION FACTOR RATING	Total PM-10	EMISSION FACTOR RATING	Total PM-2.5	EMISSION FACTOR RATING	
Primary Crushing (SCC 3-05-020-01)	ND		ND[n]		ND[n]		
Primary Crushing (controlled) (SCC 3-05-020-01)	ND		ND[n]		ND[n]		
Secondary Crushing (SCC 3-05-020-02)	ND		ND[n]		ND[n]		
Secondary Crushing (controlled) (SCC 3-05-020-02)	ND		ND[n]		ND[n]		
Tertiary Crushing (SCC 3-050030-03)	0.0054[d]	E	0.0024[o]	C	ND[n]	<---------	0.000444
Tertiary Crushing (controlled) (SCC 3-05-020-03)	0.0012[d]	E	0.00054[p]	C	0.00010[q]	E	
Fines Crushing (SCC 3-05-020-05)	0.0390[e]	E	0.0150[e]	E	ND	<---------	0.000875
Fines Crushing (controlled) (SCC 3-05-020-05)	0.0030[f]	E	0.0012[f]	E	0.000070[q]	E	
Screening (SCC 3-05-020-02, 03)	0.025[c]	E	0.0087[l]	C	ND	<---------	0.000588
Screening (controlled) (SCC 3-05-020-02, 03)	0.0022[d]	E	0.00074[m]	C	0.000050[q]	E	
Fines Screening (SCC 3-05-020-21)	0.30g	E	0.072[g]	E	ND		
Fines Screening (controlled) (SCC 3-05-020-21)	0.0036[g]	E	0.0022[g]	E	ND		
Conveyor Transfer Point (SCC 3-05-020-06)	0.0030[h]	E	0.00110[h]	D	ND	<---------	0.000311
Conveyor Transfer Point (controlled) (SCC 3-05-020-06)	0.00014[i]	E	4.6×10^{-5}[i]	D	1.3×10^{-5}[q]	E	
Wet Drilling - Unfragmented Stone (SCC 3-05-020-10)	ND		8.0×10^{-5}[j]	E	ND		
Truck Unloading -Fragmented Stone (SCC 3-05-020-31)	ND		1.6×10^{-5}[j]	E	ND		
Truck Unloading - Conveyor, crushed stone (SCC 3-05-020-32)	ND		0.00010[k]	E	ND		

a. Emission factors represent uncontrolled emissions unless noted. Emission factors in lb/Ton of material of throughput. SCC = Source Classification Code. ND = No data.

b. Controlled sources (with wet suppression) are those that are part of the processing plant that employs current wet suppression technology similar to the study group. The moisture content of the study group without wet suppression systems operating (uncontrolled) ranged from 0.21 to 1.3 percent, and the same facilities operating wet suppression systems (controlled) ranged from 0.55 to 2.88 percent. Due to carry over of the small amount of moisture required, it has been shown that each source, with the exception of crushers, does not need to employ direct water sprays. Although the moisture content was the only variable measured, other process features may have as much influence on emissions from a given source. Visual observations from each source under normal operating conditions are probably the best indicator of which emission factor is most appropriate. Plants that employ substandard control measures as indicated by visual observations should use the uncontrolled factor with an appropriate control efficiency that best reflects the effectiveness of the controls employed.

c. References 1, 3, 7, and 8

d. References 3, 7, and 8

This diagram shows the material handling processes, including crushing and screening processes, which is downloaded from AP-42 11.19.2 Crushed Stone Processing and Pulverized Mineral Processing

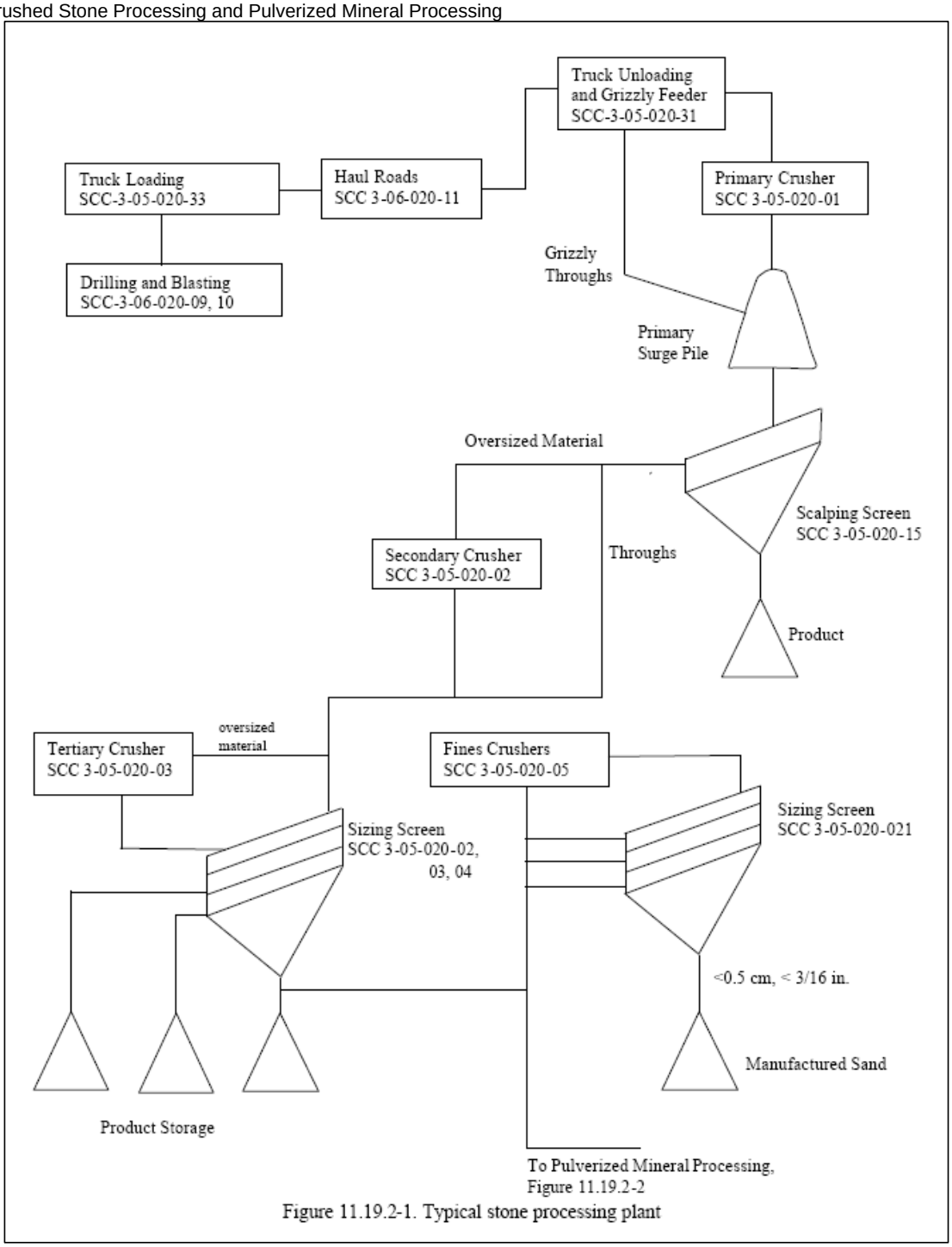


Figure 11.19.2-1. Typical stone processing plant

Material processing rate per site 5000 ton/day

On-site Material Processing & Screening one site

Source	Uncontrolled-EF (lb/ton)		Controlled-EF (lb/ton)		Uncontrolled-Emissions (lb/day)		Controlled-Emissions (lb/day)		Uncontrolled-Emissions (tpy)		Controlled-Emissions (tpy)	
	PM-10	PM-2.5	PM-10	PM-2.5	PM-10	PM-2.5	PM-10	PM-2.5	PM-10	PM-2.5	PM-10	PM-2.5
Tertiary Crushing	0.0024	0.00044	0.00054	0.00010	12.00	2.22	2.70	0.50	1.58	0.29	0.36	0.07
Fines Crushing	0.015	0.00088	0.00120	0.00007	75.00	4.38	6.00	0.35	9.90	0.58	0.79	0.05
Screening	0.0087	0.00059	0.00074	0.00005	43.50	2.94	3.70	0.25	5.74	0.39	0.49	0.03
Conveyor Transfer Point	0.0011	0.00031	0.00005	0.00001	5.50	1.55	0.23	0.07	0.73	0.21	0.03	0.01
Wet Drilling - Unfragmented Stone	8.00E-05	0	8.00E-05	0	0.40	0.00	0.40	0.00	0.05	0.00	0.05	0.00
Truck Unloading -Fragmented Stone	1.60E-05	0	1.60E-05	0	0.08	0.00	0.08	0.00	0.01	0.00	0.01	0.00
Truck Unloading - Conveyor, crushed	0.0001	0	0.0001	0	0.50	0.00	0.50	0.00	0.07	0.00	0.07	0.00
Total					136.98	11.09	13.61	1.17	18.08	1.46	1.80	0.15

		100 sq ft/blast				
Auxillary(acre)	sq ft	total blasts	ef (lb/blast)	work day	emission rates (lb/day)	rate (g/s/m2)
39.4	1716264	17163	2.7	780	59.4	2.81773E-06

http://www.sonoma-county.org/prmd/docs/eir/bluerockdeir/apdx-h.pdf#search='estimating%20PM10%20from%20rock%20blasting'

Blasting

Blasting is used in the quarrying process to break up or open areas of rock for extraction. PM10 emissions are generated during the blast. Much of the particulate matter generated from blasting is larger sized particulate matter, which settles out quickly near the blast area. However, a portion of the particulate matter that becomes airborne is PM10 and may remain airborne for a period of time. During the baseline period there were an average of 15 blasts per year. Under the proposed project it is expected that blasting would occur an average of 30 to 40 times per year.

PM10 emissions from blasting were estimated assuming 15 blasts per year for baseline conditions and 40 blasts per year for the project. The emission factor for blasting uses the equation for blasting contained in the Sonoma County Aggregate Resources Management Plan and Environmental Impact Report (EIP Associates, 1994). The PM10 emission factor (lb/blast) depends on the area of the blast, the depth of the blast, and the material moisture content. The blast area was assumed to be 100 square feet with a depth of 40 feet, and a material moisture content of 2 percent. The resulting emission factor for PM10 is 2.7 pounds of PM10 blast occurrence.

Bl

NOx	Daily Emission (lbs/day)							
	2007	2008	2009	2010	2011	2012	2013	2014
Stripping Days	82	164	25	0	0	16	12	0
Subtotal	146.30	579.90	251.04	-	-	95.19	78.83	-
Shell Excavation Days	0	198	310	200	0	30	0	0
Subtotal	-	1,042.60	929.70	556.16	-	78.83	-	-
Embankment Placement Days	0	190	320	200	0	30	0	0
Subtotal	-	792.68	632.27	299.04	-	154.82	-	-
Shell Placement Days	0	325	235	315	0	80	0	0
Subtotal	-	630.70	251.70	545.74	-	115.22	-	-
Crest Pavement Days	0	11	0	26	0	6	0	0
Subtotal	-	337.58	-	197.47	-	181.12	-	-
Spillway Construction Days	0	0	0	50	250	131	0	0
Subtotal	-	-	-	389.67	389.67	389.67	-	-
Parapet Wall Construction Days	0	0	0	0	0	0	0	0
Subtotal	-	-	-	-	-	-	-	-
Maximum Daily	146.3	1,042.6	929.7	556.2	389.7	389.7	78.8	-

	Annual Emissions (tpy)							
	2007	2008	2009	2010	2011	2012	2013	2014
Stripping Days	0	0	0	0	0	0	0	0
Subtotal	6.00	6.86	3.14	-	-	0.76	0.47	-
Shell Excavation Days	0	0	0	0	0	0	0	0
Subtotal	-	46.43	81.22	55.62	-	1.18	-	-
Embankment Placement Days	0	0	0	0	0	0	0	0
Subtotal	-	22.55	50.01	29.90	-	2.32	-	-
Shell Placement Days	0	0	0	0	0	0	0	0
Subtotal	-	35.49	29.57	41.12	-	4.61	-	-
Crest Pavement Days	0	0	0	0	0	0	0	0
Subtotal	-	0.62	-	0.81	-	0.27	-	-
Spillway Construction Days	0	0	0	0	0	0	0	0
Subtotal	-	-	-	9.74	48.71	25.52	-	-
Parapet Wall Construction Days	0	0	0	0	0	0	0	0
Subtotal	-	-	-	-	-	-	-	-
Annual Total (Mitigated)	5.998	111.957	163.939	137.186	48.708	34.670	0.473	-

Alternative 3 Data and Results

Alternative 3 - Unmitigated Emissions Summary

Emissions of ROG (lbs/day)									
	2007	2008	2009	2010	2011	2012	2013	2014	PEAK
Construction Equipment	89.30	287.30	175.56	172.26	172.26	172.26	0.00	0.00	287.30
Onsite Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Batching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Subtotal	*89.30*	*287.30*	*175.56*	*172.26*	*172.26*	*172.26*	*0.00*	*0.00*	*287.30*
Offsite Haul Trucks	0.00	15.83	17.23	19.27	9.14	4.36	21.58	0.00	21.58
Worker Trips	0.43	2.42	1.89	1.47	1.40	1.33	1.73	0.00	2.42
Offsite Subtotal	*0.43*	*18.26*	*19.12*	*20.73*	*10.54*	*5.69*	*23.32*	*0.00*	*23.32*
Total	**89.73**	**305.56**	**194.68**	**192.99**	**182.80**	**177.95**	**23.32**	**0.00**	**305.56**
Emissions of CO (lbs/day)									
	2007	2008	2009	2010	2011	2012	2013	2014	PEAK
Construction Equipment	756.38	2420.44	1485.38	1462.08	1462.08	1462.08	0.00	0.00	2420.44
Onsite Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Batching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Subtotal	*756.38*	*2420.44*	*1485.38*	*1462.08*	*1462.08*	*1462.08*	*0.00*	*0.00*	*2420.44*
Offsite Haul Trucks	0.00	58.70	63.86	71.43	33.88	16.17	80.02	0.00	80.02
Worker Trips	14.54	82.72	64.54	50.00	47.72	45.45	59.09	0.00	82.72
Offsite Subtotal	*14.54*	*141.42*	*128.40*	*121.43*	*81.60*	*61.62*	*139.10*	*0.00*	*141.42*
Total	**770.92**	**2561.86**	**1613.78**	**1583.51**	**1543.68**	**1523.70**	**139.10**	**0.00**	**2561.86**
Emissions of NOx (lbs/day)									
	2007	2008	2009	2010	2011	2012	2013	2014	PEAK
Construction Equipment	522.52	1699.96	1050.52	1004.36	1004.36	1004.36	0.00	0.00	1699.96
Onsite Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Batching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Subtotal	*522.52*	*1699.96*	*1050.52*	*1004.36*	*1004.36*	*1004.36*	*0.00*	*0.00*	*1699.96*
Offsite Haul Trucks	0.00	261.10	284.08	317.74	150.69	71.91	355.92	0.00	355.92
Worker Trips	1.41	8.01	6.25	4.84	4.62	4.40	5.72	0.00	8.01
Offsite Subtotal	*1.41*	*269.11*	*290.33*	*322.59*	*155.31*	*76.31*	*361.64*	*0.00*	*361.64*
Total	**523.93**	**1969.07**	**1340.85**	**1326.95**	**1159.67**	**1080.67**	**361.64**	**0.00**	**1969.07**
Emissions of PM_{10} (lbs/day)									
	2007	2008	2009	2010	2011	2012	2013	2014	PEAK
Construction Equipment	10.92	40.98	21.70	32.48	32.48	32.48	0.00	0.00	40.98
Onsite Fugitive Dust	346.97	360.76	926.05	925.37	715.04	147.91	153.44	0.00	926.05
Concrete Batching	165.41	165.41	165.41	165.41	165.41	165.41	165.41	0.00	165.41
Crushing/Processing	27.22	27.22	27.22	27.22	27.22	27.22	27.22	0.00	27.22
Onsite Subtotal	*550.52*	*594.37*	*1140.38*	*1150.48*	*940.15*	*373.02*	*346.07*	*0.00*	*1150.48*
Offsite Haul Trucks	0.00	57.22	62.26	69.64	33.02	15.76	78.00	0.00	78.00
Worker Trips	2.39	13.60	10.61	8.22	7.84	7.47	9.71	0.00	13.60
Offsite Subtotal	*2.39*	*70.82*	*72.87*	*77.86*	*40.87*	*23.23*	*87.72*	*0.00*	*87.72*
Total	**552.91**	**665.19**	**1213.25**	**1228.34**	**981.02**	**396.25**	**433.79**	**0.00**	**1228.34**
Emissions of $PM_{2.5}$ (lbs/day)									
	2007	2008	2009	2010	2011	2012	2013	2014	PEAK
Construction Equipment	10.05	37.70	19.96	29.88	29.88	29.88	0.00	0.00	37.70
Onsite Fugitive Dust	71.98	74.53	192.42	192.35	148.64	30.37	31.35	0.00	192.42
Concrete Batching	111.47	111.47	111.47	111.47	111.47	111.47	111.47	0.00	111.47
Crushing/Processing	2.33	2.33	2.33	2.33	2.33	2.33	2.33	0.00	2.33
Onsite Subtotal	*195.83*	*226.04*	*326.19*	*336.04*	*292.33*	*174.05*	*145.15*	*0.00*	*336.04*
Offsite Haul Trucks	0.00	14.98	16.30	18.23	8.65	4.13	20.42	0.00	20.42
Worker Trips	0.45	2.55	1.99	1.54	1.47	1.40	1.82	0.00	2.55
Offsite Subtotal	*0.45*	*17.53*	*18.29*	*19.77*	*10.12*	*5.53*	*22.24*	*0.00*	*22.24*
Total	**196.28**	**243.57**	**344.47**	**355.81**	**302.44**	**179.58**	**167.39**	**0.00**	**355.81**

Notes:
Concrete Batching and Materials Processing (Crushing) are assume to be controlled for permitting, controls are part of project design.
Concrete Batching and Materials Processing (Crushing) are assume to begin in 4th Quarter of 2007; one (1) Batch Plant and two (2) Processing Facilities assumed to operate during project construction.
Offsite Haul Trucks and Worker Trips includes paved road dust in PM10 and PM2.5 emission factors.

Alternative 3 - Unmitigated Emissions Summary

Emissions of ROG (tons/year)									
	2007	2008	2009	2010	2011	2012	2013	2014	Peak Yr
Construction Equipment	3.66	18.76	18.39	32.30	28.73	21.73	0.00	0.00	32.30
Onsite Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Batching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Subtotal	*3.66*	*18.76*	*18.39*	*32.30*	*28.73*	*21.73*	*0.00*	*0.00*	*32.30*
Offsite Haul Trucks	0.00	0.04	0.39	0.38	0.45	0.01	0.07	0.00	0.45
Worker Trips	0.06	0.13	0.21	0.16	0.20	0.02	0.12	0.00	0.21
Offsite Subtotal	*0.06*	*0.17*	*0.60*	*0.53*	*0.66*	*0.03*	*0.18*	*0.00*	*0.66*
Total	**3.72**	**18.93**	**18.99**	**32.84**	**29.39**	**21.76**	**0.18**	**0.00**	**32.84**

Emissions of CO (tons/year)									
	2007	2008	2009	2010	2011	2012	2013	2014	Peak Yr
Construction Equipment	31.01	158.47	155.76	274.27	243.75	184.43	0.00	0.00	274.27
Onsite Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Batching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Subtotal	*31.01*	*158.47*	*155.76*	*274.27*	*243.75*	*184.43*	*0.00*	*0.00*	*274.27*
Offsite Haul Trucks	0.00	0.15	1.45	1.39	1.69	0.04	0.25	0.16	1.69
Worker Trips	1.89	4.39	7.21	5.32	6.95	0.77	3.99	0.00	7.21
Offsite Subtotal	*1.89*	*4.54*	*8.66*	*6.71*	*8.64*	*0.81*	*4.24*	*0.16*	*8.66*
Total	**32.90**	**163.00**	**164.41**	**280.98**	**252.39**	**185.24**	**4.24**	**0.16**	**280.98**

Emissions of NOx (tons/year)									
	2007	2008	2009	2010	2011	2012	2013	2014	Peak Yr
Construction Equipment	21.42	111.57	110.20	190.23	167.74	126.73	0.00	0.00	190.23
Onsite Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Batching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Subtotal	*21.42*	*111.57*	*110.20*	*190.23*	*167.74*	*126.73*	*0.00*	*0.00*	*190.23*
Offsite Haul Trucks	0.00	0.65	6.44	6.19	7.50	0.17	1.10	0.00	7.50
Worker Trips	0.18	0.43	0.70	0.51	0.67	0.07	0.39	0.00	0.70
Offsite Subtotal	*0.18*	*1.08*	*7.14*	*6.71*	*8.17*	*0.24*	*1.49*	*0.00*	*8.17*
Total	**21.61**	**112.65**	**117.34**	**196.94**	**175.91**	**126.97**	**1.49**	**0.00**	**196.94**

Emissions of PM_{10} (tons/year)									
	2007	2008	2009	2010	2011	2012	2013	2014	Peak Yr
Construction Equipment	0.45	2.45	1.95	4.91	5.25	4.06	0.00	0.00	5.25
Onsite Fugitive Dust	13.94	44.06	112.56	103.87	86.44	18.11	18.08	0.00	112.56
Concrete Batching	5.46	21.83	21.83	21.83	21.83	21.83	21.83	0.00	21.83
Crushing/Processing	0.90	3.59	3.59	3.59	3.59	3.59	3.59	0.00	3.59
Onsite Subtotal	*20.74*	*71.94*	*139.94*	*134.21*	*117.11*	*47.60*	*43.51*	*0.00*	*139.94*
Offsite Haul Trucks	0.00	0.14	1.41	1.36	1.64	0.04	0.24	0.00	1.64
Worker Trips	0.31	0.72	1.18	0.87	1.14	0.13	0.66	0.00	1.18
Offsite Subtotal	*0.31*	*0.87*	*2.60*	*2.23*	*2.79*	*0.16*	*0.90*	*0.00*	*2.79*
Total	**21.05**	**72.80**	**142.54**	**136.44**	**119.90**	**47.76**	**44.41**	**0.00**	**142.54**

Emissions of $PM_{2.5}$ (tons/year)									
	2007	2008	2009	2010	2011	2012	2013	2014	Peak Yr
Construction Equipment	0.41	2.25	1.80	4.52	4.83	3.74	0.00	0.00	4.83
Onsite Fugitive Dust	2.89	9.14	23.40	21.60	17.98	3.76	3.74	0.00	23.40
Concrete Batching	3.68	14.71	14.71	14.71	14.71	14.71	14.71	0.00	14.71
Crushing/Processing	0.08	0.31	0.31	0.31	0.31	0.31	0.31	0.00	0.31
Onsite Subtotal	*7.05*	*26.41*	*40.22*	*41.14*	*37.83*	*22.51*	*18.76*	*0.00*	*41.14*
Offsite Haul Trucks	0.00	0.04	0.37	0.36	0.43	0.01	0.06	0.00	0.43
Worker Trips	0.06	0.14	0.22	0.16	0.21	0.02	0.12	0.00	0.22
Offsite Subtotal	*0.06*	*0.17*	*0.59*	*0.52*	*0.64*	*0.03*	*0.19*	*0.00*	*0.64*
Total	**7.11**	**26.59**	**40.81**	**41.66**	**38.47**	**22.55**	**18.95**	**0.00**	**41.66**

Notes:
Concrete Batching and Materials Processing (Crushing) are assume to be controlled for permitting, controls are part of project design.
Concrete Batching and Materials Processing (Crushing) are assume to begin in 4th Quarter of 2007; one (1) Batch Plant and two (2) Processing Facilities assumed to operate during project construction.
Offsite Haul Trucks and Worker Trips includes paved road dust in PM10 and PM2.5 emission factors.

Alternative 3 - Mitigated Emissions Summary

Emissions of ROG (lbs/day)									
	2007	2008	2009	2010	2011	2012	2013	2014	PEAK
Construction Equipment	89.30	287.30	175.56	172.26	172.26	172.26	0.00	0.00	287.30
Onsite Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Batching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Subtotal	*89.30*	*287.30*	*175.56*	*172.26*	*172.26*	*172.26*	*0.00*	*0.00*	*287.30*
Offsite Haul Trucks	0.00	15.83	17.23	19.27	9.14	4.36	21.58	0.00	21.58
Worker Trips	0.43	2.42	1.89	1.47	1.40	1.33	1.73	0.00	2.42
Offsite Subtotal	*0.43*	*18.26*	*19.12*	*20.73*	*10.54*	*5.69*	*23.32*	*0.00*	*23.32*
Total	**89.73**	**305.56**	**194.68**	**192.99**	**182.80**	**177.95**	**23.32**	**0.00**	**305.56**
Emissions of CO (lbs/day)									
	2007	2008	2009	2010	2011	2012	2013	2014	PEAK
Construction Equipment	756.38	2420.44	1485.38	1462.08	1462.08	1462.08	0.00	0.00	2420.44
Onsite Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Batching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Subtotal	*756.38*	*2420.44*	*1485.38*	*1462.08*	*1462.08*	*1462.08*	*0.00*	*0.00*	*2420.44*
Offsite Haul Trucks	0.00	58.70	63.86	71.43	33.88	16.17	80.02	0.00	80.02
Worker Trips	14.54	82.72	64.54	50.00	47.72	45.45	59.09	0.00	82.72
Offsite Subtotal	*14.54*	*141.42*	*128.40*	*121.43*	*81.60*	*61.62*	*139.10*	*0.00*	*141.42*
Total	**770.92**	**2561.86**	**1613.78**	**1583.51**	**1543.68**	**1523.70**	**139.10**	**0.00**	**2561.86**
Emissions of NOx (lbs/day)									
	2007	2008	2009	2010	2011	2012	2013	2014	PEAK
Construction Equipment	418.02	1359.97	840.42	803.49	803.49	803.49	0.00	0.00	1359.97
Onsite Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Batching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Subtotal	*418.02*	*1359.97*	*840.42*	*803.49*	*803.49*	*803.49*	*0.00*	*0.00*	*1359.97*
Offsite Haul Trucks	0.00	261.10	284.08	317.74	150.69	71.91	355.92	0.00	355.92
Worker Trips	1.41	8.01	6.25	4.84	4.62	4.40	5.72	0.00	8.01
Offsite Subtotal	*1.41*	*269.11*	*290.33*	*322.59*	*155.31*	*76.31*	*361.64*	*0.00*	*361.64*
Total	**419.42**	**1629.08**	**1130.74**	**1126.07**	**958.80**	**879.80**	**361.64**	**0.00**	**1629.08**
Emissions of PM_{10} (lbs/day)									
	2007	2008	2009	2010	2011	2012	2013	2014	PEAK
Construction Equipment	10.92	40.98	21.70	32.48	32.48	32.48	0.00	0.00	40.98
Onsite Fugitive Dust	203.19	210.09	492.73	492.39	357.52	73.95	76.72	0.00	492.73
Concrete Batching	165.41	165.41	165.41	165.41	165.41	165.41	165.41	0.00	165.41
Crushing/Processing	27.22	27.22	27.22	27.22	27.22	27.22	27.22	0.00	27.22
Onsite Subtotal	*406.74*	*443.70*	*707.06*	*717.50*	*582.63*	*299.06*	*269.35*	*0.00*	*717.50*
Offsite Haul Trucks	0.00	57.22	62.26	69.64	33.02	15.76	78.00	0.00	78.00
Worker Trips	2.39	13.60	10.61	8.22	7.84	7.47	9.71	0.00	13.60
Offsite Subtotal	*2.39*	*70.82*	*72.87*	*77.86*	*40.87*	*23.23*	*87.72*	*0.00*	*87.72*
Total	**409.13**	**514.51**	**779.93**	**795.36**	**623.50**	**322.29**	**357.07**	**0.00**	**795.36**
Emissions of $PM_{2.5}$ (lbs/day)									
	2007	2008	2009	2010	2011	2012	2013	2014	PEAK
Construction Equipment	10.05	37.70	19.96	29.88	29.88	29.88	0.00	0.00	37.70
Onsite Fugitive Dust	40.64	42.02	98.55	98.48	71.51	14.80	15.35	0.00	98.55
Concrete Batching	111.47	111.47	111.47	111.47	111.47	111.47	111.47	0.00	111.47
Crushing/Processing	2.33	2.33	2.33	2.33	2.33	2.33	2.33	0.00	2.33
Onsite Subtotal	*164.49*	*193.53*	*232.32*	*242.16*	*215.19*	*158.48*	*129.15*	*0.00*	*242.16*
Offsite Haul Trucks	0.00	14.98	16.30	18.23	8.65	4.13	20.42	0.00	20.42
Worker Trips	0.45	2.55	1.99	1.54	1.47	1.40	1.82	0.00	2.55
Offsite Subtotal	*0.45*	*17.53*	*18.29*	*19.77*	*10.12*	*5.53*	*22.24*	*0.00*	*22.24*
Total	**164.94**	**211.06**	**250.60**	**261.94**	**225.31**	**164.01**	**151.40**	**0.00**	**261.94**

Notes:
Concrete Batching and Materials Processing (Crushing) are assume to be controlled for permitting, controls are part of project design.
Concrete Batching and Materials Processing (Crushing) are assume to begin in 4th Quarter of 2007; one (1) Batch Plant and two (2) Processing Facilities assumed to operate during project construction.
Offsite Haul Trucks and Worker Trips includes paved road dust in PM10 and PM2.5 emission factors.

Alternative 3 - Mitigated Emissions Summary

Emissions of ROG (tons/year)									
	2007	2008	2009	2010	2011	2012	2013	2014	Peak Yr
Construction Equipment	3.66	18.76	18.39	32.30	28.73	21.73	0.00	0.00	32.30
Onsite Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Batching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Subtotal	*3.66*	*18.76*	*18.39*	*32.30*	*28.73*	*21.73*	*0.00*	*0.00*	*32.30*
Offsite Haul Trucks	0.00	0.04	0.39	0.38	0.45	0.01	0.07	0.00	0.45
Worker Trips	0.06	0.13	0.21	0.16	0.20	0.02	0.12	0.00	0.21
Offsite Subtotal	*0.06*	*0.17*	*0.60*	*0.53*	*0.66*	*0.03*	*0.18*	*0.00*	*0.66*
Total	**3.72**	**18.93**	**18.99**	**32.84**	**29.39**	**21.76**	**0.18**	**0.00**	**32.84**

Emissions of CO (tons/year)									
	2007	2008	2009	2010	2011	2012	2013	2014	Peak Yr
Construction Equipment	31.01	158.47	155.76	274.27	243.75	184.43	0.00	0.00	274.27
Onsite Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Batching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Subtotal	*31.01*	*158.47*	*155.76*	*274.27*	*243.75*	*184.43*	*0.00*	*0.00*	*274.27*
Offsite Haul Trucks	0.00	0.15	1.45	1.39	1.69	0.04	0.25	0.16	1.69
Worker Trips	1.89	4.39	7.21	5.32	6.95	0.77	3.99	0.00	7.21
Offsite Subtotal	*1.89*	*4.54*	*8.66*	*6.71*	*8.64*	*0.81*	*4.24*	*0.16*	*8.66*
Total	**32.90**	**163.00**	**164.41**	**280.98**	**252.39**	**185.24**	**4.24**	**0.16**	**280.98**

Emissions of NOx (tons/year)									
	2007	2008	2009	2010	2011	2012	2013	2014	Peak Yr
Construction Equipment	17.14	89.26	88.16	152.19	134.19	101.38	0.00	0.00	152.19
Onsite Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Batching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Subtotal	*17.14*	*89.26*	*88.16*	*152.19*	*134.19*	*101.38*	*0.00*	*0.00*	*152.19*
Offsite Haul Trucks	0.00	0.65	6.44	6.19	7.50	0.17	1.10	0.00	7.50
Worker Trips	0.18	0.43	0.70	0.51	0.67	0.07	0.39	0.00	0.70
Offsite Subtotal	*0.18*	*1.08*	*7.14*	*6.71*	*8.17*	*0.24*	*1.49*	*0.00*	*8.17*
Total	**17.32**	**90.34**	**95.30**	**158.90**	**142.36**	**101.63**	**1.49**	**0.00**	**158.90**

Emissions of PM_{10} (tons/year)									
	2007	2008	2009	2010	2011	2012	2013	2014	Peak Yr
Construction Equipment	0.45	2.45	1.95	4.91	5.25	4.06	0.00	0.00	5.25
Onsite Fugitive Dust	8.16	25.74	59.99	54.91	43.22	9.06	9.04	0.00	59.99
Concrete Batching	5.46	21.83	21.83	21.83	21.83	21.83	21.83	0.00	21.83
Crushing/Processing	0.90	3.59	3.59	3.59	3.59	3.59	3.59	0.00	3.59
Onsite Subtotal	*14.96*	*53.62*	*87.37*	*85.25*	*73.89*	*38.54*	*34.47*	*0.00*	*87.37*
Offsite Haul Trucks	0.00	0.14	1.41	1.36	1.64	0.04	0.24	0.00	1.64
Worker Trips	0.31	0.72	1.18	0.87	1.14	0.13	0.66	0.00	1.18
Offsite Subtotal	*0.31*	*0.87*	*2.60*	*2.23*	*2.79*	*0.16*	*0.90*	*0.00*	*2.79*
Total	**15.27**	**54.49**	**89.97**	**87.48**	**76.68**	**38.71**	**35.37**	**0.00**	**89.97**

Emissions of $PM_{2.5}$ (tons/year)									
	2007	2008	2009	2010	2011	2012	2013	2014	Peak Yr
Construction Equipment	0.41	2.25	1.80	4.52	4.83	3.74	0.00	0.00	4.83
Onsite Fugitive Dust	1.63	5.15	12.00	10.98	8.64	1.81	1.81	0.00	12.00
Concrete Batching	3.68	14.71	14.71	14.71	14.71	14.71	14.71	0.00	14.71
Crushing/Processing	0.08	0.31	0.31	0.31	0.31	0.31	0.31	0.00	0.31
Onsite Subtotal	*5.80*	*22.43*	*28.82*	*30.52*	*28.49*	*20.57*	*16.83*	*0.00*	*30.52*
Offsite Haul Trucks	0.00	0.04	0.37	0.36	0.43	0.01	0.06	0.00	0.43
Worker Trips	0.06	0.14	0.22	0.16	0.21	0.02	0.12	0.00	0.22
Offsite Subtotal	*0.06*	*0.17*	*0.59*	*0.52*	*0.64*	*0.03*	*0.19*	*0.00*	*0.64*
Total	**5.86**	**22.60**	**29.41**	**31.04**	**29.14**	**20.60**	**17.02**	**0.00**	**31.04**

Notes:
Concrete Batching and Materials Processing (Crushing) are assume to be controlled for permitting, controls are part of project design.
Concrete Batching and Materials Processing (Crushing) are assume to begin in 4th Quarter of 2007; one (1) Batch Plant and two (2) Processing Facilities assumed to operate during project construction.
Offsite Haul Trucks and Worker Trips includes paved road dust in PM10 and PM2.5 emission factors.

Estimate Summary of Materials Required for Corps Alternative - Gated Spillway with 3.5-ft Concrete Wall Rasie

	Auxiliary Spillway Excavation	Auxiliary Fuseplug Spillway Construction	Tunnel Excavation	Tunnel Construction	Main Dam Construction	Dike 1	Dike 2	Dike 3	Mooney Ridge	Dike 4	Dike 5	Dike 6	RWD	LWD	Dike 7	Dike 8	MIAD	TOTAL
Stripping & Excavation (cu yd)	0	3425057	0	0	0	3,949	5,926	2,885	0	2,126	3,189	2,445	10,401	3,265	1,390	1,381	7,479	3,469,493
Backfill Material Requirements (cu yd)		58135	0	0	0	1,488	1,144	1,087	0	801	1,202	921	3,920	1,230	524	521	2,818	73,791
Fine Filter (cu yd)		0				317	1,681	232	0	171	257	197	837	263	112	111	602	4,780
Coarse Filter Material (cu yd)		0				0	0	0	0	0	0	0	0	0	0	0	0	0
Slope Protection U/S Face (cu yd)		0				1,348	2,407	985	0	726	1,089	835	3,552	1,115	474	472	2,554	15,557
Road Base (cu yd)						0	0	0	0	0	0	0	0	0	0	0		0
AC Paving (4-inch thick) (cu yd)		1100				0	0	0	0	0	0	0	0	0	0	0	0	1,100
Concrete (cu yd)		280810		0	0	1,203	926	880	0	648	889	745	3,171	995	424	421	2,280	293,392
Reinforcement Steel (tons)		9157			0	39	34	1		26	37	28	130	41	14	12	94	9,613
Pre-cast Concrete Panels (sq ft)						0	0											0
Grout (cu yd)						0	0										0	0
Excess Material Spoil (cu yd)		3,366,922				2,461	4,782	1,798	0	1,325	1,987	1,524	6,481	2,035	866	860	4,661	3,395,702

Assumptions	Auxiliary Spillway Excavation	
1		Only borrow excavation will be from Auxiliary Spillway
2		Rip rap generated from spillway excavation
3		Disposal of excess near each project site.
4		Concrete for spillway produced in local batch plant
5		Concrete for 3.5-ft parapet walls hauled premixed from off site plant @ 5 truckloads per day
6		Borrow for crest replacement will be transported from the Dike 7/Folsom Point spoils location.

Aux Spillway Quantities																		
Earth Excavation		Earth/Rock																
Chute Common Excav.		1076025																
Chute Rock Excav.		883140																
Gate Common Excav.		188260																
Gate Rock Excav.		204550																
Approach Channel - P1		252755																
AC Rock P1		259280																
Approach Channel - P2		440243																
AC Rock P2		120804																
		3425057																
Concrete/Steel		Concrete			Steel	Grout												
Gate Structure Foundation						49												
Gate Structure Gallery						25												
Barrier Wall at LWD		60			69060													
Gate Struct. Non-overflow		71200			12000													
Gate Struct. Overflow		14975																
Structure Concrete		26377			3890335													
Elliptical Approach Walls		2250			88700													
Steel Pier Nose					295960													
Steel STGs					1325057		608981	69065	18940	360101	44900	125916	4875	15959	76320	1325057		
STG Bulkhead					893817													
Box Girder Bridge		545			188135													
Chute Slab		68060			4741435													
Chute Walls		9355			1446670													
		28081			9157													

Equipment	Auxiliary Spillway Excavation	Auxiliary Spillway Construction	Tunnel Excavation	Tunnel Construction	Main Dam Construction	Dike 1	Dike 2	Dike 3	Mooney Ridge	Dike 4	Dike 5	Dike 6	RWD	LWD	Dike 7	Dike 8	MIAD	TOTAL
Stripping Days		4								1	1	1	4	1	1	1	4	
CAT D7G Bulldozer		0			2	1	1	1		1	1	1	2	1	1	1	2	
CAT D9 Dozer		1																
CAT 966F Series II Wheel Loader					2	1	1	1		1	1	1	2	1	1	1	2	
CAT D350E Articulated Truck		10			4	2	2	2		2	2	2	4	2	2	2	4	
CAT 375 Excavator		1																
CAT 160H Motor Grader with ripper		1				1	1	1		1	1	1	1	1	1	1	1	
Water Truck		1				1	1	1		1	1	1	1	1	1	1	1	
Shell Excavation Days										1	1	1						
CAT D7G Bulldozer		0				1	1	1		1	1	1	1	1	1	1	1	
CAT D9 Dozer																		
CAT D11 Dozer		2																
CAT 657 Scraper		10																
CAT 160H Motor Grader with ripper		1																
CAT 966F Series II Wheel Loader		0				1	1	1		1	1	1	1	1	1	1	1	
CAT D350E Articulated Truck		0				2	2	2		2	2	2	2	2	2	2	2	
Drill rig		4																
Water truck		2																
Crest Replacement Days						30	22	22		16	22	20	80	25	10	10	60	
CAT D7G Bulldozer						1	1	1		1	1	1	2	1				
CAT D9R Dozer																		
CAT D11 Dozer																		
CAT 657 Scraper																		
CAT 966F Series II Wheel Loader						1	1	1		1	1	1	2	1	1	1	2	
CAT D350E Articulated Truck						2		2		2	2	2	4	2	2	2	4	
CAT CB-534C Vibratory Compactor						1	1	1		1	1	1	1	1	1	1	1	
Water Truck						1	1	1		1	1	1	1	1	1	1	1	

Equipment	Auxiliary Spillway Excavation	Auxiliary Spillway Construction	Tunnel Excavation	Tunnel Construction	Main Dam Construction	Dike 1	Dike 2	Dike 3	Mooney Ridge	Dike 4	Dike 5	Dike 6	RWD	LWD	Dike 7	Dike 8	MIAD	TOTAL
Shell Placement Days																		
CAT D7G Bulldozer																		
CAT D9R Dozer																		
CAT D11 Dozer																		
CAT 657 Scraper																		
CAT 966F Series II Wheel Loader																		
Excavator 375L																		
CAT D350E Articulated Truck																		
Quarry Truck 771D																		
Belly Dump Truck C12 Engine																		
CAT CB-534C Vibratory Compactor																		
All terrain 20-T crane																		
Water Truck																		
Crest Pavement Days																		
Belly Dump Truck C12 Engine																		
Motor Grader 160H																		
CAT AP-800C Asphalt Paver																		
CAT BG-650 Windrow Elevator																		
CAT CB-534C Vibratory Compactor																		
Spillway Construction Days		431																
Concrete Transit Mixer		5																
Concrete Pump Trucks		2																
All terrain 20-T crane		1																
CAT D7G Bulldozer		3																
CAT 657 Scraper		5																
CAT CB-534C Vibratory Compactor		1																
CAT D350E Articulating Truck		2																
Front End Loader 966F		2																
End Dump Trucks		6																
Water Truck		1																
Parapet Wall Construction Days						30	22	22		16	22	20	80	25	10	10	60	
All terrain 20-T crane						2	2	2		2	2	2	4	2	2	2	4	
Flatbed Truck for Forms movement						1	1	1		1	1	1	2	1	1	1	2	

Materials Hauling From Off-Site Sources	Auxiliary Spillway Excavation	Auxiliary Fuseplug Spillway Construction	Tunnel Excavation	Tunnel Construction	Main Dam Construction	Dike 1	Dike 2	Dike 3	Mooney Ridge	Dike 4	Dike 5	Dike 6	RWD	LWD	Dike 7	Dike 8	MIAD	TOTAL
Construction Schedule																		
Filter Material Total						317	1,681	232		171	257	197	837	263	112	111	602	
Work Days						1	2	1		1	2	1	5	2	1	1	5	
Loads @ 20 cu yd per load						16	84	12		9	13	10	42	13	6	6	30	
Estimated loads per work day						16	42	12		**9**	**6**	**10**	**8**	**7**	**6**	**6**	**6**	
Ready-Mix Concrete						1,203	926	880		648	889	745	3,171	995	424	421	2,280	
Work Days						30	22	22		16	22	20	80	25	10	10	60	
Loads @ 10 cu yd per load						120	93	88		65	89	75	317	100	42	42	228	
Estimated loads per work day						4	4	4		4	4	4	4	4	4	4	4	
Reinforcement Steel						39	34	1		26	37	28	130	41	14	12	94	
Work Days		100				1	1	1		1	1	1	1	1	1	1	1	
Steel Transport Total		0																
Loads @ 10 tons per load		0				4	4	1		3	4	3	13	4	2	1	10	
Estimated loads per work day		0				4	4	1		3	4	3	13	4	2	1	10	
Raw Materials for Concrete Mixing																		
Work Days		431																
Cement and Gravel Transport Total		280810																
Loads @ 20 cu yd per load		14041																
Estimated loads per work day		33																

		Auxiliary Fuseplug Spillway Construction	Tunnel Excavation	Tunnel Construction	Main Dam Construction	Dike 1	Dike 2	Dike 3	Mooney Ridge	Dike 4	Dike 5	Dike 6	RWD	LWD	Dike 7	Dike 8	MIAD	
Materials Hauling On-site																		
Auxilliary Spillway Excavation																		
Work Days		782																
Total Transported		3425057																
Loads @ 20 cy per load		171253																
Estimated Loads per work day		219																
Riprap Material Total						1,348	2,407	985		726	1,089	835	3,552	1,115	474	472	2,554	
Work Days						2	4	2		1	2	1	4	2	1	1	3	
Loads @ 20 cu yd per load						67	120	49		36	54	42	178	56	24	24	128	
Estimated loads per work day						34	30	25		36	27	42	44	28	24	24	43	
Folsom Point Processing																		
Work Days		780																
Total Processed		103307.4																
Loads @ 20 cy per load		5165.37																
Estimated Loads per work day		7																
Spillway Concrete Hauling																		
Work Days		431																
Total Processed		280810																
Loads @ 10 cy per load		28081																
Estimated Loads per work day		65																
		Auxiliary Fuseplug Spillway Construction	Tunnel Excavation	Tunnel Construction	Main Dam Construction	Dike 1	Dike 2	Dike 3	Mooney Ridge	Dike 4	Dike 5	Dike 6	RWD	LWD	Dike 7	Dike 8	MIAD	
On-site Dike Reconstruction Hauling																		
Work Days						8	8	6		4	6	5	20	8	3	3	20	
Materials Total						1,488	1,144	1,087		801	1,202	921	3,920	1,230	524	521	2,818	
Loads @ 20 cu yd per load						74.4	57.2	54.35		40.05	60.1	46.05	196	61.5	26.2	26.05	140.9	
Loads @ 30 cu yd per load																		
Estimated loads per work day						9	7	9		10	10	9	10	8	9	9	7	

		NOx	Daily Emission (lbs/day)						
		2007	2008	2009	2010	2011	2012	2013	2014
	Stripping Days	82	127	74	0	360	21	0	0
CrawlerTractors	CAT D7G Bulldozer	-	140.56	57.00	-	35.84	53.76	-	-
CrawlerTractors	CAT D9 Dozer	21.16	20.08	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	118.76	47.16	-	31.44	47.16	-	-
OnRoadHaul	CAT D350E Articulated Truck	417.80	1,004.56	250.68	-	167.12	250.68	-	-
Excavators	CAT 375 Excavator	21.34	21.34	-	-	-	-	-	-
Graders	CAT 160H Motor Grader with ripper	20.44	143.98	61.32	-	-	61.32	-	-
OffHighwayTrucksWaterTrucks	Water Truck	41.78	250.68	125.34	-	-	125.34	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
	Subtotal	522.52	1,699.96	541.50	-	234.40	538.26	-	-
	Shell Excavation Days	0	177	324	200	0	21	0	0
CrawlerTractors	CAT D7G Bulldozer	-	100.40	57.00	-	-	53.76	-	-
CrawlerTractors	CAT D9 Dozer	-	-	-	-	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	40.16	38.00	35.84	-	-	-	-
Scrapers	CAT 657 Scraper	-	422.40	422.40	422.40	-	-	-	-
Graders	CAT 160H Motor Grader with ripper	-	20.44	20.44	20.44	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	83.32	47.16	-	-	47.16	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	417.80	250.68	-	-	250.68	-	-
BoreDrillRigs	Drill rig	-	103.76	131.28	124.88	-	-	-	-
OffHighwayTrucksWaterTrucks	Water truck	-	83.56	83.56	83.56	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
	Subtotal	-	1,271.84	1,050.52	687.12	-	351.60	-	-
	Crest Replacement Days	0	158	94	20	0	45	0	0
CrawlerTractors	CAT D7G Bulldozer	-	100.40	57.00	-	-	17.92	-	-
CrawlerTractors	CAT D9R Dozer	-	-	-	-	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	-	-	-	-	-	-	-
Scrapers	CAT 657 Scraper	-	-	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	110.04	78.60	31.44	-	47.16	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	503.16	252.48	85.36	-	250.68	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	143.70	114.08	41.78	-	68.22	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	208.90	167.12	41.78	-	125.34	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
	Subtotal	-	1,066.20	669.28	200.36	-	509.32	-	-
	Shell Placement Days	0	10	0	0	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CrawlerTractors	CAT D9R Dozer	-	-	-	-	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	-	-	-	-	-	-	-
Scrapers	CAT 657 Scraper	-	-	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
Excavators	Excavator 375L	-	-	-	-	-	-	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	-	-	-	-	-	-	-
OnRoadHaul	Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
Cranes	All terrain 20-T crane	-	-	-	-	-	-	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	-	-	-	-	-	-	-
	Subtotal	-	-	-	-	-	-	-	-
	Crest Pavement Days	0	0	0	0	0	0	0	0
OnRoadHaul	Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
Graders	Motor Grader 160H	-	-	-	-	-	-	-	-
Pavers	CAT AP-800C Asphalt Paver	-	-	-	-	-	-	-	-
PavingEquipment	CAT BG-650 Windrow Elevator	-	-	-	-	-	-	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
	Subtotal	-	-	-	-	-	-	-	-
	Spillway Construction Days	0	0	0	235	250	235	0	0
OnRoadHaul	Concrete Transit Mixer	-	-	-	208.90	208.90	208.90	-	-
OnRoadHaul	Concrete Pump Trucks	-	-	-	83.56	83.56	83.56	-	-
Cranes	All terrain 20-T crane	-	-	-	16.74	16.74	16.74	-	-
CrawlerTractors	CAT D7G Bulldozer	-	-	-	53.76	53.76	53.76	-	-
Scrapers	CAT 657 Scraper	-	-	-	211.20	211.20	211.20	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	-	-	22.74	22.74	22.74	-	-
OnRoadHaul	CAT D350E Articulating Truck	-	-	-	83.56	83.56	83.56	-	-
RubberTiredLoaders	Front End Loader 966F	-	-	-	31.44	31.44	31.44	-	-
OnRoadHaul	End Dump Trucks	-	-	-	250.68	250.68	250.68	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	-	-	41.78	41.78	41.78	-	-
	Subtotal	-	-	-	1,004.36	1,004.36	1,004.36	-	-
	Parapet Wall Construction Days	0	158	94	20	0	45	0	0
Cranes	All terrain 20-T crane	-	234.36	167.40	66.96	-	100.44	-	-
OnRoadHaul	Flatbed Truck for Forms movement	-	292.46	208.90	83.56	-	125.34	-	-
	Subtotal	-	526.82	376.30	150.52	-	225.78	-	-
	Maximum Daily	522.5	1,700.0	1,050.5	1,004.4	1,004.4	1,004.4	-	-

NOx	Annual Emissions (tpy)							
	2007	2008	2009	2010	2011	2012	2013	2014
Stripping Days								
CAT D7G Bulldozer	-	0.512	0.703	-	6.451	0.188	-	-
CAT D9 Dozer	0.868	1.004	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.488	0.582	-	5.659	0.165	-	-
CAT D350E Articulated Truck	17.130	23.039	3.092	-	30.082	0.877	-	-
CAT 375 Excavator	0.875	1.067	-	-	-	-	-	-
CAT 160H Motor Grader with ripper	0.838	1.511	0.756	-	-	0.215	-	-
Water Truck	1.713	2.653	1.546	-	-	0.439	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Subtotal	21.42	30.27	6.68	-	42.19	1.88	-	-
Shell Excavation Days								
CAT D7G Bulldozer	-	0.271	0.703	-	-	0.188	-	-
CAT D9 Dozer	-	-	-	-	-	-	-	-
CAT D11 Dozer	-	3.012	4.750	3.584	-	-	-	-
CAT 657 Scraper	-	31.680	52.800	42.240	-	-	-	-
CAT 160H Motor Grader with ripper	-	1.533	2.555	2.044	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.259	0.582	-	-	0.165	-	-
CAT D350E Articulated Truck	-	1.128	3.092	-	-	0.877	-	-
Drill rig	-	7.782	16.410	12.488	-	-	-	-
Water truck	-	6.267	10.445	8.356	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Subtotal	-	51.93	91.34	68.71	-	1.23	-	-
Crest Replacement Days								
CAT D7G Bulldozer	-	2.189	0.703	-	-	0.224	-	-
CAT D9R Dozer	-	-	-	-	-	-	-	-
CAT D11 Dozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	2.028	0.896	0.314	-	0.354	-	-
CAT D350E Articulated Truck	-	9.962	3.026	0.854	-	1.880	-	-
CAT CB-534C Vibratory Compactor	-	2.176	1.310	0.418	-	0.512	-	-
Water Truck	-	3.301	1.964	0.418	-	0.940	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Subtotal	-	19.65	7.90	2.00	-	3.91	-	-
Shell Placement Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9R Dozer	-	-	-	-	-	-	-	-
CAT D11 Dozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
Excavator 375L	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	-	-	-	-	-	-	-
Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
All terrain 20-T crane	-	-	-	-	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-
Crest Pavement Days								
Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
Motor Grader 160H	-	-	-	-	-	-	-	-
CAT AP-800C Asphalt Paver	-	-	-	-	-	-	-	-
CAT BG-650 Windrow Elevator	-	-	-	-	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-
Spillway Construction Days								
Concrete Transit Mixer	-	-	-	24.546	26.113	24.546	-	-
Concrete Pump Trucks	-	-	-	9.818	10.445	9.818	-	-
All terrain 20-T crane	-	-	-	1.967	2.093	1.967	-	-
CAT D7G Bulldozer	-	-	-	6.317	6.720	6.317	-	-
CAT 657 Scraper	-	-	-	24.816	26.400	24.816	-	-
CAT CB-534C Vibratory Compactor	-	-	-	2.672	2.843	2.672	-	-
CAT D350E Articulating Truck	-	-	-	9.818	10.445	9.818	-	-
Front End Loader 966F	-	-	-	3.694	3.930	3.694	-	-
End Dump Trucks	-	-	-	29.455	31.335	29.455	-	-
Water Truck	-	-	-	4.909	5.223	4.909	-	-
Subtotal	-	-	-	118.01	125.55	118.01	-	-
Parapet Wall Construction Days								
All terrain 20-T crane	-	4.319	1.908	0.670	-	0.753	-	-
Flatbed Truck for Forms movement	-	5.390	2.381	0.836	-	0.940	-	-
-	-	9.71	4.29	1.51	-	1.69	-	
Annual Total	21.423	111.571	110.203	190.233	167.737	126.730	-	-

	Annual Emissions (tpy)							
	2007	2008	2009	2010	2011	2012	2013	2014
BoreDrillRigs	-	7.782	16.410	12.488	-	-	-	-
Cranes	-	4.319	1.908	2.637	2.093	2.720	-	-
CrawlerTractors	0.868	6.988	6.859	9.901	13.171	6.917	-	-
Excavators	0.875	1.067	-	-	-	-	-	-
Graders	0.838	3.044	3.311	2.044	-	0.215	-	-
OffHighwayTractorsCompactors	-	2.176	1.310	3.090	2.843	3.184	-	-
OffHighwayTrucksWaterTrucks	1.713	12.221	13.955	13.683	5.223	6.288	-	-
OnRoadHaul	17.130	39.519	11.591	75.326	108.419	78.212	-	-
Pavers	-	-	-	-	-	-	-	-
PavingEquipment	-	-	-	-	-	-	-	-
RubberTiredLoaders	-	2.775	2.059	4.009	9.589	4.378	-	-
Scrapers	-	31.680	52.800	67.056	26.400	24.816	-	-
	21.423	111.571	110.203	190.233	167.737	126.730	-	-

		PM10 Daily Emission (lbs/day)							
		2007	2008	2009	2010	2011	2012	2013	2014
	Stripping Days	82	127	74	0	360	21	0	0
CrawlerTractors	CAT D7G Bulldozer	-	4.90	3.10	-	1.08	1.62	-	-
CrawlerTractors	CAT D9 Dozer	0.78	0.70	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	3.60	3.10	-	0.88	1.32	-	-
OnRoadHaul	CAT D350E Articulated Truck	7.80	21.40	6.20	-	4.64	6.96	-	-
Excavators	CAT 375 Excavator	0.78	0.70	-	-	-	-	-	-
Graders	CAT 160H Motor Grader with ripper	0.78	3.64	2.48	-	-	1.68	-	-
OffHighwayTrucksWaterTrucks	Water Truck	0.78	6.04	2.48	-	-	3.48	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
	Subtotal	10.92	40.98	17.36	-	6.60	15.06	-	-
	Shell Excavation Days	0	177	324	200	0	21	0	0
CrawlerTractors	CAT D7G Bulldozer	-	3.50	2.48	-	-	1.62	-	-
CrawlerTractors	CAT D9 Dozer	-	-	-	-	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	1.40	1.24	1.08	-	-	-	-
Scrapers	CAT 657 Scraper	-	7.00	6.20	5.40	-	-	-	-
Graders	CAT 160H Motor Grader with ripper	-	0.70	0.62	0.54	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	2.46	2.48	-	-	1.32	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	10.68	4.96	-	-	6.96	-	-
BoreDrillRigs	Drill rig	-	2.80	2.48	2.16	-	-	-	-
OffHighwayTrucksWaterTrucks	Water truck	-	1.40	1.24	1.08	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
	Subtotal	-	29.94	21.70	10.26	-	9.90	-	-
	Crest Replacement Days	0	158	94	20	0	45	0	0
CrawlerTractors	CAT D7G Bulldozer	-	3.50	1.86	-	-	0.54	-	-
CrawlerTractors	CAT D9R Dozer	-	-	-	-	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	-	-	-	-	-	-	-
Scrapers	CAT 657 Scraper	-	-	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	3.60	3.10	1.08	-	1.32	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	14.40	4.96	2.16	-	6.96	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	4.22	2.48	0.54	-	2.04	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	5.34	2.48	0.54	-	3.48	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
	Subtotal	-	31.06	14.88	4.32	-	14.34	-	-
	Shell Placement Days	0	10	0	0	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CrawlerTractors	CAT D9R Dozer	-	-	-	-	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	-	-	-	-	-	-	-
Scrapers	CAT 657 Scraper	-	-	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
Excavators	Excavator 375L	-	-	-	-	-	-	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	-	-	-	-	-	-	-
OnRoadHaul	Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
Cranes	All terrain 20-T crane	-	-	-	-	-	-	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	-	-	-	-	-	-	-
	Subtotal	-	-	-	-	-	-	-	-
	Crest Pavement Days	0	0	0	0	0	0	0	0
OnRoadHaul	Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
Graders	Motor Grader 160H	-	-	-	-	-	-	-	-
Pavers	CAT AP-800C Asphalt Paver	-	-	-	-	-	-	-	-
PavingEquipment	CAT BG-650 Windrow Elevator	-	-	-	-	-	-	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
	Subtotal	-	-	-	-	-	-	-	-
	Spillway Construction Days	0	0	0	235	250	235	0	0
OnRoadHaul	Concrete Transit Mixer	-	-	-	5.80	5.80	5.80	-	-
OnRoadHaul	Concrete Pump Trucks	-	-	-	2.32	2.32	2.32	-	-
Cranes	All terrain 20-T crane	-	-	-	1.16	1.16	1.16	-	-
CrawlerTractors	CAT D7G Bulldozer	-	-	-	3.48	3.48	3.48	-	-
Scrapers	CAT 657 Scraper	-	-	-	5.80	5.80	5.80	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	-	-	1.16	1.16	1.16	-	-
OnRoadHaul	CAT D350E Articulating Truck	-	-	-	2.32	2.32	2.32	-	-
RubberTiredLoaders	Front End Loader 966F	-	-	-	2.32	2.32	2.32	-	-
OnRoadHaul	End Dump Trucks	-	-	-	6.96	6.96	6.96	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	-	-	1.16	1.16	1.16	-	-
	Subtotal	-	-	-	32.48	32.48	32.48	-	-
	Parapet Wall Construction Days	0	158	94	20	0	45	0	0
Cranes	All terrain 20-T crane	-	6.44	4.60	1.84	-	2.76	-	-
OnRoadHaul	Flatbed Truck for Forms movement	-	6.72	2.30	0.92	-	3.48	-	-
	Subtotal	-	13.16	6.90	2.76	-	6.24	-	-
	Maximum Daily	10.9	41.0	21.7	32.5	32.5	32.5	-	-

PM10	Annual Emissions (tpy)							
	2007	2008	2009	2010	2011	2012	2013	2014
Stripping Days								
CAT D7G Bulldozer	-	0.018	0.023	-	0.194	0.006	-	-
CAT D9 Dozer	0.032	0.035	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.016	0.023	-	0.158	0.005	-	-
CAT D350E Articulated Truck	0.320	0.391	0.046	-	0.835	0.024	-	-
CAT 375 Excavator	0.032	0.035	-	-	-	-	-	-
CAT 160H Motor Grader with ripper	0.032	0.044	0.023	-	-	0.006	-	-
Water Truck	0.032	0.046	0.023	-	-	0.012	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Subtotal								
Shell Excavation Days								
CAT D7G Bulldozer	-	0.009	0.023	-	-	0.006	-	-
CAT D9 Dozer	-	-	-	-	-	-	-	-
CAT D11 Dozer	-	0.105	0.155	0.108	-	-	-	-
CAT 657 Scraper	-	0.525	0.775	0.540	-	-	-	-
CAT 160H Motor Grader with ripper	-	0.053	0.078	0.054	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.009	0.023	-	-	0.005	-	-
CAT D350E Articulated Truck	-	0.022	0.046	-	-	0.024	-	-
Drill rig	-	0.210	0.310	0.216	-	-	-	-
Water truck	-	0.105	0.155	0.108	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Subtotal								
Crest Replacement Days								
CAT D7G Bulldozer	-	0.076	0.023	-	-	0.007	-	-
CAT D9R Dozer	-	-	-	-	-	-	-	-
CAT D11 Dozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.062	0.035	0.011	-	0.010	-	-
CAT D350E Articulated Truck	-	0.281	0.057	0.022	-	0.052	-	-
CAT CB-534C Vibratory Compactor	-	0.068	0.029	0.005	-	0.015	-	-
Water Truck	-	0.087	0.029	0.005	-	0.026	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Subtotal								
Shell Placement Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9R Dozer	-	-	-	-	-	-	-	-
CAT D11 Dozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
Excavator 375L	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	-	-	-	-	-	-	-
Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
All terrain 20-T crane	-	-	-	-	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal								
Crest Pavement Days								
Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
Motor Grader 160H	-	-	-	-	-	-	-	-
CAT AP-800C Asphalt Paver	-	-	-	-	-	-	-	-
CAT BG-650 Windrow Elevator	-	-	-	-	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
Subtotal								
Spillway Construction Days								
Concrete Transit Mixer	-	-	-	0.682	0.725	0.682	-	-
Concrete Pump Trucks	-	-	-	0.273	0.290	0.273	-	-
All terrain 20-T crane	-	-	-	0.136	0.145	0.136	-	-
CAT D7G Bulldozer	-	-	-	0.409	0.435	0.409	-	-
CAT 657 Scraper	-	-	-	0.682	0.725	0.682	-	-
CAT CB-534C Vibratory Compactor	-	-	-	0.136	0.145	0.136	-	-
CAT D350E Articulating Truck	-	-	-	0.273	0.290	0.273	-	-
Front End Loader 966F	-	-	-	0.273	0.290	0.273	-	-
End Dump Trucks	-	-	-	0.818	0.870	0.818	-	-
Water Truck	-	-	-	0.136	0.145	0.136	-	-
Subtotal								
Parapet Wall Construction Days								
All terrain 20-T crane	-	0.119	0.052	0.018	-	0.021	-	-
Flatbed Truck for Forms movement	-	0.136	0.026	0.009	-	0.026	-	-
Subtotal								
Annual Total	0.448	2.451	1.954	4.913	5.248	4.061	-	-

	Annual Emissions (tpy)							
	2007	2008	2009	2010	2011	2012	2013	2014
BoreDrillRigs	-	0.210	0.310	0.216	-	-	-	-
Cranes	-	0.119	0.052	0.155	0.145	0.157	-	-
CrawlerTractors	0.032	0.244	0.224	0.517	0.629	0.427	-	-
Excavators	0.032	0.035	-	-	-	-	-	-
Graders	0.032	0.096	0.100	0.054	-	0.006	-	-
OffHighwayTractorsCompactors	-	0.068	0.029	0.142	0.145	0.152	-	-
OffHighwayTrucksWaterTrucks	0.032	0.238	0.207	0.250	0.145	0.175	-	-
OnRoadHaul	0.320	0.829	0.175	2.075	3.010	2.172	-	-
Pavers	-	-	-	-	-	-	-	-
PavingEquipment	-	-	-	-	-	-	-	-
RubberTiredLoaders	-	0.087	0.081	0.283	0.448	0.292	-	-
Scrapers	-	0.525	0.775	1.222	0.725	0.682	-	-
	0.448	2.451	1.954	4.913	5.248	4.061	-	-

		CO Daily Emission (lbs/day)							
		2007	2008	2009	2010	2011	2012	2013	2014
	Stripping Days	82	127	74	0	360	21	0	0
CrawlerTractors	CAT D7G Bulldozer	-	156.10	69.30	-	47.80	71.70	-	-
CrawlerTractors	CAT D9 Dozer	21.50	22.30	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	159.80	69.12	-	46.08	69.12	-	-
OnRoadHaul	CAT D350E Articulated Truck	612.40	1,472.48	367.44	-	244.96	367.44	-	-
Excavators	CAT 375 Excavator	31.28	31.28	-	-	-	-	-	-
Graders	CAT 160H Motor Grader with ripper	29.96	211.04	89.88	-	-	89.88	-	-
OffHighwayTrucksWaterTrucks	Water Truck	61.24	367.44	183.72	-	-	183.72	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
	Subtotal	756.38	2,420.44	779.46	-	338.84	781.86	-	-
	Shell Excavation Days	0	177	324	200	0	21	0	0
CrawlerTractors	CAT D7G Bulldozer	-	111.50	69.30	-	-	71.70	-	-
CrawlerTractors	CAT D9 Dozer	-	-	-	-	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	44.60	46.20	47.80	-	-	-	-
Scrapers	CAT 657 Scraper	-	619.20	619.20	619.20	-	-	-	-
Graders	CAT 160H Motor Grader with ripper	-	29.96	29.96	29.96	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	122.12	69.12	-	-	69.12	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	612.40	367.44	-	-	367.44	-	-
BoreDrillRigs	Drill rig	-	127.76	161.68	153.84	-	-	-	-
OffHighwayTrucksWaterTrucks	Water truck	-	122.48	122.48	122.48	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
	Subtotal	-	1,790.02	1,485.38	973.28	-	508.26	-	-
	Crest Replacement Days	0	158	94	20	0	45	0	0
CrawlerTractors	CAT D7G Bulldozer	-	111.50	69.30	-	-	23.90	-	-
CrawlerTractors	CAT D9R Dozer	-	-	-	-	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	-	-	-	-	-	-	-
Scrapers	CAT 657 Scraper	-	-	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	161.28	115.20	46.08	-	69.12	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	737.52	370.08	125.12	-	367.44	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	174.36	149.14	61.24	-	90.96	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	306.20	244.96	61.24	-	183.72	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
	Subtotal	-	1,490.86	948.68	293.68	-	735.14	-	-
	Shell Placement Days	0	10	0	0	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CrawlerTractors	CAT D9R Dozer	-	-	-	-	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	-	-	-	-	-	-	-
Scrapers	CAT 657 Scraper	-	-	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
Excavators	Excavator 375L	-	-	-	-	-	-	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	-	-	-	-	-	-	-
OnRoadHaul	Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
Cranes	All terrain 20-T crane	-	-	-	-	-	-	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	-	-	-	-	-	-	-
	Subtotal	-	-	-	-	-	-	-	-
	Crest Pavement Days	0	0	0	0	0	0	0	0
OnRoadHaul	Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
Graders	Motor Grader 160H	-	-	-	-	-	-	-	-
Pavers	CAT AP-800C Asphalt Paver	-	-	-	-	-	-	-	-
PavingEquipment	CAT BG-650 Windrow Elevator	-	-	-	-	-	-	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
	Subtotal	-	-	-	-	-	-	-	-
	Spillway Construction Days	0	0	0	235	250	235	0	0
OnRoadHaul	Concrete Transit Mixer	-	-	-	306.20	306.20	306.20	-	-
OnRoadHaul	Concrete Pump Trucks	-	-	-	122.48	122.48	122.48	-	-
Cranes	All terrain 20-T crane	-	-	-	24.54	24.54	24.54	-	-
CrawlerTractors	CAT D7G Bulldozer	-	-	-	71.70	71.70	71.70	-	-
Scrapers	CAT 657 Scraper	-	-	-	309.60	309.60	309.60	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	-	-	30.32	30.32	30.32	-	-
OnRoadHaul	CAT D350E Articulating Truck	-	-	-	122.48	122.48	122.48	-	-
RubberTiredLoaders	Front End Loader 966F	-	-	-	46.08	46.08	46.08	-	-
OnRoadHaul	End Dump Trucks	-	-	-	367.44	367.44	367.44	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	-	-	61.24	61.24	61.24	-	-
	Subtotal	-	-	-	1,462.08	1,462.08	1,462.08	-	-
	Parapet Wall Construction Days	0	158	94	20	0	45	0	0
Cranes	All terrain 20-T crane	-	343.56	245.40	98.16	-	147.24	-	-
OnRoadHaul	Flatbed Truck for Forms movement	-	428.68	306.20	122.48	-	183.72	-	-
	Subtotal	-	772.24	551.60	220.64	-	330.96	-	-
	Maximum Daily	756.4	2,420.4	1,485.4	1,462.1	1,462.1	1,462.1	-	-

CO	Annual Emissions (tpy)							
	2007	2008	2009	2010	2011	2012	2013	2014
Stripping Days								
CAT D7G Bulldozer	-	0.569	0.855	-	8.604	0.251	-	-
CAT D9 Dozer	0.882	1.115	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.573	0.852	-	8.294	0.242	-	-
CAT D350E Articulated Truck	25.108	33.770	4.532	-	44.093	1.286	-	-
CAT 375 Excavator	1.282	1.564	-	-	-	-	-	-
CAT 160H Motor Grader with ripper	1.228	2.215	1.109	-	-	0.315	-	-
Water Truck	2.511	3.889	2.266	-	-	0.643	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Subtotal	31.01	43.69	9.61	-	60.99	2.74	-	-
Shell Excavation Days								
CAT D7G Bulldozer	-	0.301	0.855	-	-	0.251	-	-
CAT D9 Dozer	-	-	-	-	-	-	-	-
CAT D11 Dozer	-	3.345	5.775	4.780	-	-	-	-
CAT 657 Scraper	-	46.440	77.400	61.920	-	-	-	-
CAT 160H Motor Grader with ripper	-	2.247	3.745	2.996	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.380	0.852	-	-	0.242	-	-
CAT D350E Articulated Truck	-	1.653	4.532	-	-	1.286	-	-
Drill rig	-	9.582	20.210	15.384	-	-	-	-
Water truck	-	9.186	15.310	12.248	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Subtotal	-	73.13	128.68	97.33	-	1.78	-	-
Crest Replacement Days								
CAT D7G Bulldozer	-	2.431	0.855	-	-	0.299	-	-
CAT D9R Dozer	-	-	-	-	-	-	-	-
CAT D11 Dozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	2.972	1.313	0.461	-	0.518	-	-
CAT D350E Articulated Truck	-	14.602	4.436	1.251	-	2.756	-	-
CAT CB-534C Vibratory Compactor	-	2.564	1.697	0.612	-	0.682	-	-
Water Truck	-	4.838	2.878	0.612	-	1.378	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Subtotal	-	27.41	11.18	2.94	-	5.63	-	-
Shell Placement Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9R Dozer	-	-	-	-	-	-	-	-
CAT D11 Dozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
Excavator 375L	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	-	-	-	-	-	-	-
Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
All terrain 20-T crane	-	-	-	-	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-
Crest Pavement Days								
Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
Motor Grader 160H	-	-	-	-	-	-	-	-
CAT AP-800C Asphalt Paver	-	-	-	-	-	-	-	-
CAT BG-650 Windrow Elevator	-	-	-	-	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-
Spillway Construction Days								
Concrete Transit Mixer	-	-	-	35.979	38.275	35.979	-	-
Concrete Pump Trucks	-	-	-	14.391	15.310	14.391	-	-
All terrain 20-T crane	-	-	-	2.883	3.068	2.883	-	-
CAT D7G Bulldozer	-	-	-	8.425	8.963	8.425	-	-
CAT 657 Scraper	-	-	-	36.378	38.700	36.378	-	-
CAT CB-534C Vibratory Compactor	-	-	-	3.563	3.790	3.563	-	-
CAT D350E Articulating Truck	-	-	-	14.391	15.310	14.391	-	-
Front End Loader 966F	-	-	-	5.414	5.760	5.414	-	-
End Dump Trucks	-	-	-	43.174	45.930	43.174	-	-
Water Truck	-	-	-	7.196	7.655	7.196	-	-
Subtotal	-	-	-	171.79	182.76	171.79	-	-
Parapet Wall Construction Days								
All terrain 20-T crane	-	6.331	2.798	0.982	-	1.104	-	-
Flatbed Truck for Forms movement	-	7.900	3.491	1.225	-	1.378	-	-
-	-	14.23	6.29	2.21	-	2.48	-	
Annual Total	31.012	158.467	155.759	274.266	243.751	184.425	-	-

	Annual Emissions (tpy)							
	2007	2008	2009	2010	2011	2012	2013	2014
BoreDrillRigs	-	9.582	20.210	15.384	-	-	-	-
Cranes	-	6.331	2.798	3.865	3.068	3.988	-	-
CrawlerTractors	0.882	7.760	8.339	13.205	17.567	9.225	-	-
Excavators	1.282	1.564	-	-	-	-	-	-
Graders	1.228	4.462	4.854	2.996	-	0.315	-	-
OffHighwayTractorsCompactors	-	2.564	1.697	4.175	3.790	4.245	-	-
OffHighwayTrucksWaterTrucks	2.511	17.913	20.454	20.056	7.655	9.217	-	-
OnRoadHaul	25.108	57.925	16.990	110.412	158.918	114.641	-	-
Pavers	-	-	-	-	-	-	-	-
PavingEquipment	-	-	-	-	-	-	-	-
RubberTiredLoaders	-	3.925	3.018	5.875	14.054	6.417	-	-
Scrapers	-	46.440	77.400	98.298	38.700	36.378	-	-
	31.012	158.467	155.759	274.266	243.751	184.425	-	-

		ROG	Daily Emission (lbs/day)						
		2007	2008	2009	2010	2011	2012	2013	2014
	Stripping Days	82	127	74	0	360	21	0	0
CrawlerTractors	CAT D7G Bulldozer	-	20.30	8.70	-	5.80	8.70	-	-
CrawlerTractors	CAT D9 Dozer	2.90	2.90	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	19.30	8.10	-	5.40	8.10	-	-
OnRoadHaul	CAT D350E Articulated Truck	72.00	173.12	43.20	-	28.80	43.20	-	-
Excavators	CAT 375 Excavator	3.68	3.68	-	-	-	-	-	-
Graders	CAT 160H Motor Grader with ripper	3.52	24.80	10.56	-	-	10.56	-	-
OffHighwayTrucksWaterTrucks	Water Truck	7.20	43.20	21.60	-	-	21.60	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
	Subtotal	89.30	287.30	92.16	-	40.00	92.16	-	-
	Shell Excavation Days	0	177	324	200	0	21	0	0
CrawlerTractors	CAT D7G Bulldozer	-	14.50	8.70	-	-	8.70	-	-
CrawlerTractors	CAT D9 Dozer	-	-	-	-	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	5.80	5.80	5.80	-	-	-	-
Scrapers	CAT 657 Scraper	-	72.80	72.80	72.80	-	-	-	-
Graders	CAT 160H Motor Grader with ripper	-	3.52	3.52	3.52	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	14.32	8.10	-	-	8.10	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	72.00	43.20	-	-	43.20	-	-
BoreDrillRigs	Drill rig	-	15.04	19.04	18.08	-	-	-	-
OffHighwayTrucksWaterTrucks	Water truck	-	14.40	14.40	14.40	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
	Subtotal	-	212.38	175.56	114.60	-	60.00	-	-
	Crest Replacement Days	0	158	94	20	0	45	0	0
CrawlerTractors	CAT D7G Bulldozer	-	14.50	8.70	-	-	2.90	-	-
CrawlerTractors	CAT D9R Dozer	-	-	-	-	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	-	-	-	-	-	-	-
Scrapers	CAT 657 Scraper	-	-	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	18.90	13.50	5.40	-	8.10	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	86.72	43.52	14.72	-	43.20	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	21.92	18.24	7.20	-	11.04	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	36.00	28.80	7.20	-	21.60	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
	Subtotal	-	178.04	112.76	34.52	-	86.84	-	-
	Shell Placement Days	0	10	0	0	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CrawlerTractors	CAT D9R Dozer	-	-	-	-	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	-	-	-	-	-	-	-
Scrapers	CAT 657 Scraper	-	-	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
Excavators	Excavator 375L	-	-	-	-	-	-	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	-	-	-	-	-	-	-
OnRoadHaul	Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
Cranes	All terrain 20-T crane	-	-	-	-	-	-	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	-	-	-	-	-	-	-
	Subtotal	-	-	-	-	-	-	-	-
	Crest Pavement Days	0	0	0	0	0	0	0	0
OnRoadHaul	Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
Graders	Motor Grader 160H	-	-	-	-	-	-	-	-
Pavers	CAT AP-800C Asphalt Paver	-	-	-	-	-	-	-	-
PavingEquipment	CAT BG-650 Windrow Elevator	-	-	-	-	-	-	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
	Subtotal	-	-	-	-	-	-	-	-
	Spillway Construction Days	0	0	0	235	250	235	0	0
OnRoadHaul	Concrete Transit Mixer	-	-	-	36.00	36.00	36.00	-	-
OnRoadHaul	Concrete Pump Trucks	-	-	-	14.40	14.40	14.40	-	-
Cranes	All terrain 20-T crane	-	-	-	2.88	2.88	2.88	-	-
CrawlerTractors	CAT D7G Bulldozer	-	-	-	8.70	8.70	8.70	-	-
Scrapers	CAT 657 Scraper	-	-	-	36.40	36.40	36.40	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	-	-	3.68	3.68	3.68	-	-
OnRoadHaul	CAT D350E Articulating Truck	-	-	-	14.40	14.40	14.40	-	-
RubberTiredLoaders	Front End Loader 966F	-	-	-	5.40	5.40	5.40	-	-
OnRoadHaul	End Dump Trucks	-	-	-	43.20	43.20	43.20	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	-	-	7.20	7.20	7.20	-	-
	Subtotal	-	-	-	172.26	172.26	172.26	-	-
	Parapet Wall Construction Days	0	158	94	20	0	45	0	0
Cranes	All terrain 20-T crane	-	40.32	28.80	11.52	-	17.28	-	-
OnRoadHaul	Flatbed Truck for Forms movement	-	50.40	36.00	14.40	-	21.60	-	-
	Subtotal	-	90.72	64.80	25.92	-	38.88	-	-
	Maximum Daily	89.3	287.3	175.6	172.3	172.3	172.3	-	-

ROG	Annual Emissions (tpy)							
	2007	2008	2009	2010	2011	2012	2013	2014
Stripping Days								
CAT D7G Bulldozer	-	0.074	0.107	-	1.044	0.030	-	-
CAT D9 Dozer	0.119	0.145	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.073	0.100	-	0.972	0.028	-	-
CAT D350E Articulated Truck	2.952	3.970	0.533	-	5.184	0.151	-	-
CAT 375 Excavator	0.151	0.184	-	-	-	-	-	-
CAT 160H Motor Grader with ripper	0.144	0.260	0.130	-	-	0.037	-	-
Water Truck	0.295	0.457	0.266	-	-	0.076	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Subtotal	3.66	5.16	1.14	-	7.20	0.32	-	-
Shell Excavation Days								
CAT D7G Bulldozer	-	0.039	0.107	-	-	0.030	-	-
CAT D9 Dozer	-	-	-	-	-	-	-	-
CAT D11 Dozer	-	0.435	0.725	0.580	-	-	-	-
CAT 657 Scraper	-	5.460	9.100	7.280	-	-	-	-
CAT 160H Motor Grader with ripper	-	0.264	0.440	0.352	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.045	0.100	-	-	0.028	-	-
CAT D350E Articulated Truck	-	0.194	0.533	-	-	0.151	-	-
Drill rig	-	1.128	2.380	1.808	-	-	-	-
Water truck	-	1.080	1.800	1.440	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Subtotal	-	8.65	15.19	11.46	-	0.21	-	-
Crest Replacement Days								
CAT D7G Bulldozer	-	0.316	0.107	-	-	0.036	-	-
CAT D9R Dozer	-	-	-	-	-	-	-	-
CAT D11 Dozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.348	0.154	0.054	-	0.061	-	-
CAT D350E Articulated Truck	-	1.717	0.522	0.147	-	0.324	-	-
CAT CB-534C Vibratory Compactor	-	0.326	0.208	0.072	-	0.083	-	-
Water Truck	-	0.569	0.338	0.072	-	0.162	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Subtotal	-	3.28	1.33	0.35	-	0.67	-	-
Shell Placement Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9R Dozer	-	-	-	-	-	-	-	-
CAT D11 Dozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
Excavator 375L	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	-	-	-	-	-	-	-
Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
All terrain 20-T crane	-	-	-	-	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-
Crest Pavement Days								
Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
Motor Grader 160H	-	-	-	-	-	-	-	-
CAT AP-800C Asphalt Paver	-	-	-	-	-	-	-	-
CAT BG-650 Windrow Elevator	-	-	-	-	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-
Spillway Construction Days								
Concrete Transit Mixer	-	-	-	4.230	4.500	4.230	-	-
Concrete Pump Trucks	-	-	-	1.692	1.800	1.692	-	-
All terrain 20-T crane	-	-	-	0.338	0.360	0.338	-	-
CAT D7G Bulldozer	-	-	-	1.022	1.088	1.022	-	-
CAT 657 Scraper	-	-	-	4.277	4.550	4.277	-	-
CAT CB-534C Vibratory Compactor	-	-	-	0.432	0.460	0.432	-	-
CAT D350E Articulating Truck	-	-	-	1.692	1.800	1.692	-	-
Front End Loader 966F	-	-	-	0.635	0.675	0.635	-	-
End Dump Trucks	-	-	-	5.076	5.400	5.076	-	-
Water Truck	-	-	-	0.846	0.900	0.846	-	-
Subtotal	-	-	-	20.24	21.53	20.24	-	-
Parapet Wall Construction Days								
All terrain 20-T crane	-	0.743	0.328	0.115	-	0.130	-	-
Flatbed Truck for Forms movement	-	0.929	0.410	0.144	-	0.162	-	-
-	-	1.67	0.74	0.26	-	0.29	-	
Annual Total	3.661	18.757	18.390	32.305	28.733	21.731	-	-

	Annual Emissions (tpy)							
	2007	2008	2009	2010	2011	2012	2013	2014
BoreDrillRigs	-	1.128	2.380	1.808	-	-	-	-
Cranes	-	0.743	0.328	0.454	0.360	0.468	-	-
CrawlerTractors	0.119	1.009	1.047	1.602	2.132	1.119	-	-
Excavators	0.151	0.184	-	-	-	-	-	-
Graders	0.144	0.524	0.570	0.352	-	0.037	-	-
OffHighwayTractorsCompactors	-	0.326	0.208	0.504	0.460	0.515	-	-
OffHighwayTrucksWaterTrucks	0.295	2.106	2.405	2.358	0.900	1.084	-	-
OnRoadHaul	2.952	6.810	1.998	12.981	18.684	13.478	-	-
Pavers	-	-	-	-	-	-	-	-
PavingEquipment	-	-	-	-	-	-	-	-
RubberTiredLoaders	-	0.466	0.354	0.689	1.647	0.752	-	-
Scrapers	-	5.460	9.100	11.557	4.550	4.277	-	-
	3.661	18.757	18.390	32.305	28.733	21.731	-	-

		PM2.5 Daily Emission (lbs/day)							
		2007	2008	2009	2010	2011	2012	2013	2014
	Stripping Days	82	127	74	0	360	21	0	0
CrawlerTractors	CAT D7G Bulldozer	-	4.51	2.85	-	0.99	1.49	-	-
CrawlerTractors	CAT D9 Dozer	0.72	0.64	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	3.31	2.85	-	0.81	1.21	-	-
OnRoadHaul	CAT D350E Articulated Truck	7.18	19.69	5.70	-	4.27	6.40	-	-
Excavators	CAT 375 Excavator	0.72	0.64	-	-	-	-	-	-
Graders	CAT 160H Motor Grader with ripper	0.72	3.35	2.28	-	-	1.55	-	-
OffHighwayTrucksWaterTrucks	Water Truck	0.72	5.56	2.28	-	-	3.20	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
	Subtotal	10.05	37.70	15.97	-	6.07	13.86	-	-
	Shell Excavation Days	0	177	324	200	0	21	0	0
CrawlerTractors	CAT D7G Bulldozer	-	3.22	2.28	-	-	1.49	-	-
CrawlerTractors	CAT D9 Dozer	-	-	-	-	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	1.29	1.14	0.99	-	-	-	-
Scrapers	CAT 657 Scraper	-	6.44	5.70	4.97	-	-	-	-
Graders	CAT 160H Motor Grader with ripper	-	0.64	0.57	0.50	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	2.26	2.28	-	-	1.21	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	9.83	4.56	-	-	6.40	-	-
BoreDrillRigs	Drill rig	-	2.58	2.28	1.99	-	-	-	-
OffHighwayTrucksWaterTrucks	Water truck	-	1.29	1.14	0.99	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
	Subtotal	-	27.54	19.96	9.44	-	9.11	-	-
	Crest Replacement Days	0	158	94	20	0	45	0	0
CrawlerTractors	CAT D7G Bulldozer	-	3.22	1.71	-	-	0.50	-	-
CrawlerTractors	CAT D9R Dozer	-	-	-	-	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	-	-	-	-	-	-	-
Scrapers	CAT 657 Scraper	-	-	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	3.31	2.85	0.99	-	1.21	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	13.25	4.56	1.99	-	6.40	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	3.88	2.28	0.50	-	1.88	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	4.91	2.28	0.50	-	3.20	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
	Subtotal	-	28.58	13.69	3.97	-	13.19	-	-
	Shell Placement Days	0	10	0	0	0	0	0	0
CrawlerTractors	CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CrawlerTractors	CAT D9R Dozer	-	-	-	-	-	-	-	-
CrawlerTractors	CAT D11 Dozer	-	-	-	-	-	-	-	-
Scrapers	CAT 657 Scraper	-	-	-	-	-	-	-	-
RubberTiredLoaders	CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
Excavators	Excavator 375L	-	-	-	-	-	-	-	-
OnRoadHaul	CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
OffHighwayTrucksWaterTrucks	Quarry Truck 771D	-	-	-	-	-	-	-	-
OnRoadHaul	Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
Cranes	All terrain 20-T crane	-	-	-	-	-	-	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	-	-	-	-	-	-	-
	Subtotal	-	-	-	-	-	-	-	-
	Crest Pavement Days	0	0	0	0	0	0	0	0
OnRoadHaul	Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
Graders	Motor Grader 160H	-	-	-	-	-	-	-	-
Pavers	CAT AP-800C Asphalt Paver	-	-	-	-	-	-	-	-
PavingEquipment	CAT BG-650 Windrow Elevator	-	-	-	-	-	-	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
	Subtotal	-	-	-	-	-	-	-	-
	Spillway Construction Days	0	0	0	235	250	235	0	0
OnRoadHaul	Concrete Transit Mixer	-	-	-	5.34	5.34	5.34	-	-
OnRoadHaul	Concrete Pump Trucks	-	-	-	2.13	2.13	2.13	-	-
Cranes	All terrain 20-T crane	-	-	-	1.07	1.07	1.07	-	-
CrawlerTractors	CAT D7G Bulldozer	-	-	-	3.20	3.20	3.20	-	-
Scrapers	CAT 657 Scraper	-	-	-	5.34	5.34	5.34	-	-
OffHighwayTractorsCompactors	CAT CB-534C Vibratory Compactor	-	-	-	1.07	1.07	1.07	-	-
OnRoadHaul	CAT D350E Articulating Truck	-	-	-	2.13	2.13	2.13	-	-
RubberTiredLoaders	Front End Loader 966F	-	-	-	2.13	2.13	2.13	-	-
OnRoadHaul	End Dump Trucks	-	-	-	6.40	6.40	6.40	-	-
OffHighwayTrucksWaterTrucks	Water Truck	-	-	-	1.07	1.07	1.07	-	-
	Subtotal	-	-	-	29.88	29.88	29.88	-	-
	Parapet Wall Construction Days	0	158	94	20	0	45	0	0
Cranes	All terrain 20-T crane	-	5.92	4.23	1.69	-	2.54	-	-
OnRoadHaul	Flatbed Truck for Forms movement	-	6.18	2.12	0.85	-	3.20	-	-
	Subtotal	-	12.11	6.35	2.54	-	5.74	-	-
	Maximum Daily	10.0	37.7	20.0	29.9	29.9	29.9	-	-

PM2.5	Annual Emissions (tpy)							
	2007	2008	2009	2010	2011	2012	2013	2014
Stripping Days								
CAT D7G Bulldozer	-	0.016	0.021	-	0.179	0.005	-	-
CAT D9 Dozer	0.029	0.032	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.015	0.021	-	0.146	0.004	-	-
CAT D350E Articulated Truck	0.294	0.359	0.042	-	0.768	0.022	-	-
CAT 375 Excavator	0.029	0.032	-	-	-	-	-	-
CAT 160H Motor Grader with ripper	0.029	0.040	0.021	-	-	0.005	-	-
Water Truck	0.029	0.042	0.021	-	-	0.011	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Subtotal	0.41	0.54	0.13	-	1.09	0.05	-	-
Shell Excavation Days								
CAT D7G Bulldozer	-	0.009	0.021	-	-	0.005	-	-
CAT D9 Dozer	-	-	-	-	-	-	-	-
CAT D11 Dozer	-	0.097	0.143	0.099	-	-	-	-
CAT 657 Scraper	-	0.483	0.713	0.497	-	-	-	-
CAT 160H Motor Grader with ripper	-	0.048	0.071	0.050	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.008	0.021	-	-	0.004	-	-
CAT D350E Articulated Truck	-	0.020	0.042	-	-	0.022	-	-
Drill rig	-	0.193	0.285	0.199	-	-	-	-
Water truck	-	0.097	0.143	0.099	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Subtotal	-	0.95	1.44	0.94	-	0.03	-	-
Crest Replacement Days								
CAT D7G Bulldozer	-	0.070	0.021	-	-	0.006	-	-
CAT D9R Dozer	-	-	-	-	-	-	-	-
CAT D11 Dozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	0.057	0.033	0.010	-	0.009	-	-
CAT D350E Articulated Truck	-	0.258	0.052	0.020	-	0.048	-	-
CAT CB-534C Vibratory Compactor	-	0.062	0.027	0.005	-	0.014	-	-
Water Truck	-	0.080	0.027	0.005	-	0.024	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Subtotal	-	0.53	0.16	0.04	-	0.10	-	-
Shell Placement Days								
CAT D7G Bulldozer	-	-	-	-	-	-	-	-
CAT D9R Dozer	-	-	-	-	-	-	-	-
CAT D11 Dozer	-	-	-	-	-	-	-	-
CAT 657 Scraper	-	-	-	-	-	-	-	-
CAT 966F Series II Wheel Loader	-	-	-	-	-	-	-	-
Excavator 375L	-	-	-	-	-	-	-	-
CAT D350E Articulated Truck	-	-	-	-	-	-	-	-
Quarry Truck 771D	-	-	-	-	-	-	-	-
Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
All terrain 20-T crane	-	-	-	-	-	-	-	-
Water Truck	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-
Crest Pavement Days								
Belly Dump Truck C12 Engine	-	-	-	-	-	-	-	-
Motor Grader 160H	-	-	-	-	-	-	-	-
CAT AP-800C Asphalt Paver	-	-	-	-	-	-	-	-
CAT BG-650 Windrow Elevator	-	-	-	-	-	-	-	-
CAT CB-534C Vibratory Compactor	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-
Spillway Construction Days								
Concrete Transit Mixer	-	-	-	0.627	0.667	0.627	-	-
Concrete Pump Trucks	-	-	-	0.251	0.267	0.251	-	-
All terrain 20-T crane	-	-	-	0.125	0.133	0.125	-	-
CAT D7G Bulldozer	-	-	-	0.376	0.400	0.376	-	-
CAT 657 Scraper	-	-	-	0.627	0.667	0.627	-	-
CAT CB-534C Vibratory Compactor	-	-	-	0.125	0.133	0.125	-	-
CAT D350E Articulating Truck	-	-	-	0.251	0.267	0.251	-	-
Front End Loader 966F	-	-	-	0.251	0.267	0.251	-	-
End Dump Trucks	-	-	-	0.752	0.800	0.752	-	-
Water Truck	-	-	-	0.125	0.133	0.125	-	-
Subtotal	-	-	-	3.51	3.74	3.51	-	-
Parapet Wall Construction Days								
All terrain 20-T crane	-	0.109	0.048	0.017	-	0.019	-	-
Flatbed Truck for Forms movement	-	0.125	0.024	0.008	-	0.024	-	-
Subtotal	-	0.23	0.07	0.03	-	0.04	-	-
Annual Total	0.412	2.255	1.798	4.520	4.828	3.736	-	-

	Annual Emissions (tpy)							
	2007	2008	2009	2010	2011	2012	2013	2014
BoreDrillRigs	-	0.193	0.285	0.199	-	-	-	-
Cranes	-	0.109	0.048	0.142	0.133	0.144	-	-
CrawlerTractors	0.029	0.224	0.206	0.476	0.579	0.393	-	-
Excavators	0.029	0.032	-	-	-	-	-	-
Graders	0.029	0.089	0.092	0.050	-	0.005	-	-
OffHighwayTractorsCompactors	-	0.062	0.027	0.130	0.133	0.139	-	-
OffHighwayTrucksWaterTrucks	0.029	0.219	0.191	0.230	0.133	0.161	-	-
OnRoadHaul	0.294	0.763	0.161	1.909	2.769	1.998	-	-
Pavers	-	-	-	-	-	-	-	-
PavingEquipment	-	-	-	-	-	-	-	-
RubberTiredLoaders	-	0.080	0.075	0.261	0.413	0.268	-	-
Scrapers	-	0.483	0.713	1.124	0.667	0.627	-	-
	0.412	2.255	1.798	4.520	4.828	3.736	-	-

			Unmitigated Daily Emissions (lbs/day)					Mitigated Daily Emissions (lbs/day)				
Schedule	No. of Years	days		Total PM10	Exhaust PM10	Dust PM10	Total PM2.5		Total PM10	Exhaust PM10	Dust PM10	Total PM2.5
na	0	0	Auxiliary Spillway Excavation	0	0	0	0.00	Auxiliary Spillway Excavation	0	0	0	0.00
2009-2011	3	720	Auxiliary Fuseplug Spillway Construction	571.54	0.68	570.86	118.79	Auxiliary Fuseplug Spillway Construction	8.78	0.01	85.63	1.82
na	0	0	Tunnel Excavation	0	0	0	0.00	Tunnel Excavation	0	0	0	0.00
na	0	0	Tunnel Construction	0	0	0	0.00	Tunnel Construction	0	0	0	0.00
2007-2013	7	720	Main Dam Construction	0.00	0.00	0.00	0.00	Main Dam Construction	0.00	0.00	0.00	0.00
na	0	0	Dike 1	3.79	0	3.79	0.79	Dike 1	0.57	0	0.57	0.12
na	0	0	Dike 2	8.32	0.64	7.68	1.73	Dike 2	1.16	0.01	1.15	0.24
na	0	0	Dike 3	2.77	0	2.77	0.58	Dike 3	0.41	0	0.41	0.09
na	0	0	Mooney Ridge				0.00	Mooney Ridge				0.00
2013	1	20	Dike 4	5.24	0.00	5.24	1.09	Dike 4	0.78	0.00	0.78	0.16
2008	1	180	Dike 5	3.50	0.00	3.50	0.73	Dike 5	0.52	0.00	0.52	0.11
2008	1	65	Dike 6	3.22	0.00	3.22	0.67	Dike 6	0.48	0.00	0.48	0.10
2009-2010	2	580	RWD	3.53	0.00	3.53	0.73	RWD	0.53	0.00	0.53	0.11
2012	1	240	LWD	1.28	0.00	1.28	0.27	LWD	0.19	0.00	0.19	0.04
na	0	0	Dike 7	2.74	0	2.74	0.57	Dike 7	0.41	0	0.41	0.09
na	0	0	Dike 8	5.45	0	5.45	1.13	Dike 8	0.81	0	0.81	0.17
2008-2010	3	360	MIAD	4.12	0.00	4.12	0.86	MIAD	0.61	0.00	0.61	0.13
				Unmitigated lbs/day					Mitigated lbs/day			
			2007	0	0	0	0.00	2007	0	0	0	0.00
			2008	10.84	0.00	10.84	2.25	2008	1.61	0.00	1.61	0.33
			2009	579.19	0.68	578.51	120.38	2009	9.92	0.01	86.77	2.06
			2010	579.19	0.68	578.51	120.38	2010	9.92	0.01	86.77	2.06
			2011	571.54	0.68	570.86	118.79	2011	8.78	0.01	85.63	1.82
			2012	1.28	0.00	1.28	0.27	2012	0.19	0.00	0.19	0.04
			2013	5.24	0.00	5.24	1.09	2013	0.78	0.00	0.78	0.16
			2014	0	0	0	0.00	2014	0	0	0	0.00
			Unmitigated Annual Emissions (tons/year)					Mitigated Annual Emissions (tons/year)				
Schedule	No. of Years	days		Total PM10	Exhaust PM10	Dust PM10			Total PM10	Exhaust PM10	Dust PM10	
na	0	0	Auxiliary Spillway Excavation	0	0	0	0.00	Auxiliary Spillway Excavation	0	0	0	0.00
2009-2011	3	720	Auxiliary Fuseplug Spillway Construction	68.58	0.08	68.50	14.26	Auxiliary Fuseplug Spillway Construction	1.05	0.00	10.28	0.22
na	0	0	Tunnel Excavation	0	0	0	0.00	Tunnel Excavation	0	0	0	0.00
na	0	0	Tunnel Construction	0	0	0	0.00	Tunnel Construction	0	0	0	0.00
2007-2013	7	720	Main Dam Construction	0.00	0.00	0.00	0.00	Main Dam Construction	0.00	0.00	0.00	0.00
na	0	0	Dike 1	0	0	0	0.00	Dike 1	0	0	0	0.00
na	0	0	Dike 2	0	0	0	0.00	Dike 2	0	0	0	0.00
na	0	0	Dike 3	0	0	0	0.00	Dike 3	0	0	0	0.00
na	0	0	Mooney Ridge	0	0	0	0.00	Mooney Ridge	0	0	0	0.00
2013	1	20	Dike 4	0.05	0.00	0.05	0.01	Dike 4	0.01	0.00	0.01	0.00
2008	1	180	Dike 5	0.32	0.00	0.32	0.07	Dike 5	0.05	0.00	0.05	0.01
2008	1	65	Dike 6	0.10	0.00	0.10	0.02	Dike 6	0.02	0.00	0.02	0.00
2009-2010	2	580	RWD	0.51	0.00	0.51	0.11	RWD	0.08	0.00	0.08	0.02
2012	1	240	LWD	0.15	0.00	0.15	0.03	LWD	0.02	0.00	0.02	0.00
na	0	0	Dike 7	0	0	0	0.00	Dike 7	0	0	0	0.00
na	0	0	Dike 8	0	0	0	0.00	Dike 8	0	0	0	0.00
2008-2010	3	360	MIAD	0.25	0.00	0.25	0.05	MIAD	0.04	0.00	0.04	0.01
				Unmitigated t/y					Mitigated t/y			
			2007	0	0	0	0.00	2007	0	0	0	0.00
			2008	0.67	0.00	0.67	0.14	2008	0.10	0.00	0.10	0.02
			2009	69.34	0.08	69.26	14.41	2009	1.17	0.00	10.39	0.24
			2010	69.34	0.08	69.26	14.41	2010	1.17	0.00	10.39	0.24
			2011	68.58	0.08	68.50	14.26	2011	1.05	0.00	10.28	0.22
			2012	0.15	0.00	0.15	0.03	2012	0.02	0.00	0.02	0.00
			2013	0.05	0.00	0.05	0.01	2013	0.01	0.00	0.01	0.00
			2014	0	0	0	0.00	2014	0	0	0	0.00

Model Matrix

Model Name	Alternative	Met Data	Pollutant	Avg. Period	Mitigation?	Grid	Construction Year	Model Date	Additional Comments
A1MNO2	1	1987	NO2	1-hr	Yes	Coarse	2009	10/25/2006	Complete
A1MNO2b	1	1988	NO2	Annual	Yes	Coarse	2009	10/25/2006	Complete
A1MNO2c	1	1987	NO2	1-hr	Yes	Fine	2009	10/25/2006	Complete
A1MNO2d	1	1988	NO2	Annual	Yes	Fine	2009	10/25/2006	Complete
A1MPM10c	1	1985	PM10	24-hr	Yes	Coarse/Fine	2009	10/25/2006	Complete
A1MPM10d	1	1988	PM10	Annual	Yes	Coarse	2009	10/25/2006	Complete
A1MPM10f	1	1988	PM10	Annual	Yes	Fine	2009	10/26/2006	Complete
A1MPM25c	1	1985	PM2.5	24-hr/Annual	Yes	Coarse	2009	11/1/2006	Complete
A1MPM25d	1	1986	PM2.5	24-hr/Annual	Yes	Coarse	2009	11/1/2006	Complete
A1MPM25e	1	1987	PM2.5	24-hr/Annual	Yes	Coarse	2009	11/1/2006	Complete
A1MPM25f	1	1985	PM2.5	24-hr/Annual	Yes	Fine	2009	11/2/2006	Complete
A1MPM25g	1	1986	PM2.5	24-hr/Annual	Yes	Fine	2009	11/2/2006	Complete
A1MPM25h	1	1987	PM2.5	24-hr/Annual	Yes	Fine	2009	11/2/2006	Complete
A1UNO2	1	1987	NO2	1-hr	No	Coarse	2009	10/25/2006	Complete
A1UNO2b	1	1988	NO2	Annual	No	Coarse	2009	10/25/2006	Complete
A1UNO2c	1	1987	NO2	1-hr	No	Fine	2009	10/26/2006	Complete
A1UNO2d	1	1988	NO2	Annual	No	Fine	2009	10/26/2006	Complete
A1UPM10	1	1985	PM10	24-hr	No	Coarse	2009	10/25/2006	Complete
A1UPM10b	1	1988	PM10	Annual	No	Coarse	2009	10/25/2006	Complete
A1UPM10c	1	1985	PM10	24-hr	No	Fine	2009	10/26/2006	Complete
A1UPM10d	1	1988	PM10	Annual	No	Fine	2009	10/26/2006	Complete
A1UPM25	1	1985	PM2.5	24-hr/Annual	No	Coarse	2009	10/31/2006	Complete
A1UPM25b	1	1986	PM2.5	24-hr/Annual	No	Coarse	2009	10/31/2006	Complete
A1UPM25c	1	1987	PM2.5	24-hr/Annual	No	Coarse	2009	10/31/2006	Complete
A1UPM25e	1	1985	PM2.5	24-hr/Annual	No	Fine	2009	11/1/2006	Complete
A1UPM25f	1	1986	PM2.5	24-hr/Annual	No	Fine	2009	11/1/2006	Complete
A1UPM25g	1	1987	PM2.5	24-hr/Annual	No	Fine	2009	11/1/2006	Complete
A3MNO2	3	1987	NO2	1-hr	Yes	Coarse/Fine	2008	10/27/2006	Complete
A3MNO2b	3	1988	NO2	Annual	Yes	Coarse/Fine	2008	10/27/2006	Complete
A3MPM10	3	1985	PM10	24-hr	Yes	Coarse	2009	10/26/2006	Complete
A3MPM10b	3	1985	PM10	24-hr	Yes	Coarse	2009	10/26/2006	Complete
A3MPM10c	3	1988	PM10	Annual	Yes	Fine	2009	10/27/2006	Complete
A3MPM10d	3	1988	PM10	Annual	Yes	Fine	2009	10/27/2006	Complete
A3MPM25	3	1985	PM2.5	24-hr/Annual	Yes	Coarse	2009	11/1/2006	Complete
A3MPM25b	3	1986	PM2.5	24-hr/Annual	Yes	Coarse	2009	11/1/2006	Complete
A3MPM25c	3	1987	PM2.5	24-hr/Annual	Yes	Coarse	2009	11/1/2006	Complete
A3MPM25d	3	1985	PM2.5	24-hr/Annual	Yes	Fine	2009	11/2/2006	Complete
A3MPM25e	3	1986	PM2.5	24-hr/Annual	Yes	Fine	2009	11/2/2006	Complete
A3MPM25f	3	1987	PM2.5	24-hr/Annual	Yes	Fine	2009	11/2/2006	Complete
A3UNO2	3	1987	NO2	1-hr	No	Coarse/Fine	2008	10/27/2006	Complete
A3UNO2b	3	1988	NO2	Annual	No	Coarse/Fine	2008	10/27/2006	Complete
A3UPM10	3	1985	PM10	24-hr	No	Coarse	2009	10/26/2006	Complete
A3UPM10b	3	1988	PM10	Annual	No	Coarse	2009	10/26/2006	Complete
A3UPM10c	3	1985	PM10	24-hr	No	Fine	2009	10/27/2006	Complete
A3UPM10d	3	1988	PM10	Annual	No	Fine	2009	10/27/2006	Complete
A3UPM25	3	1985	PM2.5	24-hr/Annual	No	Coarse	2009	11/1/2006	Complete
A3UPM25b	3	1986	PM2.5	24-hr/Annual	No	Coarse	2009	11/1/2006	Complete
A3UPM25c	3	1987	PM2.5	24-hr/Annual	No	Coarse	2009	11/1/2006	Complete
A3UPM25d	3	1985	PM2.5	24-hr/Annual	No	Fine	2009	11/2/2006	Complete
A3UPM25e	3	1986	PM2.5	24-hr/Annual	No	Fine	2009	11/2/2006	Complete
A3UPM25f	3	1987	PM2.5	24-hr/Annual	No	Fine	2009	11/2/2006	Complete

Alternative 3: Onroad Haul changed to Off Highway

Model Name	Alternative	Met Data	Pollutant	Avg. Period	Mitigation?	Grid	Construction Year	Model Date	Additional Comments
A3MNO2Ra	3	1987	NO2	1-hr	Yes	Coarse	2008	10/30/2006	Complete
A3MNO2Rb	3	1988	NO2	Annual	Yes	Coarse	2008	10/30/2006	Complete
A3MNO2Rc	3	1987	NO2	1-hr	Yes	Coarse/Fine	2008	10/30/2006	Complete
A3MNO2Rd	3	1988	NO2	Annual	Yes	Fine	2008	10/31/2006	Complete
A3UNO2Ra	3	1987	NO2	1-hr	No	Coarse	2008	10/30/2006	Complete
A3UNO2Rb	3	1988	NO2	Annual	No	Coarse	2008	10/30/2006	Complete
A3UNO2Rc	3	1987	NO2	1-hr	No	Fine	2008	10/31/2006	Complete
A3UNO2Rd	3	1988	NO2	Annual	No	Fine	2008	10/31/2006	Complete

Note:
Coarse grid spacing = 500 m
Fine grid spacing = 50 m, 11 x 11

Comparison of Modeled Concentrations to NAAQS Standard										
	Modeled Concentration					Modeled Concentration with Background				
Pollutant	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
NO2										
Annual	8.41		7.26			27.06		26.20		
PM10										
24-Hr	63.93		44.71			122.93		103.71		
Annual	3.35		2.39			25.35		24.39		
PM2.5										
24-Hr	9.04		7.65			71.04		69.65		
Annual	1.22		0.91			13.42		13.11		

Notes:

1-Modeled concentration for NO2 is shown as NOx. NO2/NOx ratio of 0.75 applied to modeled concentration for results shown with background.
2-24-Hour average for PM10 reported as the H2H.
3-24-Hour average for PM2.5 reported as the H8H averaged over three years; this method approximates the 98th percentile.
4-Annual average for PM2.5 reported as the maximum annual average over three years of meteorological data (1985, 1986, and 1987).
5-Sacramento-Del Paso Manor monitoring station used for background concentrations (years 2003, 2004, 2005).
6-Background concentration for NOx: 20.8 ug/m3 (Annual)
7-Background concentration for PM10: 59 ug/m3 (24-hr) and 22 ug/m3 (Annual)
8-Background concentration for PM2.5: 62 ug/m3 (24-hr) and 12.2 ug/m3 (Annual)

Red text: Concentration exceeds NAAQS or CAAQS.

Alternative 1, Mitigated, 2009, PM10								
			Peak (ug/m3)					
			Model	w/background		Location		
Source Group	Avg. Period	Grid	Results	CA	EPA	X	Y	Comments
ALL	24-hr	Coarse	44	121	103	658867.44	4285746	H2H
ALL	24-hr	Fine	64	141	123	659367.44	4285646	H2H
ROADS	24-hr	Fine	2.6	80	62	659117.44	4286246	H2H
AUXSPILL	24-hr	Fine	45	122	104	659367.44	4285646	H2H
BORROW3	24-hr	Fine	3.7	81	63	659317.44	4286246	H2H
CONPROC1	24-hr	Fine	18	95	77	660367.44	4284746	H2H
LWD	24-hr	Fine	4.8	82	64	660367.44	4285246	H2H
MAINDAM	24-hr	Fine	1.0	78	60	659367.44	4286046	H2H
MIAD	24-hr	Fine	21	98	80	663867.44	4284746	H2H
PROCESS4	24-hr	Fine	3.1	80	62	658867.44	4287246	H2H
PROCESS5	24-hr	Fine	1.8	79	61	662367.44	4283746	H2H
RWD	24-hr	Fine	22	99	81	659217.44	4286246	H2H
COFFER	24-hr	Fine	8.2	85	67	660867.44	4284746	H2H
ALL	Annual	Coarse	3	29	25	658867.44	4287246	none
ALL	Annual	Fine	3	29	25	658967.44	4287346	none
ROADS	Annual	Fine	0.1	26	22	658967.44	4287346	none
AUXSPILL	Annual	Fine	0	26	22	658717.44	4287746	none
BORROW3	Annual	Fine	0.3	26	22	658867.44	4287746	none
CONPROC1	Annual	Fine	0	26	22	658817.44	4286896	none
LWD	Annual	Fine	0.1	26	22	658717.44	4287746	none
MAINDAM	Annual	Fine	0.0	26	22	658967.44	4287396	none
MIAD	Annual	Fine	0	26	22	658867.44	4287746	none
PROCESS4	Annual	Fine	0.4	26	22	658967.44	4287346	none
PROCESS5	Annual	Fine	0.0	26	22	658917.44	4287046	none
RWD	Annual	Fine	2	28	24	658917.44	4287196	none
COFFER	Annual	Fine	0.1	26	22	658917.44	4286996	none

Alternative 1, Unmitigated, 2009, PM10								
			Peak (ug/m3)					
			Model	w/background		Location		
Source Group	Avg. Period	Grid	Results	CA	EPA	X	Y	Comments
ALL	24-hr	Coarse	72	149	131	658867.44	4285746	H2H
ALL	24-hr	Fine	110	187	169	659367.44	4285646	H2H
ROADS	24-hr	Fine	2.6	80	62	659117.44	4286246	H2H
AUXSPILL	24-hr	Fine	81	158	140	659367.44	4285646	H2H
BORROW3	24-hr	Fine	14.7	92	74	659317.44	4286246	H2H
CONPROC1	24-hr	Fine	14	91	73	659367.44	4285696	H2H
LWD	24-hr	Fine	9.0	86	68	659317.44	4285646	H2H
MAINDAM	24-hr	Fine	2.1	79	61	659367.44	4286046	H2H
MIAD	24-hr	Fine	10	87	69	659367.44	4285696	H2H
PROCESS4	24-hr	Fine	1.7	79	61	659317.44	4286246	H2H
PROCESS5	24-hr	Fine	0.6	78	60	659367.44	4286246	H2H
RWD	24-hr	Fine	45	122	104	659217.44	4286246	H2H
COFFER	24-hr	Fine	10.8	88	70	659367.44	4286196	H2H
ALL	Annual	Coarse	5	31	27	658867.44	4287246	none
ALL	Annual	Fine	7	33	29	658967.44	4287346	none
ROADS	Annual	Fine	0.1	26	22	658967.44	4287346	none
AUXSPILL	Annual	Fine	1	27	23	658717.44	4287746	none
BORROW3	Annual	Fine	1.4	27	23	658867.44	4287746	none
CONPROC1	Annual	Fine	0	26	22	658817.44	4286896	none
LWD	Annual	Fine	0.2	26	22	658717.44	4287746	none
MAINDAM	Annual	Fine	0.0	26	22	658967.44	4287396	none
MIAD	Annual	Fine	0	26	22	658867.44	4287746	none
PROCESS4	Annual	Fine	0.4	26	22	658967.44	4287346	none
PROCESS5	Annual	Fine	0.0	26	22	658917.44	4287046	none
RWD	Annual	Fine	4	30	26	658917.44	4287196	none
COFFER	Annual	Fine	0.2	26	22	658917.44	4286996	none

PM10 Background (ug/m3)

Avg. Period	CA	EPA
24-hr	77	59
Annual	26	22

Standard (ug/m3)

Avg. Period	CA	EPA
24-hr	50	150
Annual	20	50

Red text: Concentration exceeds NAAQS or CAAQS.

Alternative 1, Mitigated, 2009, PM2.5								
			Peak (ug/m3)					
			Model	w/background		Location		
Source Group	Avg. Period	Grid	Results	CA	EPA	X	Y	Comments
ALL	24-hr	Coarse	5.8	--	68	660367.44	4285246	H8H
ALL	24-hr	Fine	9.0	--	71	660567.44	4285246	H8H
ROADS	24-hr	Fine	0.1	--	62	660567.44	4285246	H8H
AUXSPILL	24-hr	Fine	4.3	--	66	660567.44	4285246	H8H
BORROW3	24-hr	Fine	0.0	--	62	660117.44	4284996	H8H
CONPROC1	24-hr	Fine	5.1	--	67	660567.44	4285146	H8H
LWD	24-hr	Fine	0.8	--	63	660567.44	4285246	H8H
MAINDAM	24-hr	Fine	0.1	--	62	660217.44	4285346	H8H
MIAD	24-hr	Fine	0.3	--	62	660567.44	4285246	H8H
PROCESS4	24-hr	Fine	0.0	--	62	660517.44	4285246	H8H
PROCESS5	24-hr	Fine	0.0	--	62	660517.44	4285046	H8H
RWD	24-hr	Fine	0.2	--	62	660117.44	4285346	H8H
COFFER	24-hr	Fine	0.5	--	63	660567.44	4285146	H8H
ALL	Annual	Coarse	0.8	13	13	660367.44	4285246	none
ALL	Annual	Fine	1.2	13	13	660567.44	4285246	none
ROADS	Annual	Fine	0.0	12	12	660567.44	4285246	none
AUXSPILL	Annual	Fine	0.6	13	13	660567.44	4285246	none
BORROW3	Annual	Fine	0.0	12	12	660117.44	4285296	none
CONPROC1	Annual	Fine	0.4	12	13	660567.44	4284996	none
LWD	Annual	Fine	0.2	12	12	660567.44	4285246	none
MAINDAM	Annual	Fine	0.0	12	12	660267.44	4285296	none
MIAD	Annual	Fine	0.0	12	12	660567.44	4285246	none
PROCESS4	Annual	Fine	0.0	12	12	660167.44	4285346	none
PROCESS5	Annual	Fine	0.0	12	12	660617.44	4284996	none
RWD	Annual	Fine	0.0	12	12	660117.44	4285346	none
COFFER	Annual	Fine	0.0	12	12	660567.44	4285246	none

Alternative 1, Unmitigated, 2009, PM2.5								
			Peak (ug/m3)					
			Model	w/background		Location		
Source Group	Avg. Period	Grid	Results	CA	EPA	X	Y	Comments
ALL	24-hr	Coarse	9.0	--	71	660367.44	4285246	H8H
ALL	24-hr	Fine	13.1	--	75	660567.44	4285246	H8H
ROADS	24-hr	Fine	0.1	--	62	660567.44	4285246	H8H
AUXSPILL	24-hr	Fine	7.4	--	69	660567.44	4285246	H8H
BORROW3	24-hr	Fine	0.1	--	62	660117.44	4284996	H8H
CONPROC1	24-hr	Fine	5.1	--	67	660567.44	4285146	H8H
LWD	24-hr	Fine	1.5	--	64	660567.44	4285246	H8H
MAINDAM	24-hr	Fine	0.1	--	62	660217.44	4285346	H8H
MIAD	24-hr	Fine	0.6	--	63	660567.44	4285246	H8H
PROCESS4	24-hr	Fine	0.0	--	62	660517.44	4285246	H8H
PROCESS5	24-hr	Fine	0.0	--	62	660517.44	4285046	H8H
RWD	24-hr	Fine	0.3	--	62	660117.44	4285346	H8H
COFFER	24-hr	Fine	1.0	--	63	660567.44	4285146	H8H
ALL	Annual	Coarse	1.3	13	14	660367.44	4285246	none
ALL	Annual	Fine	1.9	14	14	660567.44	4285246	none
ROADS	Annual	Fine	0.0	12	12	660567.44	4285246	none
AUXSPILL	Annual	Fine	1.1	13	13	660567.44	4285246	none
BORROW3	Annual	Fine	0.0	12	12	660117.44	4285296	none
CONPROC1	Annual	Fine	0.4	12	13	660567.44	4284996	none
LWD	Annual	Fine	0.3	12	13	660567.44	4285246	none
MAINDAM	Annual	Fine	0.0	12	12	660217.44	4285346	none
MIAD	Annual	Fine	0.0	12	12	660567.44	4285146	none
PROCESS4	Annual	Fine	0.0	12	12	660167.44	4285346	none
PROCESS5	Annual	Fine	0.0	12	12	660617.44	4284996	none
RWD	Annual	Fine	0.1	12	12	660117.44	4285346	none
COFFER	Annual	Fine	0.1	12	12	660567.44	4285146	none

PM2.5 Background (ug/m3)

Avg. Period	CA	EPA
24-hr	73.2	62
Annual	12	12.2

Standard (ug/m3)

Avg. Period	CA	EPA
24-hr	--	35
Annual	12	15

Red text: Concentration exceeds NAAQS or CAAQS.

NO2/NOx Ratio	0.75

Alternative 1, Mitigated, 2009, NO2									
			Peak (ug/m3)						
			Model	Project	w/background		Location		
Source Group	Avg. Period	Grid	Results	NO2	CA	EPA	X	Y	Comments
ALL	1-hr	Coarse	525.3	52.5	242.4	na	660367.44	4285246	none
ALL	1-hr	Fine	653.9	49.0	238.9	na	660517.44	4285196	none
ROADS	1-hr	Fine	10.4	10.4	200.3	na	660817.44	4285096	none
AUXSPILL	1-hr	Fine	637.6	51.0	240.9	na	660517.44	4285196	none
BORROW3	1-hr	Fine	1.8	1.8	191.7	na	659867.44	4285396	none
CONPROC1	1-hr	Fine	na	na	na	na	na	na	none
LWD	1-hr	Fine	18.8	18.8	208.7	na	659867.44	4285396	none
MAINDAM	1-hr	Fine	na	na	na	na	na	na	none
MIAD	1-hr	Fine	163.2	160.0	349.8	na	660867.44	4284746	none
PROCESS4	1-hr	Fine	na	na	na	na	na	na	none
PROCESS5	1-hr	Fine	na	na	na	na	na	na	none
RWD	1-hr	Fine	112.7	112.7	302.6	na	660767.44	4285096	none
COFFER	1-hr	Fine	266.9	165.5	355.3	na	660817.44	4285096	none
ALL	Annual	Coarse	6.7	5.1	na	25.8	658867.44	4287246	none
ALL	Annual	Fine	8.4	6.3	na	27.1	658917.44	4287246	none
ROADS	Annual	Fine	0.1	0.1	na	20.8	658967.44	4287346	none
AUXSPILL	Annual	Fine	0.4	0.3	na	21.1	658867.44	4287496	none
BORROW3	Annual	Fine	0.0	0.0	na	20.8	658967.44	4287346	none
CONPROC1	Annual	Fine	na	na	na	na	na	na	none
LWD	Annual	Fine	0.0	0.0	na	20.8	658867.44	4287496	none
MAINDAM	Annual	Fine	na	na	na	na	na	na	none
MIAD	Annual	Fine	0.1	0.1	na	20.8	658967.44	4287446	none
PROCESS4	Annual	Fine	na	na	na	na	na	na	none
PROCESS5	Annual	Fine	na	na	na	na	na	na	none
RWD	Annual	Fine	7.7	5.8	na	26.6	658917.44	4287246	none
COFFER	Annual	Fine	0.1	0.1	na	20.8	658917.44	4286996	none

Alternative 1, Unmitigated, 2009, NO2									
			Peak (ug/m3)						
			Model	Project	w/background		Location		
Source Group	Avg. Period	Grid	Results	NO2	CA	EPA	X	Y	Comments
ALL	1-hr	Coarse	655.4	49.2	239.0	na	660367.44	4285246	none
ALL	1-hr	Fine	815.9	44.9	234.8	na	660517.44	4285196	none
ROADS	1-hr	Fine	10.4	10.4	200.3	na	660817.44	4285096	none
AUXSPILL	1-hr	Fine	796.3	46.2	236.1	na	660517.44	4285196	none
BORROW3	1-hr	Fine	2.8	2.8	192.7	na	659867.44	4285396	none
CONPROC1	1-hr	Fine	na	na	na	na	na	na	none
LWD	1-hr	Fine	23.5	23.5	213.4	na	659867.44	4285396	none
MAINDAM	1-hr	Fine	na	na	na	na	na	na	none
MIAD	1-hr	Fine	204.6	188.2	378.1	na	660867.44	4284746	none
PROCESS4	1-hr	Fine	na	na	na	na	na	na	none
PROCESS5	1-hr	Fine	na	na	na	na	na	na	none
RWD	1-hr	Fine	141.1	141.1	330.9	na	660767.44	4285096	none
COFFER	1-hr	Fine	333.6	113.4	303.3	na	660817.44	4285096	none
ALL	Annual	Coarse	8.4	6.3	na	27.1	658867.44	4287246	none
ALL	Annual	Fine	10.5	7.9	na	28.6	658917.44	4287246	none
ROADS	Annual	Fine	0.1	0.1	na	20.8	658967.44	4287346	none
AUXSPILL	Annual	Fine	0.5	0.4	na	21.2	658867.44	4287496	none
BORROW3	Annual	Fine	0.1	0.0	na	20.8	658967.44	4287346	none
CONPROC1	Annual	Fine	na	na	na	na	na	na	none
LWD	Annual	Fine	0.0	0.0	na	20.8	658867.44	4287496	none
MAINDAM	Annual	Fine	na	na	na	na	na	na	none
MIAD	Annual	Fine	0.1	0.1	na	20.8	658967.44	4287446	none
PROCESS4	Annual	Fine	na	na	na	na	na	na	none
PROCESS5	Annual	Fine	na	na	na	na	na	na	none
RWD	Annual	Fine	9.7	7.3	na	28.0	658917.44	4287246	none
COFFER	Annual	Fine	0.2	0.1	na	20.9	658917.44	4286996	none

NO2 Background (ug/m3)

Avg. Period	CA	EPA
1-hr	189.88	NA
Annual	NA	20.75472

Standard (ug/m3)

Avg. Period	CA	EPA
1-hr	470	NA
Annual	NA	100

Red text: Concentration exceeds NAAQS or CAAQS.

Alternative 3, Mitigated, 2009, PM10								
			Peak (ug/m3)					
			Model	w/background		Location		
Source Group	Avg. Period	Grid	Results	CA	EPA	X	Y	Comments
ALL	24-hr	Coarse	32.3	109.3	91.3	658867.44	4285746	H2H
ALL	24-hr	Fine	44.7	121.7	103.7	659117.44	4285696	H2H
AUXSPILL	24-hr	Fine	32.0	109.0	91.0	659067.44	4285696	H2H
COFFER	24-hr	Fine	3.4	80.4	62.4	659117.44	4285996	H2H
CONPROC1	24-hr	Fine	11.0	88.0	70.0	659017.44	4285746	H2H
DIKE1	24-hr	Fine	0.1	77.1	59.1	658917.44	4285996	H2H
DIKE2	24-hr	Fine	0.1	77.1	59.1	659067.44	4285996	H2H
DIKE3	24-hr	Fine	0.1	77.1	59.1	659117.44	4285696	H2H
DIKE4	24-hr	Fine	na	na	na	na	na	H2H
DIKE5	24-hr	Fine	na	na	na	na	na	H2H
DIKE6	24-hr	Fine	na	na	na	na	na	H2H
MIAD	24-hr	Fine	0.1	77.1	59.1	659117.44	4285746	H2H
PROCESS3	24-hr	Fine	0.7	77.7	59.7	659067.44	4285946	H2H
PROCESS4	24-hr	Fine	1.5	78.5	60.5	658917.44	4285996	H2H
PROCESS5	24-hr	Fine	0.2	77.2	59.2	658917.44	4285496	H2H
PROCESS6	24-hr	Fine	0.1	77.1	59.1	659117.44	4285996	H2H
ROADS	24-hr	Fine	0.4	77.4	59.4	659117.44	4285996	H2H
RWD	24-hr	Fine	na	na	na	na	na	H2H
ALL	Annual	Coarse	1.8	27.8	23.8	660367.44	4285246	none
ALL	Annual	Fine	2.4	28.4	24.4	660567.44	4285246	none
AUXSPILL	Annual	Fine	1.9	27.9	23.9	660567.44	4285246	none
COFFER	Annual	Fine	0.2	26.2	22.2	660567.44	4285246	none
CONPROC1	Annual	Fine	0.4	26.4	22.4	660567.44	4285146	none
DIKE1	Annual	Fine	0.0	26.0	22.0	660617.44	4284996	none
DIKE2	Annual	Fine	0.0	26.0	22.0	660617.44	4284996	none
DIKE3	Annual	Fine	0.0	26.0	22.0	660617.44	4284996	none
DIKE4	Annual	Fine	na	na	na	na	na	none
DIKE5	Annual	Fine	na	na	na	na	na	none
DIKE6	Annual	Fine	na	na	na	na	na	none
MIAD	Annual	Fine	0.0	26.0	22.0	660617.44	4284996	none
PROCESS3	Annual	Fine	0.0	26.0	22.0	660117.44	4285296	none
PROCESS4	Annual	Fine	0.0	26.0	22.0	660117.44	4285346	none
PROCESS5	Annual	Fine	0.0	26.0	22.0	660567.44	4285196	none
PROCESS6	Annual	Fine	0.0	26.0	22.0	660517.44	4284996	none
ROADS	Annual	Fine	0.0	26.0	22.0	660567.44	4285246	none
RWD	Annual	Fine	na	na	na	na	na	none

Alternative 3, Unmitigated, 2009, PM10								
			Peak (ug/m3)					
			Model	w/background		Location		
Source Group	Avg. Period	Grid	Results	CA	EPA	X	Y	Comments
ALL	24-hr	Coarse	54.0	131.0	113.0	659367.44	4285746	H2H
ALL	24-hr	Fine	91.5	168.5	150.5	659417.44	4285646	H2H
AUXSPILL	24-hr	Fine	76.1	153.1	135.1	659417.44	4285646	H2H
COFFER	24-hr	Fine	11.9	88.9	70.9	659617.44	4285996	H2H
CONPROC1	24-hr	Fine	15.1	92.1	74.1	659517.44	4285696	H2H
DIKE1	24-hr	Fine	1.0	78.0	60.0	659517.44	4285996	H2H
DIKE2	24-hr	Fine	0.8	77.8	59.8	659567.44	4285996	H2H
DIKE3	24-hr	Fine	0.9	77.9	59.9	659617.44	4285996	H2H
DIKE4	24-hr	Fine	na	na	na	na	na	H2H
DIKE5	24-hr	Fine	na	na	na	na	na	H2H
DIKE6	24-hr	Fine	na	na	na	na	na	H2H
MIAD	24-hr	Fine	0.1	77.1	59.1	659617.44	4285696	H2H
PROCESS3	24-hr	Fine	0.7	77.7	59.7	659117.44	4285996	H2H
PROCESS4	24-hr	Fine	1.5	78.5	60.5	659267.44	4285996	H2H
PROCESS5	24-hr	Fine	0.4	77.4	59.4	659617.44	4285996	H2H
PROCESS6	24-hr	Fine	0.2	77.2	59.2	659617.44	4285496	H2H
ROADS	24-hr	Fine	0.9	77.9	59.9	659167.44	4285996	H2H
RWD	24-hr	Fine	na	na	na	na	na	H2H
ALL	Annual	Coarse	3.3	29.3	25.3	660367.44	4285246	none
ALL	Annual	Fine	4.4	30.4	26.4	660567.44	4285246	none
AUXSPILL	Annual	Fine	3.7	29.7	25.7	660567.44	4285246	none
COFFER	Annual	Fine	0.3	26.3	22.3	660567.44	4285246	none
CONPROC1	Annual	Fine	0.4	26.4	22.4	660567.44	4285146	none
DIKE1	Annual	Fine	0.0	26.0	22.0	660617.44	4284996	none
DIKE2	Annual	Fine	0.0	26.0	22.0	660617.44	4284996	none
DIKE3	Annual	Fine	0.0	26.0	22.0	660617.44	4284996	none
DIKE4	Annual	Fine	na	na	na	na	na	none
DIKE5	Annual	Fine	na	na	na	na	na	none
DIKE6	Annual	Fine	na	na	na	na	na	none
MIAD	Annual	Fine	0.0	26.0	22.0	660617.44	4284996	none
PROCESS3	Annual	Fine	0.0	26.0	22.0	660117.44	4285296	none
PROCESS4	Annual	Fine	0.0	26.0	22.0	660117.44	4285346	none
PROCESS5	Annual	Fine	0.0	26.0	22.0	660567.44	4285196	none
PROCESS6	Annual	Fine	0.0	26.0	22.0	660517.44	4284996	none
ROADS	Annual	Fine	0.0	26.0	22.0	660567.44	4285246	none
RWD	Annual	Fine	na	na	na	na	na	none

PM10 Background (ug/m3)

Avg. Period	CA	EPA
24-hr	77	59
Annual	26	22

Standard (ug/m3)

Avg. Period	CA	EPA
24-hr	50	150
Annual	20	50

Red text: Concentration exceeds NAAQS or CAAQS.

Alternative 3 Mitigated 2009 PM2.5								
			Peak (ug/m3)					
			Model	w/background		Location		
Source Group	Avg. Period	Grid	Results	CA	EPA	X	Y	Comments
ALL	24-hr	Coarse	4.4	--	66.4	660367.44	4285246	H8H
ALL	24-hr	Fine	7.6	--	69.6	660567.44	4285246	H8H
AUXSPILL	24-hr	Fine	3.6	--	65.6	660567.44	4285246	H8H
COFFER	24-hr	Fine	0.6	--	62.6	660567.44	4285146	H8H
CONPROC1	24-hr	Fine	5.4	--	67.4	660567.44	4285146	H8H
DIKE1	24-hr	Fine	0.0	--	62.0	660567.44	4285146	H8H
DIKE2	24-hr	Fine	0.0	--	62.0	660617.44	4284996	H8H
DIKE3	24-hr	Fine	0.0	--	62.0	660617.44	4284996	H8H
DIKE4	24-hr	Fine	na	--	na	na	na	H8H
DIKE5	24-hr	Fine	na	--	na	na	na	H8H
DIKE6	24-hr	Fine	na	--	na	na	na	H8H
MIAD	24-hr	Fine	0.0	--	62.0	660567.44	4285246	H8H
PROCESS3	24-hr	Fine	0.0	--	62.0	660117.44	4285196	H8H
PROCESS4	24-hr	Fine	0.0	--	62.0	660517.44	4285246	H8H
PROCESS5	24-hr	Fine	0.0	--	62.0	660517.44	4285046	H8H
PROCESS6	24-hr	Fine	0.0	--	62.0	660617.44	4284996	H8H
ROADS	24-hr	Fine	0.0	--	62.0	660567.44	4285246	H8H
RWD	24-hr	Fine	na	--	na	na	na	H8H
ALL	Annual	Coarse	0.6	13	13	660367.44	4285246	none
ALL	Annual	Fine	0.9	13	13	660567.44	4285246	none
AUXSPILL	Annual	Fine	0.5	13	13	660567.44	4285246	none
COFFER	Annual	Fine	0.0	12	12	660567.44	4285246	none
CONPROC1	Annual	Fine	0.4	12	13	660567.44	4284996	none
DIKE1	Annual	Fine	0.0	12	12	660617.44	4284996	none
DIKE2	Annual	Fine	0.0	12	12	660517.44	4284996	none
DIKE3	Annual	Fine	0.0	12	12	660517.44	4284996	none
DIKE4	Annual	Fine	na	na	na	na	na	none
DIKE5	Annual	Fine	na	na	na	na	na	none
DIKE6	Annual	Fine	na	na	na	na	na	none
MIAD	Annual	Fine	0.0	12	12	661117.44	4284296	none
PROCESS3	Annual	Fine	0.0	12	12	660117.44	4285296	none
PROCESS4	Annual	Fine	0.0	12	12	660167.44	4285346	none
PROCESS5	Annual	Fine	0.0	12	12	660617.44	4284996	none
PROCESS6	Annual	Fine	0.0	12	12	660567.44	4285196	none
ROADS	Annual	Fine	0.0	12	12	660567.44	4285246	none
RWD	Annual	Fine	na	na	na	na	na	none

Alternative 3, Unmitigated, 2009, PM2.5								
			Peak (ug/m3)			Location		
			Model	w/background				
Source Group	Avg. Period	Grid	Results	CA	EPA	X	Y	Comments
ALL	24-hr	Coarse	6.5	--	68.5	660367.44	4285246	H8H
ALL	24-hr	Fine	10.6	--	72.6	660567.44	4285196	H8H
AUXSPILL	24-hr	Fine	6.9	--	68.9	660567.44	4285246	H8H
COFFER	24-hr	Fine	1.1	--	63.1	660567.44	4285146	H8H
CONPROC1	24-hr	Fine	5.1	--	67.1	660567.44	4285146	H8H
DIKE1	24-hr	Fine	0.0	--	62.0	660567.44	4285146	H8H
DIKE2	24-hr	Fine	0.0	--	62.0	660617.44	4284996	H8H
DIKE3	24-hr	Fine	0.0	--	62.0	660617.44	4284996	H8H
DIKE4	24-hr	Fine	na	--	na	na	na	H8H
DIKE5	24-hr	Fine	na	--	na	na	na	H8H
DIKE6	24-hr	Fine	na	--	na	na	na	H8H
MIAD	24-hr	Fine	0.0	--	62.0	660567.44	4285246	H8H
PROCESS3	24-hr	Fine	0.0	--	62.0	660117.44	4285196	H8H
PROCESS4	24-hr	Fine	0.0	--	62.0	660517.44	4285246	H8H
PROCESS5	24-hr	Fine	0.0	--	62.0	660517.44	4285046	H8H
PROCESS6	24-hr	Fine	0.0	--	62.0	660617.44	4284996	H8H
ROADS	24-hr	Fine	0.0	--	62.0	660567.44	4285246	H8H
RWD	24-hr	Fine	na	--	na	na	na	H8H
ALL	Annual	Coarse	1.0	13.0	13.2	660367.44	4285246	none
ALL	Annual	Fine	1.4	13.4	13.6	660567.44	4285246	none
AUXSPILL	Annual	Fine	1.0	13.0	13.2	660567.44	4285246	none
COFFER	Annual	Fine	0.1	12.1	12.3	660567.44	4285246	none
CONPROC1	Annual	Fine	0.4	12.4	12.6	660567.44	4284996	none
DIKE1	Annual	Fine	0.0	12.0	12.2	660617.44	4284996	none
DIKE2	Annual	Fine	0.0	12.0	12.2	660517.44	4284996	none
DIKE3	Annual	Fine	0.0	12.0	12.2	660517.44	4284996	none
DIKE4	Annual	Fine	na	na	na	na	na	none
DIKE5	Annual	Fine	na	na	na	na	na	none
DIKE6	Annual	Fine	na	na	na	na	na	none
MIAD	Annual	Fine	0.0	12.0	12.2	660567.44	4285246	none
PROCESS3	Annual	Fine	0.0	12.0	12.2	660117.44	4285296	none
PROCESS4	Annual	Fine	0.0	12.0	12.2	660167.44	4285346	none
PROCESS5	Annual	Fine	0.0	12.0	12.2	660617.44	4284996	none
PROCESS6	Annual	Fine	0.0	12.0	12.2	660567.44	4285196	none
ROADS	Annual	Fine	0.0	12.0	12.2	660567.44	4285246	none
RWD	Annual	Fine	na	na	na	na	na	none

PM2.5 Background (ug/m3)

Avg. Period	CA	EPA
24-hr	73.2	62
Annual	12	12.2

Standard (ug/m3)

Avg. Period	CA	EPA
24-hr	--	35
Annual	12	15

Red text: Concentration exceeds NAAQS or CAAQS.

NO2/NOx Ratio	0.75

Alternative 3, Mitigated, 2008 (1-Hr) and 2009 (Annual), NO2									
			Peak (ug/m3)						
			Model	Project	w/background		Location		
Source Group	Avg. Period	Grid	Results	NO2	CA	EPA	X	Y	Comments
ALL	1-hr	Coarse	461	64.5	254	na	660367.44	4285246	none
ALL	1-hr	Fine	578	49.1	239	na	660517.44	4285196	none
AUXSPILL	1-hr	Fine	577	49.1	239	na	660517.44	4285196	none
COFFER	1-hr	Fine	261	161.8	352	na	660867.44	4284746	none
CONPROC1	1-hr	Fine	na	na	na	na	na	na	none
DIKE1	1-hr	Fine	na	na	na	na	na	na	none
DIKE2	1-hr	Fine	na	na	na	na	na	na	none
DIKE3	1-hr	Fine	na	na	na	na	na	na	none
DIKE4	1-hr	Fine	313	143.9	334	na	658867.44	4288746	none
DIKE5	1-hr	Fine	263	163.3	353	na	658867.44	4288746	none
DIKE6	1-hr	Fine	255	158.1	348	na	658867.44	4287246	none
MIAD	1-hr	Fine	209	192.5	382	na	663367.44	4284246	none
PROCESS3	1-hr	Fine	na	na	na	na	na	na	none
PROCESS4	1-hr	Fine	na	na	na	na	na	na	none
PROCESS5	1-hr	Fine	na	na	na	na	na	na	none
PROCESS6	1-hr	Fine	na	na	na	na	na	na	none
ROADS	1-hr	Fine	2.8	2.8	193	na	658367.44	4286746	none
RWD	1-hr	Fine	173	168.2	358	na	658867.44	4286246	none
ALL	Annual	Coarse	4.5	3.3	na	24	658867.44	4288746	none
ALL	Annual	Fine	7.3	5.4	na	26	658867.44	4288246	none
AUXSPILL	Annual	Fine	1.7	1.3	na	22	660367.44	4285246	none
COFFER	Annual	Fine	0.26	0.2	na	21	661867.44	4283746	none
CONPROC1	Annual	Fine	na	na	na	na	na	na	none
DIKE1	Annual	Fine	na	na	na	na	na	na	none
DIKE2	Annual	Fine	na	na	na	na	na	na	none
DIKE3	Annual	Fine	na	na	na	na	na	na	none
DIKE4	Annual	Fine	2.8	2.1	na	23	659367.44	4289246	none
DIKE5	Annual	Fine	5.6	4.2	na	25	658867.44	4288246	none
DIKE6	Annual	Fine	0.82	0.6	na	21	658867.44	4288246	none
MIAD	Annual	Fine	1.4	1.0	na	22	663867.44	4284746	none
PROCESS3	Annual	Fine	na	na	na	na	na	na	none
PROCESS4	Annual	Fine	na	na	na	na	na	na	none
PROCESS5	Annual	Fine	na	na	na	na	na	na	none
PROCESS6	Annual	Fine	na	na	na	na	na	na	none
ROADS	Annual	Fine	0.027	0.0	na	21	658867.44	4288246	none
RWD	Annual	Fine	2.1	1.6	na	22	658867.44	4287246	none

Alternative 3, Unmitigated, 2008 (1-Hr) and 2009 (Annual), NO2									
			Peak (ug/m3)						
			Model	Project	w/background		Location		
Source Group	Avg. Period	Grid	Results	NO2	CA	EPA	X	Y	Comments
ALL	1-hr	Coarse	575	48.9	239	na	660367.44	4285246	none
ALL	1-hr	Fine	721	43.3	233	na	660517.44	4285196	none
AUXSPILL	1-hr	Fine	720	43.2	233	na	660517.44	4285196	none
COFFER	1-hr	Fine	326	124.0	314	na	660867.44	4284746	none
CONPROC1	1-hr	Fine	na	na	na	na	na	na	none
DIKE1	1-hr	Fine	na	na	na	na	na	na	none
DIKE2	1-hr	Fine	na	na	na	na	na	na	none
DIKE3	1-hr	Fine	na	na	na	na	na	na	none
DIKE4	1-hr	Fine	391	93.9	284	na	658867.44	4288746	none
DIKE5	1-hr	Fine	329	124.9	315	na	658867.44	4288746	none
DIKE6	1-hr	Fine	320	121.4	311	na	658867.44	4287246	none
MIAD	1-hr	Fine	262	162.4	352	na	663367.44	4284246	none
PROCESS3	1-hr	Fine	na	na	na	na	na	na	none
PROCESS4	1-hr	Fine	na	na	na	na	na	na	none
PROCESS5	1-hr	Fine	na	na	na	na	na	na	none
PROCESS6	1-hr	Fine	na	na	na	na	na	na	none
ROADS	1-hr	Fine	5.1	5.1	195	na	658367.44	4286746	none
RWD	1-hr	Fine	217	186.5	376	na	658867.44	4286246	none
ALL	Annual	Coarse	5.6	4.2	na	25	658867.44	4288746	none
ALL	Annual	Fine	9.1	6.8	na	28	658867.44	4288246	none
AUXSPILL	Annual	Fine	2.1	1.6	na	22	660367.44	4285246	none
COFFER	Annual	Fine	0.32	0.2	na	21	661867.44	4283746	none
CONPROC1	Annual	Fine	na	na	na	na	na	na	none
DIKE1	Annual	Fine	na	na	na	na	na	na	none
DIKE2	Annual	Fine	na	na	na	na	na	na	none
DIKE3	Annual	Fine	na	na	na	na	na	na	none
DIKE4	Annual	Fine	3.5	2.6	na	23	659367.44	4289246	none
DIKE5	Annual	Fine	7.0	5.2	na	26	658867.44	4288246	none
DIKE6	Annual	Fine	1.03	0.8	na	22	658867.44	4288246	none
MIAD	Annual	Fine	1.7	1.3	na	22	663867.44	4284746	none
PROCESS3	Annual	Fine	na	na	na	na	na	na	none
PROCESS4	Annual	Fine	na	na	na	na	na	na	none
PROCESS5	Annual	Fine	na	na	na	na	na	na	none
PROCESS6	Annual	Fine	na	na	na	na	na	na	none
ROADS	Annual	Fine	0.048	0.0	na	21	658867.44	4288246	none
RWD	Annual	Fine	2.6	1.9	na	23	658867.44	4287246	none

Alternative 3, Mitigated, Revised Haul Roads, 2008 (1-Hr) and 2009 (Annual), NO2									
			Peak (ug/m3)						
			Model	Project	w/background		Location		
Source Group	Avg. Period	Grid	Results	NO2	CA	EPA	X	Y	Comments
ALL	1-hr	Coarse	554	49.8	240	na	658867.44	4287246	none
ALL	1-hr	Fine	867	43.3	233	na	658967.44	4287446	none
AUXSPILL	1-hr	Fine	460	69.0	259	na	660367.44	4285246	none
COFFER	1-hr	Fine	261	177.5	367	na	660867.44	4284746	none
CONPROC1	1-hr	Fine	na	na	na	na	na	na	none
DIKE1	1-hr	Fine	na	na	na	na	na	na	none
DIKE2	1-hr	Fine	na	na	na	na	na	na	none
DIKE3	1-hr	Fine	na	na	na	na	na	na	none
DIKE4	1-hr	Fine	528	52.8	243	na	658867.44	4288746	none
DIKE5	1-hr	Fine	550	49.5	239	na	658817.44	4287496	none
DIKE6	1-hr	Fine	585	46.8	237	na	658967.44	4287346	none
MIAD	1-hr	Fine	209	186.2	376	na	663367.44	4284246	none
PROCESS3	1-hr	Fine	na	na	na	na	na	na	none
PROCESS4	1-hr	Fine	na	na	na	na	na	na	none
PROCESS5	1-hr	Fine	na	na	na	na	na	na	none
PROCESS6	1-hr	Fine	na	na	na	na	na	na	none
ROADS	1-hr	Fine	2.8	2.8	193	na	658367.44	4286746	none
RWD	1-hr	Fine	326	130.2	320	na	658967.44	4287346	none
ALL	Annual	Coarse	7.2	5.4	na	26	658867.44	4288746	none
ALL	Annual	Fine	9.6	7.2	na	28	658867.44	4288646	none
AUXSPILL	Annual	Fine	0.3	0.2	na	21	658617.44	4288496	none
COFFER	Annual	Fine	0.12	0.1	na	21	658817.44	4288496	none
CONPROC1	Annual	Fine	na	na	na	na	na	na	none
DIKE1	Annual	Fine	na	na	na	na	na	na	none
DIKE2	Annual	Fine	na	na	na	na	na	na	none
DIKE3	Annual	Fine	na	na	na	na	na	na	none
DIKE4	Annual	Fine	1.7	1.3	na	22	659117.44	4288996	none
DIKE5	Annual	Fine	8.3	6.2	na	27	658867.44	4288646	none
DIKE6	Annual	Fine	0.91	0.7	na	21	658667.44	4288496	none
MIAD	Annual	Fine	0.1	0.1	na	21	659117.44	4288996	none
PROCESS3	Annual	Fine	na	na	na	na	na	na	none
PROCESS4	Annual	Fine	na	na	na	na	na	na	none
PROCESS5	Annual	Fine	na	na	na	na	na	na	none
PROCESS6	Annual	Fine	na	na	na	na	na	na	none
ROADS	Annual	Fine	0.025	0.0	na	21	659067.44	4288696	none
RWD	Annual	Fine	0.4	0.3	na	21	658617.44	4288496	none

Alternative 3, Unmitigated, Revised Haul Roads, 2008 (1-Hr) and 2009 (Annual), NO2									
			Peak (ug/m3)						
			Model	Project	w/background		Location		
Source Group	Avg. Period	Grid	Results	NO2	CA	EPA	X	Y	Comments
ALL	1-hr	Coarse	693	45.0	235	na	658867.44	4287246	none
ALL	1-hr	Fine	1084	43.4	233	na	658967.44	4287446	none
AUXSPILL	1-hr	Fine	72	71.9	262	na	658817.44	4287496	none
COFFER	1-hr	Fine	86	85.7	276	na	658617.44	4287096	none
CONPROC1	1-hr	Fine	na	na	na	na	na	na	none
DIKE1	1-hr	Fine	na	na	na	na	na	na	none
DIKE2	1-hr	Fine	na	na	na	na	na	na	none
DIKE3	1-hr	Fine	na	na	na	na	na	na	none
DIKE4	1-hr	Fine	408	89.8	280	na	658717.44	4287496	none
DIKE5	1-hr	Fine	688	44.7	235	na	658817.44	4287496	none
DIKE6	1-hr	Fine	731	43.9	234	na	658967.44	4287346	none
MIAD	1-hr	Fine	65	65.0	255	na	658617.44	4286996	none
PROCESS3	1-hr	Fine	na	na	na	na	na	na	none
PROCESS4	1-hr	Fine	na	na	na	na	na	na	none
PROCESS5	1-hr	Fine	na	na	na	na	na	na	none
PROCESS6	1-hr	Fine	na	na	na	na	na	na	none
ROADS	1-hr	Fine	3.8	3.8	194	na	658617.44	4286996	none
RWD	1-hr	Fine	407	89.5	279	na	658967.44	4287346	none
ALL	Annual	Coarse	9.0	6.8	na	28	658867.44	4288746	none
ALL	Annual	Fine	9.6	7.2	na	28	658867.44	4288646	none
AUXSPILL	Annual	Fine	0.3	0.2	na	21	658617.44	4288496	none
COFFER	Annual	Fine	0.12	0.1	na	21	658817.44	4288496	none
CONPROC1	Annual	Fine	na	na	na	na	na	na	none
DIKE1	Annual	Fine	na	na	na	na	na	na	none
DIKE2	Annual	Fine	na	na	na	na	na	na	none
DIKE3	Annual	Fine	na	na	na	na	na	na	none
DIKE4	Annual	Fine	1.7	1.3	na	22	659117.44	4288996	none
DIKE5	Annual	Fine	8.3	6.2	na	27	658867.44	4288646	none
DIKE6	Annual	Fine	0.91	0.7	na	21	658667.44	4288496	none
MIAD	Annual	Fine	0.1	0.1	na	21	659117.44	4288996	none
PROCESS3	Annual	Fine	na	na	na	na	na	na	none
PROCESS4	Annual	Fine	na	na	na	na	na	na	none
PROCESS5	Annual	Fine	na	na	na	na	na	na	none
PROCESS6	Annual	Fine	na	na	na	na	na	na	none
ROADS	Annual	Fine	0.025	0.0	na	21	659067.44	4288696	none
RWD	Annual	Fine	0.4	0.3	na	21	658617.44	4288496	none

NO2 Background (ug/m3)

Avg. Period	CA	EPA
1-hr	189.88	NA
Annual	NA	20.75

Standard (ug/m3)

Avg. Period	CA	EPA
1-hr	470	NA
Annual	NA	100

Alternative 1, Mitigated, 2009, PM2.5									
		Model Results							
		24-Hour Average, H8H				Annual Average			
Source Group	Grid	1985	1986	1987	Average	1985	1986	1987	Max
ALL	Coarse	7.11	4.79	5.40	5.77	0.83	0.68	0.81	0.83
ALL	Fine	12.18	7.28	7.67	9.04	1.22	0.93	1.09	1.22
ROADS	Fine	0.13	0.14	0.15	0.14	0.02	0.02	0.02	0.02
AUXSPILL	Fine	4.87	3.81	4.14	4.27	0.63	0.48	0.54	0.63
BORROW3	Fine	0.04	0.03	0.02	0.03	0.00	0.00	0.00	0.00
CONPROC1	Fine	7.36	4.05	3.89	5.10	0.41	0.22	0.32	0.41
LWD	Fine	0.85	0.69	0.73	0.75	0.15	0.13	0.13	0.15
MAINDAM	Fine	0.06	0.07	0.03	0.06	0.01	0.00	0.00	0.01
MIAD	Fine	0.34	0.28	0.24	0.29	0.02	0.02	0.02	0.02
PROCESS4	Fine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PROCESS5	Fine	0.03	0.02	0.02	0.03	0.00	0.00	0.00	0.00
RWD	Fine	0.17	0.14	0.16	0.16	0.03	0.02	0.03	0.03
COFFER	Fine	0.57	0.53	0.54	0.55	0.04	0.04	0.04	0.04

Alternative 1, Unmitigated, 2009, PM2.5									
		Model Results							
		24-Hour Average, H8H				Annual Average			
Source Group	Grid	1985	1986	1987	Average	1985	1986	1987	Max
ALL	Coarse	10.03	8.33	8.54	8.97	1.35	1.17	1.27	1.35
ALL	Fine	15.59	10.03	13.54	13.05	1.91	1.49	1.70	1.91
ROADS	Fine	0.13	0.14	0.15	0.14	0.02	0.02	0.02	0.02
AUXSPILL	Fine	8.49	6.64	7.21	7.45	1.09	0.84	0.94	1.09
BORROW3	Fine	0.15	0.12	0.10	0.12	0.02	0.02	0.02	0.02
CONPROC1	Fine	7.36	4.05	3.89	5.10	0.41	0.22	0.32	0.41
LWD	Fine	1.69	1.38	1.45	1.51	0.31	0.25	0.27	0.31
MAINDAM	Fine	0.13	0.14	0.06	0.11	0.01	0.01	0.01	0.01
MIAD	Fine	0.66	0.53	0.46	0.55	0.04	0.04	0.03	0.04
PROCESS4	Fine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PROCESS5	Fine	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
RWD	Fine	0.31	0.25	0.29	0.28	0.05	0.04	0.05	0.05
COFFER	Fine	1.05	0.97	1.00	1.01	0.07	0.08	0.08	0.08

Alternative 3, Mitigated, 2009, PM2.5									
		Model Results							
		24-Hour Average, H8H				Annual Average			
Source Group	Grid	1985	1986	1987	Average	1985	1986	1987	Max
ALL	Coarse	5.58	3.72	3.93	4.41	0.60	0.49	0.61	0.61
ALL	Fine	10.79	6.06	6.10	7.65	0.91	0.68	0.83	0.91
AUXSPILL	Fine	4.09	3.20	3.47	3.59	0.53	0.40	0.45	0.53
COFFER	Fine	0.60	0.59	0.57	0.59	0.04	0.04	0.05	0.05
CONPROC1	Fine	7.36	4.85	3.89	5.37	0.41	0.32	0.32	0.41
DIKE1	Fine	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
DIKE2	Fine	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
DIKE3	Fine	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
DIKE4	Fine	na	na	na	na	na	na	na	0.00
DIKE5	Fine	na	na	na	na	na	na	na	0.00
DIKE6	Fine	na	na	na	na	na	na	na	0.00
MIAD	Fine	0.02	0.02	0.02	0.02	0.0016	0.0017	0.0013	0.0017
PROCESS3	Fine	0.01	0.00	0.00	0.00	0.0006	0.0004	0.0004	0.0006
PROCESS4	Fine	0.00	0.00	0.00	0.00	0.0004	0.0004	0.0005	0.0005
PROCESS5	Fine	0.01	0.01	0.01	0.01	0.0009	0.0008	0.0007	0.0009
PROCESS6	Fine	0.00	0.00	0.00	0.00	0.0001	0.0002	0.0003	0.0003
ROADS	Fine	0.02	0.02	0.02	0.02	0.0020	0.0018	0.0021	0.0021
RWD	Fine	na	na	na	na	na	na	na	0.00

Alternative 3, Unmitigated, 2009, PM2.5									
		Model Results							
		24-Hour Average, H8H				Annual Average			
Source Group	Grid	1985	1986	1987	Average	1985	1986	1987	Max
ALL	Coarse	7.69	5.75	6.17	6.54	0.99	0.81	0.96	0.99
ALL	Fine	13.57	8.21	10.00	10.59	1.43	1.09	1.29	1.43
AUXSPILL	Fine	7.86	6.15	6.67	6.89	1.01	0.77	0.87	1.01
COFFER	Fine	1.10	1.01	1.04	1.05	0.07	0.08	0.09	0.09
CONPROC1	Fine	7.36	4.05	3.89	5.10	0.41	0.22	0.32	0.41
DIKE1	Fine	0.02	0.02	0.01	0.02	0.00	0.00	0.00	0.00
DIKE2	Fine	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00
DIKE3	Fine	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00
DIKE4	Fine	na	na	na	na	na	na	na	0.00
DIKE5	Fine	na	na	na	na	na	na	na	0.00
DIKE6	Fine	na	na	na	na	na	na	na	0.00
MIAD	Fine	0.03	0.02	0.02	0.02	0.00	0.00	0.00	0.00
PROCESS3	Fine	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PROCESS4	Fine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PROCESS5	Fine	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
PROCESS6	Fine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROADS	Fine	0.03	0.03	0.03	0.03	0.00	0.00	0.00	0.00
RWD	Fine	na	na	na	na	na	na	na	0.00

On-Site Haul Truck Paved and Unpaved Road Vehicle Miles Traveled (VMT)												
Peak Daily							Ave. Daily					
VMT	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5		VMT	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
2007	292.000	187.000	167.500	275.500	494.500		2007	104.250	100.615	93.865	171.058	257.077
2008	605.500	446.250	443.500	538.000	593.000		2008	205.373	168.493	175.673	253.673	447.923
2009	856.500	868.500	221.000	917.000	1131.000		2009	460.942	360.231	107.429	578.776	676.987
2010	793.000	809.500	157.500	853.500	1068.500		2010	389.635	313.308	66.583	537.929	627.641
2011	92.000	153.500	121.000	123.000	333.000		2011	43.692	80.538	53.949	58.103	81.679
2012	668.000	1002.000	350.000	1056.000	1244.000		2012	153.108	339.742	70.962	374.692	584.538
2013	862.000	1266.000	497.000	1445.500	1417.000		2013	155.163	342.221	121.004	501.000	842.538
2014	394.000	674.000	497.000	873.500	849.000		2014	47.163	64.990	121.004	225.923	418.538

On-Site Haul Truck Paved and Unpaved Road Dust												
PM10 (lb/day)	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5		PM10 (tpy)	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
2007	3.123	2.000	1.791	2.946	5.288		2007	0.145	0.140	0.130	0.238	0.357
2008	6.475	4.772	4.743	5.753	6.341		2008	0.286	0.234	0.244	0.353	0.623
2009	9.159	9.288	2.363	9.806	12.095		2009	0.641	0.501	0.149	0.805	0.941
2010	8.480	8.657	1.684	9.127	11.426		2010	0.542	0.436	0.093	0.748	0.873
2011	0.984	1.642	1.294	1.315	3.561		2011	0.061	0.112	0.075	0.081	0.114
2012	7.143	10.715	3.743	11.293	13.303		2012	0.213	0.472	0.099	0.521	0.813
2013	9.218	13.538	5.315	15.458	15.153		2013	0.216	0.476	0.168	0.696	1.171
2014	4.213	7.208	5.315	9.341	9.079		2014	0.066	0.090	0.168	0.314	0.582
PM2.5 (lb/day)	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5		PM2.5 (tpy)	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
2007	0.317	0.203	0.182	0.299	0.537		2007	0.015	0.014	0.013	0.024	0.036
2008	0.657	0.484	0.481	0.584	0.644		2008	0.029	0.024	0.025	0.036	0.063
2009	0.930	0.943	0.240	0.995	1.227		2009	0.065	0.051	0.015	0.082	0.096
2010	0.861	0.879	0.171	0.926	1.160		2010	0.055	0.044	0.009	0.076	0.089
2011	0.100	0.167	0.131	0.133	0.361		2011	0.006	0.011	0.008	0.008	0.012
2012	0.725	1.087	0.380	1.146	1.350		2012	0.022	0.048	0.010	0.053	0.082
2013	0.936	1.374	0.539	1.569	1.538		2013	0.022	0.048	0.017	0.071	0.119
2014	0.428	0.731	0.539	0.948	0.921		2014	0.007	0.009	0.017	0.032	0.059

$PM_{2.5}$ Modeling

The National Ambient Air Quality Standard (NAAQS) for $PM_{2.5}$ states that the "24 hour standard is attained with 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard." Using the post processing file option in AERMOD, it is possible to generate the 98th percentile directly in a model run; however, batching model inputs with this option were found to be unsuccessful. An alternative method using the high 8 high (H8H) was used in AERMOD to generate results required for the modeling.

A method for evaluating the 98th percentile is found in Appendix N to 40 CFR 50 (shown at the end of this document). The high to use in the modeling is calculated with the following approach:

1. Sort all the daily values from a site in ascending order; the number of days being analyzed is referred to as "n."
2. Compute (0.98) x (n) as the number "i.d.," where "i" is the integer part of the result. Since one year of meteorological data contains 365 days, this results in the following: (0.98) x (365) = 357.7.
3. The 98th percentile is then given as: $P_{0.98,y} = X_{[i+1]}$; therefore, the 98th percentile for a year of day is day number 358 (i.e., 357 + 1).
4. Since the data is sorted in ascending order, the high value to review is 8 (see table below).

Day	High Value
365	1
364	2
363	3
362	4
361	5
360	6
359	7
358	8

As a quality check, the results of a model using the 98th percentile and the H8H were reviewed. For the same model run, the 98th percentile was calculated by AERMOD as 8.9 µg/m^3, whereas the H8H was calculated as 12.2 µg/m^3. As such, using the H8H for PM2.5 analyses provides a conservative approach to modeling (Folsom Dam, Alt 1 Mitigated, 1985).

The $PM_{2.5}$ NAAQS requires the 98th percentile to be averaged over three years; therefore, three individual years of meteorological data must be run for $PM_{2.5}$ modeling. The 24-hour average will be reported as the average of these three years, whereas the annual standard will be reported as the maximum annual average from the given years.

b. This value is rounded to 13.3, indicating that this area meets the annual $PM_{2.5}$ standard.

2.6 *Equations for the 24-Hour $PM_{2.5}$ Standard.*

(a) When the data for a particular site and year meet the data completeness requirements in section 2.2 of this appendix, calculation of the 98th percentile is accomplished by the following steps. All the daily values from a particular site and year comprise a series of values (x_1, x_2, x_3, ..., x_n), that can be sorted into a series where each number is equal to or larger than the preceding number ($x_{[1]}$, $x_{[2]}$, $x_{[3]}$, ..., $x_{[n]}$). In this case, $x_{[1]}$ is the smallest number and $x_{[n]}$ is the largest value. The 98th percentile is found from the sorted series of daily values which is ordered from the lowest to the highest number. Compute (0.98) × (n) as the number ''i.d'', where ''i'' is the integer part of the result and ''d'' is the decimal part of the result. The 98th percentile value for year y, $P_{0.98, y}$, is given by Equation 6:

Equation 6

$$P_{0.98,y} = X_{[i+1]}$$

where:

$P_{0.98,y}$ = 98th percentile for year y;

$x_{[i+1]}$ = the (i=l)th number in the ordered series of numbers; and

i = the integer part of the product of 0.98 and n.

(b) The 3-year average 98th percentile is then calculated by averaging the annual 98th percentiles:

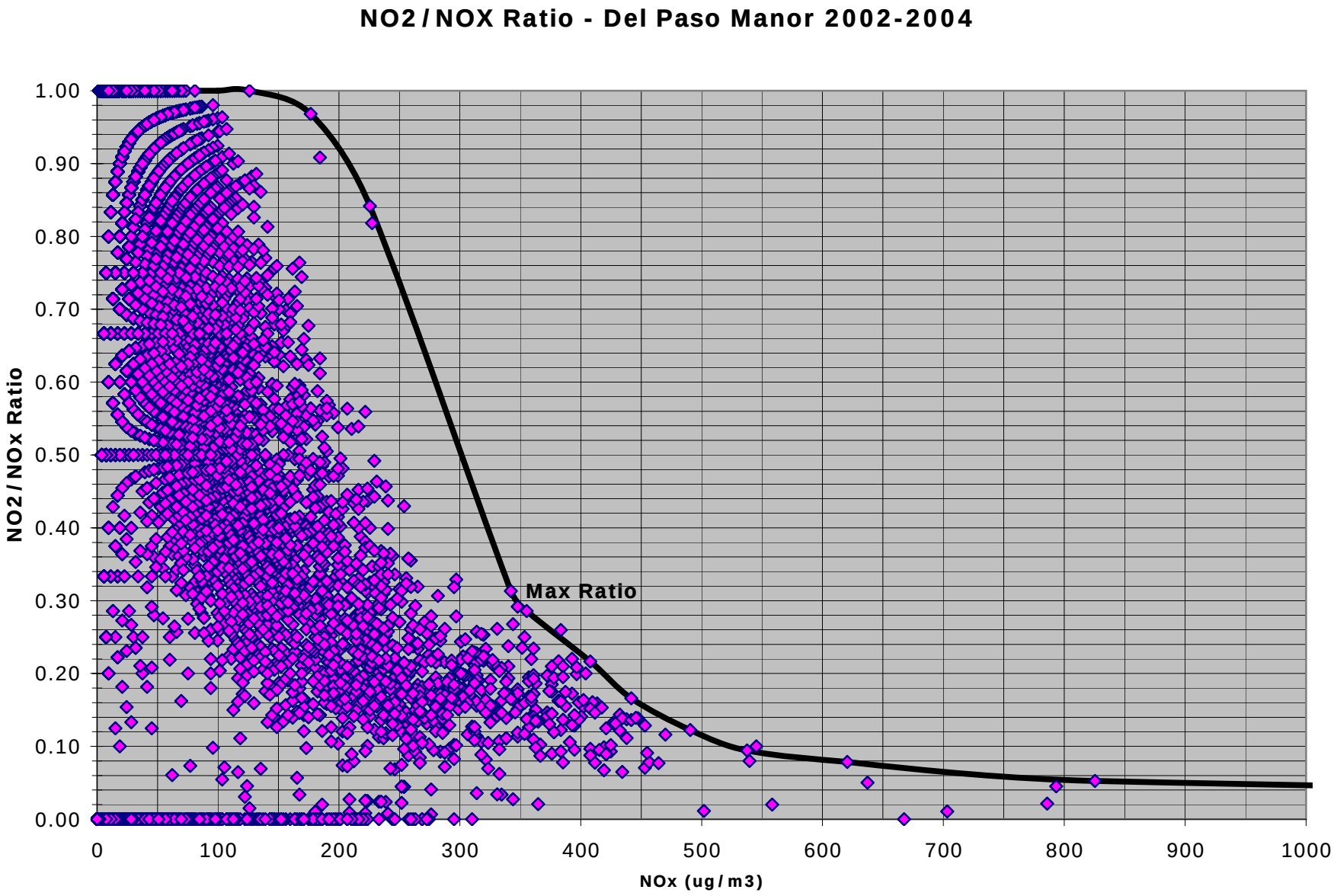
Equation 7

$$P_{0.98} = \frac{\sum_{y=1}^{3} P_{0.98,y}}{3}$$

(c) The 3-year average 98th percentile is rounded according to the conventions in section 2.3 of this appendix before a comparison with the standard is made.

Example 4—Ambient Monitoring Site With Every-Day Sampling That Meets the Primary 24-Hour $PM_{2.5}$ Standard.

a. In each year of a particular 3 year period, varying numbers of daily $PM_{2.5}$ values (e.g., 281, 304, and 296) out of a possible 365 values were recorded at a particular site with the following ranked values (in µg/m³):


NO2 / NOX Ratio - Del Paso Manor 2002-2004
NO2 / NOx Ratio
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0
100
200
300
400
500
600
700
800
900
1000
NOx (ug/m3)
Max Ratio

Appendix F
Transportation Methods and Assumptions

Appendix F
Transportation Methods and Assumptions

Determination of daily truck trips associated with each Folsom DS/FDR alternative includes the following assumptions:

- Total truck trips are distributed evenly over multiple year construction periods.
- Daily trips are not applicable for the entire construction period. The Daily trips illustrate the 'worse case' scenario at the beginning of each construction phase when both materials and equipment will be delivered to the site.
- Quantities of delivered materials will be met prior to the end of each construction period.
- Daily truck calculations assume 244 hauling days per year

Tables 3.9-22 through 3.9-29 (included in this Appendix) illustrate the daily trips associated with hauling in materials and equipment. Tables 3.9-30 through 3.9-37 (included in this Appendix) illustrate the trips assigned to each route.

Determination of daily worker trips associated with all Folsom DS/FDR alternatives includes the following assumptions:

Each worker number represents four daily trips (workers are illustrated per shift)

Worse case scenario assumes each worker will travel alone and not carpool

Each worker will drive to each Folsom DS/FDR feature as opposed to meeting at a staging area to be dispersed to their respective work sites.

Tables 3.9-38 through 3.9-77 (included in this Appendix) illustrate the distribution of workers to each Folsom DS/FDR feature from each unemployment region as identified in *Trip Distribution.* Tables 3.9-38 through 3.9-77 illustrate slightly higher worker and trip numbers than the summary illustrated on Table 3.9-12 through 3.9-16 (included in Section 3.9 of the EIS/EIR) due to rounding.

Tables 3.9-78 through 3.9-85 (included in this Appendix) illustrate the assignment of truck and worker trips as well as the daily impacts of each alternative associated with hauling materials and equipment and personnel arrivals and departures. Tables 3.9-86 through 3.9-93 (included in Section 3.9 of the EIS/EIR) illustrate the expected changes in ADT (if any), the changes (if any) in LOS, the v/c ratios for all roadways experiencing LOS F, and the percent increase in ADT (if any) for each alternative for each construction year. Emergency operations are currently not included in this analysis and it is not yet determined if its inclusion will affect the analysis presented thus far.

Table 3.9-22
2007 Construction Traffic

Facility	Materials	Route	Alternative 1				Alternative 2				Alternative 3				Alternative 4				Alternative 5			
			Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed	
			Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily
Dike 1	Filter Material	A-1																				
	Pre-Mixed Con	A-1																				
	Steel Reinforce	O-1																				
	Pre-Cast Walls	O-1																				
	Road Base	O-1																				
	Asphalt	O-1																				
	Equipment	O-1																				
Dike 2	Filter Material	A-1																				
	Pre-Mixed Con	A-1																				
	Steel Reinforce	O-1																				
	Pre-Cast Walls	O-1																				
	Road Base	O-1																				
	Asphalt	O-1																				
	Equipment	O-1																				
Dike 3	Filter Material	A-1																				
	Pre-Mixed Con	A-1																				
	Steel Reinforce	O-1																				
	Pre-Cast Walls	O-1																				
	Road Base	O-1																				
	Asphalt	O-1																				
	Equipment	O-1																				
Dike 4	Filter Material	A-3																				
	Pre-Mixed Con	A-3																				
	Steel Reinforce	O-3																				
	Pre-Cast Walls	O-3																				
	Road Base	O-3																				
	Asphalt	O-3																				
	Equipment	O-3																				
Dike 5	Filter Material	A-3																				
	Pre-Mixed Con	A-3																				
	Steel Reinforce	O-3																				
	Pre-Cast Walls	O-3																				
	Road Base	O-3																				
	Asphalt	O-3																				
	Equipment	O-3																				
Dike 6	Filter Material	A-3																				
	Pre-Mixed Con	A-3																				
	Steel Reinforce	O-3																				
	Pre-Cast Walls	O-3																				
	Road Base	O-3																				
	Asphalt	O-3																				
	Equipment	O-3																				
RWD	Filter Material	A-4																				
	Pre-Mixed Con	A-4																				
	Steel Reinforce	O-4																				
	Pre-Cast Walls	O-4																				
	Road Base	O-4																				
	Asphalt	O-4																				
	Equipment	O-4																				
Main Dam	Filter Material	A-5																				
	Raw Concrete	BP-2																				
	Steel Reinforce	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
LWD	Filter Material	A-5																				
	Pre-Mixed Con	A-5																				
	Steel Reinforce	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
Dike 7	Filter Material	A-5																				
	Pre-Mixed Con	A-5																				
	Steel Reinforce	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
Dike 8	Filter Material	A-5																				
	Pre-Mixed Con	A-5																				
	Steel Reinforce	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
MIAD	Filter Material	A-6																				
	Raw Concrete	BP-3																				
	Steel Reinforce	O-6																				
	Pre-Cast Walls	O-6																				
	Road Base	O-6																				
	Asphalt	O-6																				
	Equipment	O-6																				
Aux. Spillw	Filter Material	A-5																				
	Raw Concrete	BP-2																				
	Steel Reinforce	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
Tunnel	Filter Material	A-5																				
	Pre-Mixed Con	A-5																				
	Steel Reinforce	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
Aux. Borro	Equipment	O-5		0		0		0		0		0		0		0		0		0		0
Folsom Pt.	Equipment	O-5		0		0		0		0		0		0		0		0		0		0
Beals Pt.	Equipment	O-2	12	1	12	1	12	1	12	1		0		0	12	1	12	1	12	1	12	1
MIAD Borr	Equipment	O-6																				
Granite Bay	Equipment	O-1																				
TOTALS	Filter Material		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Raw Concrete		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Steel Reinforcement		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Pre-Cast Walls		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Road Base		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Asphalt		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Equipment		12	1	12	1	12	1	12	1	0	0	0	0	12	1	12	1	12	1	12	1

Table 3.9-23
2008 Construction Traffic

Facility	Materials	Route	Alternative 1				Alternative 2				Alternative 3				Alternative 4				Alternative 5			
			Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed	
			Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily
Dike 1	Filter Material	A-1																				
	Pre-Mixed Con	A-1																				
	Steel Reinforce	O-1																				
	Pre-Cast Walls	O-1																				
	Road Base	O-1																				
	Asphalt	O-1																				
	Equipment	O-1																				
Dike 2	Filter Material	A-1																				
	Pre-Mixed Con	A-1																				
	Steel Reinforce	O-1																				
	Pre-Cast Walls	O-1																				
	Road Base	O-1																				
	Asphalt	O-1																				
	Equipment	O-1																				
Dike 3	Filter Material	A-1																				
	Pre-Mixed Con	A-1																				
	Steel Reinforce	O-1																				
	Pre-Cast Walls	O-1																				
	Road Base	O-1																				
	Asphalt	O-1																				
	Equipment	O-1																				
Dike 4	Filter Material	A-3	785	4		0	30	1		0	58	1		0	180	1		0	360	2		0
	Pre-Mixed Con	A-3		0		0		0		0	65	1		0		0		0		0		0
	Steel Reinforce	O-3		0		0		0		0		0	2	1		0		0		0		0
	Pre-Cast Walls	O-3		0		0		0		0		0		0		0		0		0		0
	Road Base	O-3	78	1		0	76	1		0		0		0	29	1		0	100	1		0
	Asphalt	O-3	39	1		0	25	1		0		0		0	20	1		0	30	1		0
	Equipment	O-3	2	1	43	1	6	1	4	1	3	1	16	1	6	1	4	1	6	1	4	1
Dike 5	Filter Material	A-3	1,621	7		0	270	3		0	88	1		0	280	2		0	520	2		0
	Pre-Mixed Con	A-3		0		0		0		0	89	1		0		0		0		0		0
	Steel Reinforce	O-3		0		0		0		0		0	2	1		0		0		0		0
	Pre-Cast Walls	O-3		0		0		0		0		0		0		0		0		0		0
	Road Base	O-3	100	1		0	82	1		0		0		0	39	13		0	111	1		0
	Asphalt	O-3	50	1		0	30	1		0		0		0	25	5		0	30	1		0
	Equipment	O-3	2	1	48	1	4	1	5	1	3	1	16	1	4	1	4	1	4	1	4	1
Dike 6	Filter Material	A-3	973	4		0	90	2		0	68	1		0	840	9		0	300	2		0
	Pre-Mixed Con	A-3		0		0		0		0	75	1		0		0		0		0		0
	Steel Reinforce	O-3		0		0		0		0		0	2	1		0		0		0		0
	Pre-Cast Walls	O-3		0		0		0		0		0		0		0		0		0		0
	Road Base	O-3	73	1		0	78	1		0		0		0	33	17		0	100	1		0
	Asphalt	O-3	36	1		0	25	1		0		0		0	25	5		0	30	1		0
	Equipment	O-3	2	1	47	1	4	1	5	1	3	1	16	1	4	1	5	1	4	1	5	1
RWD	Filter Material	A-4									287	2		0								
	Pre-Mixed Con	A-4									318	2		0								
	Steel Reinforce	O-4										0	6	1								
	Pre-Cast Walls	O-4										0		0								
	Road Base	O-4										0		0								
	Asphalt	O-4										0		0								
	Equipment	O-4									3	1	26	1								
Main Dam	Filter Material	A-5																				
	Raw Concrete	BP-2																				
	Steel Reinforce	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
LWD	Filter Material	A-5																				
	Pre-Mixed Con	A-5																				
	Steel Reinforce	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
Dike 7	Filter Material	A-5																				
	Pre-Mixed Con	A-5																				
	Steel Reinforce	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
Dike 8	Filter Material	A-5																				
	Pre-Mixed Con	A-5																				
	Steel Reinforce	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
MIAD	Filter Material	A-6	18,089	75		0	16,800	69		0	206	1		0	12,240	51		0	16,800	69		0
	Raw Concrete	BP-3	4,100	17		0		0		0	228	1		0	3,960	17		0		0		0
	Steel Reinforce	O-6		0		0		0		0		0	4	1		0		0		0		0
	Pre-Cast Walls	O-6		0		0		0		0		0		0		0		0		0		0
	Road Base	O-6	295	2		0	270	2		0		0		0	270	2		0	270	2		0
	Asphalt	O-6	127	1		0	80	1		0		0		0	80	1		0	80	1		0
	Equipment	O-6	4	1	67	1	12	1	14	1	3	1	24	1	12	1	12	1	10	1	12	1
Aux. Spillway	Filter Material	A-5																				
	Raw Concrete	BP-2																				
	Steel Reinforce	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
Tunnel	Filter Material	A-5																				
	Pre-Mixed Con	A-5																				
	Steel Reinforce	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
Aux. Borrow	Equipment	O-5		0		0		0		0		0		0		0		0		0		0
Folsom Pt.	Equipment	O-5		0		0		0		0		0		0		0		0		0		0
Beals Pt.	Equipment	O-2	12	1	12	1	12	1	12	1		0		0	12	1	12	1	12	1	12	1
MIAD Borrow	Equipment	O-6		0	0	0		0		0		0		0		0		0	8	1	6	1
Granite Bay	Equipment	O-1																				
TOTALS	Filter Material		21,468	90	0	0	17,190	75	0	0	707	6	0	0	13,540	63	0	0	17,980	75	0	0
	Raw Concrete		4,100	17	0	0	0	0	0	0	775	6	0	0	3,960	17	0	0	0	0	0	0
	Steel Reinforcement		0	0	0	0	0	0	0	0	0	0	16	5	0	0	0	0	0	0	0	0
	Pre-Cast Walls		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Road Base		546	5	0	0	506	5	0	0	0	0	0	0	371	33	0	0	581	5	0	0
	Asphalt		252	4	0	0	160	4	0	0	0	0	0	0	150	12	0	0	170	4	0	0
	Equipment		22	5	217	5	38	5	40	5	15	5	98	5	38	5	37	5	44	6	43	6

Table 3.9-24
2009 Construction Traffic

Facility	Materials	Route	Alternative 1				Alternative 2				Alternative 3				Alternative 4				Alternative 5			
			Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed	
			Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily
Dike 1	Filter Material	A-1									106	1		0								
	Pre-Mixed Con	A-1									121	1		0								
	Steel Reinforce	O-1										0	2	1								
	Pre-Cast Walls	O-1										0		0								
	Road Base	O-1										0		0								
	Asphalt	O-1										0		0								
	Equipment	O-1									3	1	16	1								
Dike 2	Filter Material	A-1									245	2		0								
	Pre-Mixed Con	A-1									93	1		0								
	Steel Reinforce	O-1										0	2	1								
	Pre-Cast Walls	O-1										0		0								
	Road Base	O-1										0		0								
	Asphalt	O-1										0		0								
	Equipment	O-1									3	1	14	1								
Dike 3	Filter Material	A-1									78	1		0								
	Pre-Mixed Con	A-1									88	1		0								
	Steel Reinforce	O-1										0	1	1								
	Pre-Cast Walls	O-1										0		0								
	Road Base	O-1										0		0								
	Asphalt	O-1										0		0								
	Equipment	O-1									3	1	16	1								
Dike 4	Filter Material	A-3																				
	Pre-Mixed Con	A-3																				
	Steel Reinforce	O-3																				
	Pre-Cast Walls	O-3																				
	Road Base	O-3																				
	Asphalt	O-3																				
	Equipment	O-3																				
Dike 5	Filter Material	A-3																				
	Pre-Mixed Con	A-3																				
	Steel Reinforce	O-3																				
	Pre-Cast Walls	O-3																				
	Road Base	O-3																				
	Asphalt	O-3																				
	Equipment	O-3																				
Dike 6	Filter Material	A-3																				
	Pre-Mixed Con	A-3																				
	Steel Reinforce	O-3																				
	Pre-Cast Walls	O-3																				
	Road Base	O-3																				
	Asphalt	O-3																				
	Equipment	O-3																				
RWD	Filter Material	A-4	3,522	15		0	4,800	20		0					3,600	15		0	3,720	16		0
	Pre-Mixed Con	A-4		0		0	20	1		0						0		0		0		0
	Steel Reinforce	O-4		0	0	0		0	8,800	37						0		0		0		0
	Pre-Cast Walls	O-4		0		0		0	2,000	9						0		0		0		0
	Road Base	O-4	334	2		0	384	2		0					184	1		0	525	3		0
	Asphalt	O-4	167	1		0	135	1		0					120	1		0	160	1		0
	Equipment	O-4	2	1	62	1	10	1	7	1					10	1	7	1	10	1	12	1
Main Dam	Filter Material	A-5																				
	Raw Concrete	BP-2																				
	Steel Reinforce	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
LWD	Filter Material	A-5																				
	Pre-Mixed Con	A-5																				
	Steel Reinforce	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
Dike 7	Filter Material	A-5																				
	Pre-Mixed Con	A-5																				
	Steel Reinforce	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
Dike 8	Filter Material	A-5																				
	Pre-Mixed Con	A-5																				
	Steel Reinforce	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
MIAD	Filter Material	A-6	18,089	75		0	16,800	69		0	206	1		0	12,240	51		0	16,800	69		0
	Raw Concrete	BP-3	4,100	17		0		0		0	228	1		0	3,960	17		0		0		0
	Steel Reinforce	O-6		0		0		0		0		0	4	1		0		0		0		0
	Pre-Cast Walls	O-6		0		0		0		0		0		0		0		0		0		0
	Road Base	O-6	295	2		0	270	2		0		0		0	270	2		0	270	2		0
	Asphalt	O-6	127	1		0	80	1		0		0		0	80	1		0	80	1		0
	Equipment	O-6	4	1	67	1	12	1	14	1	4	1	24	1	12	1	12	1	10	1	12	1
Aux. Spillw	Filter Material	A-5	904	4		0		0		0		0		0		0		0		0		0
	Raw Concrete	BP-2	12481	52		0	6160	26		0	28081	116		0	6160	14		0		0		0
	Steel Reinforce	O-5		0	82	1		0	18480	76		0	367	2		0	18480	42		0		0
	Pre-Cast Walls	O-5		0		0		0		0		0		0		0		0		0		0
	Road Base	O-5	1250	6		0		0		0		0		0		0		0		0		0
	Asphalt	O-5	92	1		0		0		0	92	1		0		0		0		0		0
	Equipment	O-5	4	1	88	1	6	1	9	1	4	1	57	1	6	1	8	1		0		0
Tunnel	Filter Material	A-5						0		0												
	Pre-Mixed Con	A-5					6840	29		0												
	Steel Reinforce	O-5						0		0												
	Pre-Cast Walls	O-5						0		0												
	Road Base	O-5						0		0												
	Asphalt	O-5						0		0												
	Equipment	O-5					3	1	7	1												
Aux. Borro	Equipment	O-5		0		0		0		0		0		0		0		0		0		0
Folsom Pt.	Equipment	O-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beals Pt.	Equipment	O-2	12	1	12	1	12	1	12	1		0		0	12	1	12	1	12	1	12	1
MIAD Borr	Equipment	O-6		0	0	0		0		0		0		0		0		0	8	1	6	1
Granite Ba	Equipment	O-1																				
TOTALS	Filter Material		22,515	94	0	0	21,600	89	0	0	635	5	0	0	15,840	66	0	0	20,520	85	0	0
	Raw Concrete		16,581	69	0	0	13,020	56	0	0	28,611	120	0	0	10,120	31	0	0	0	0	0	0
	Steel Reinforcement		0	0	82	1	8,800	37	27,280	113	5	0	376	6	0	0	18,480	42	0	0	0	0
	Pre-Cast Walls		0	0	0	0	0	0	2,000	9	0	0	0	0	0	0	0	0	0	0	0	0
	Road Base		1879	10	0	0	654	4	0	0	0	0	0	0	454	3	0	0	795	5	0	0
	Asphalt		386	3	0	0	215	2	0	0	92	1	0	0	200	2	0	0	240	2	0	0
	Equipment		22	4	229	4	43	5	49	5	17	5	127	5	40	4	39	4	40	4	42	4

Table 3.9-25
2010 Construction Traffic

Facility	Materials	Route	Alternative 1				Alternative 2				Alternative 3				Alternative 4				Alternative 5			
			Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed	
			Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily
Dike 1	Filter Material	A-1																				
	Pre-Mixed Con	A-1																				
	Steel Reinforce	O-1																				
	Pre-Cast Walls	O-1																				
	Road Base	O-1																				
	Asphalt	O-1																				
	Equipment	O-1																				
Dike 2	Filter Material	A-1																				
	Pre-Mixed Con	A-1																				
	Steel Reinforce	O-1																				
	Pre-Cast Walls	O-1																				
	Road Base	O-1																				
	Asphalt	O-1																				
	Equipment	O-1																				
Dike 3	Filter Material	A-1																				
	Pre-Mixed Con	A-1																				
	Steel Reinforce	O-1																				
	Pre-Cast Walls	O-1																				
	Road Base	O-1																				
	Asphalt	O-1																				
	Equipment	O-1																				
Dike 4	Filter Material	A-3																				
	Pre-Mixed Con	A-3																				
	Steel Reinforce	O-3																				
	Pre-Cast Walls	O-3																				
	Road Base	O-3																				
	Asphalt	O-3																				
	Equipment	O-3																				
Dike 5	Filter Material	A-3																				
	Pre-Mixed Con	A-3																				
	Steel Reinforce	O-3																				
	Pre-Cast Walls	O-3																				
	Road Base	O-3																				
	Asphalt	O-3																				
	Equipment	O-3																				
Dike 6	Filter Material	A-3																				
	Pre-Mixed Con	A-3																				
	Steel Reinforce	O-3																				
	Pre-Cast Walls	O-3																				
	Road Base	O-3																				
	Asphalt	O-3																				
	Equipment	O-3																				
RWD	Filter Material	A-4	3,522	15		0	4,800	20		0					3,600	15		0	3,720	16		0
	Pre-Mixed Con	A-4		0		0	20	1		0						0		0		0		0
	Steel Reinforce	O-4		0		0		0	8,800	37						0		0		0		0
	Pre-Cast Walls	O-4		0		0		0	2,000	9						0		0		0		0
	Road Base	O-4	334	2		0	384	2		0					184	1		0	525	3		0
	Asphalt	O-4	167	1		0	135	1		0					120	1		0	160	1		0
	Equipment	O-4	2	1	62	1	10	1	7	1					10	1	7	1	10	1	12	1
Main Dam	Filter Material	A-5																				
	Raw Concrete	BP-2																				
	Steel Reinforce	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
LWD	Filter Material	A-5																				
	Pre-Mixed Con	A-5																				
	Steel Reinforce	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
Dike 7	Filter Material	A-5																				
	Pre-Mixed Con	A-5																				
	Steel Reinforce	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
Dike 8	Filter Material	A-5																				
	Pre-Mixed Con	A-5																				
	Steel Reinforce	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
MIAD	Filter Material	A-6	18089	75		0	16800	35		0	206	1		0	12240	51		0	16800	69		0
	Raw Concrete	BP-3	4100	17		0		0		0	228	1		0	3960	17		0		0		0
	Steel Reinforce	O-6		0		0		0		0		0	4	1		0		0		0		0
	Pre-Cast Walls	O-6		0		0		0		0		0		0		0		0		0		0
	Road Base	O-6	295	2		0	270	27		0		0		0	270	2		0	270	2		0
	Asphalt	O-6	127	1		0	80	8		0		0		0	80	1		0	80	1		0
	Equipment	O-6	4	1	67	1	12	1	14	1		0	10	1		0	10	1		0	24	1
Aux. Spillw	Filter Material	A-5	904	4		0		0		0		0		0		0		0		0		0
	Raw Concrete	BP-2	12481	52		0	6160	14		0	28081	116		0	6160	14		0		0		0
	Steel Reinforce	O-5		0	82	1		0	18480	42		0	367	2		0	18480	42		0		0
	Pre-Cast Walls	O-5		0		0		0		0		0		0		0		0		0		0
	Road Base	O-5	1250	6		0		0		0		0		0		0		0		0		0
	Asphalt	O-5	92	1		0		0		0	92	1		0		0		0		0		0
	Equipment	O-5	4	1	88	1	6	1	9	1	4	1	57	1	6	1	8	1		0		0
Tunnel	Filter Material	A-5						0		0												
	Pre-Mixed Con	A-5					6840	29		0												
	Steel Reinforce	O-5						0		0												
	Pre-Cast Walls	O-5						0		0												
	Road Base	O-5						0		0												
	Asphalt	O-5						0		0												
	Equipment	O-5					3	1	7	1												
Aux. Borro	Equipment	O-5																				
Folsom Pt.	Equipment	O-5																				
Beals Pt.	Equipment	O-2		0		0		0		0		0		0		0		0	12	1	12	1
MIAD Borr	Equipment	O-6																				
Granite Ba	Equipment	O-1																				
TOTALS	Filter Material		22,515	94	0	0	21,600	55	0	0	206	1	0	0	15,840	66	0	0	20,520	85	0	0
	Raw Concrete		16,581	69	0	0	13,020	44	0	0	28,309	117	0	0	10,120	31	0	0	0	0	0	0
	Steel Reinforcement		0	0	82	1	8,800	37	27,280	79	0	0	371	3	0	0	18,480	42	0	0	0	0
	Pre-Cast Walls		0	0	0	0	0	0	2,000	9	0	0	0	0	0	0	0	0	0	0	0	0
	Road Base		1879	10	0	0	654	29	0	0	0	0	0	0	454	3	0	0	795	5	0	0
	Asphalt		386	3	0	0	215	9	0	0	92	1	0	0	200	2	0	0	240	2	0	0
	Equipment		10	3	217	3	31	4	37	4	4	1	67	2	16	2	25	3	22	2	48	3

Table 3.9-26
2011 Construction Traffic

Facility	Materials	Route	Alternative 1				Alternative 2				Alternative 3				Alternative 4				Alternative 5			
			Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed	
			Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily
Dike 1	Filter Material	A-1																				
	Pre-Mixed Con	A-1																				
	Steel Reinforce	O-1																				
	Pre-Cast Walls	O-1																				
	Road Base	O-1																				
	Asphalt	O-1																				
	Equipment	O-1																				
Dike 2	Filter Material	A-1																				
	Pre-Mixed Con	A-1																				
	Steel Reinforce	O-1																				
	Pre-Cast Walls	O-1																				
	Road Base	O-1																				
	Asphalt	O-1																				
	Equipment	O-1																				
Dike 3	Filter Material	A-1																				
	Pre-Mixed Con	A-1																				
	Steel Reinforce	O-1																				
	Pre-Cast Walls	O-1																				
	Road Base	O-1																				
	Asphalt	O-1																				
	Equipment	O-1																				
Dike 4	Filter Material	A-3																				
	Pre-Mixed Con	A-3																				
	Steel Reinforce	O-3																				
	Pre-Cast Walls	O-3																				
	Road Base	O-3																				
	Asphalt	O-3																				
	Equipment	O-3																				
Dike 5	Filter Material	A-3																				
	Pre-Mixed Con	A-3																				
	Steel Reinforce	O-3																				
	Pre-Cast Walls	O-3																				
	Road Base	O-3																				
	Asphalt	O-3																				
	Equipment	O-3																				
Dike 6	Filter Material	A-3																				
	Pre-Mixed Con	A-3																				
	Steel Reinforce	O-3																				
	Pre-Cast Walls	O-3																				
	Road Base	O-3																				
	Asphalt	O-3																				
	Equipment	O-3																				
RWD	Filter Material	A-4																	3720	16		0
	Pre-Mixed Con	A-4																		0		0
	Steel Reinforce	O-4																		0		0
	Pre-Cast Walls	O-4																		0		0
	Road Base	O-4																	525	3		0
	Asphalt	O-4																	160	1		0
	Equipment	O-4																	10	1	12	1
Main Dam	Filter Material	A-5					0		0		0		0		0		0			0		0
	Raw Concrete	BP-2					1260	6	0		0		0		1260	6	0		3060	13		0
	Steel Reinforce	O-5						0		0		0		0		0	0			0		0
	Pre-Cast Walls	O-5						0		0		0		0		0	0			0		0
	Road Base	O-5						0		0		0		0		0	0			0		0
	Asphalt	O-5						0		0		0		0		0	0			0		0
	Equipment	O-5					0	0	0	0	0	0	8	1	4	1	1	1	4	1	1	1
LWD	Filter Material	A-5																				
	Pre-Mixed Con	A-5																				
	Steel Reinforce	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
Dike 7	Filter Material	A-5																				
	Pre-Mixed Con	A-5																				
	Steel Reinforce	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
Dike 8	Filter Material	A-5																				
	Pre-Mixed Con	A-5																				
	Steel Reinforce	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
MIAD	Filter Material	A-6					16800	69		0									16800	69		0
	Raw Concrete	BP-3						0		0										0		0
	Steel Reinforce	O-6						0		0										0		0
	Pre-Cast Walls	O-6						0		0										0		0
	Road Base	O-6					270	2		0									270	2		0
	Asphalt	O-6					80	1		0									80	1		0
	Equipment	O-6					12	1	14	1										0	10	1
Aux. Spillw	Filter Material	A-5	904	4		0		0		0		0		0		0		0		0		0
	Raw Concrete	BP-2	12481	52		0	6160	14		0	28081	116		0	6160	14		0		0		0
	Steel Reinforce	O-5		0	82	1		0	18480	42		0	367	2		0	18480	42		0		0
	Pre-Cast Walls	O-5		0		0		0		0		0		0		0		0		0		0
	Road Base	O-5	1250	6		0		0		0		0		0		0		0		0		0
	Asphalt	O-5	92	1		0		0		0	92	1		0		0		0		0		0
	Equipment	O-5	4	1	88	1	6	1	9	1	4	1	57	1	6	1	8	1		0		0
Tunnel	Filter Material	A-5						0		0												
	Pre-Mixed Con	A-5					6840	29		0												
	Steel Reinforce	O-5						0		0												
	Pre-Cast Walls	O-5						0		0												
	Road Base	O-5						0		0												
	Asphalt	O-5						0		0												
	Equipment	O-5					3	1	7	1												
Aux. Borro	Equipment	O-5																				
Folsom Pt.	Equipment	O-5																				
Beals Pt.	Equipment	O-2																	12	1	12	1
MIAD Borr	Equipment	O-6																				
Granite Ba	Equipment	O-1																				
TOTALS	Filter Material		904	4	0	0	16,800	69	0	0	0	0	0	0	0	0	0	0	20,520	85	0	0
	Raw Concrete		12,481	52	0	0	14,260	49	0	0	28,081	116	0	0	7,420	20	0	0	3,060	13	0	0
	Steel Reinforcement		0	0	82	1	0	0	18,480	42	0	0	367	2	0	0	18,480	42	0	0	0	0
	Pre-Cast Walls		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Road Base		1250	6	0	0	270	2	0	0	0	0	0	0	0	0	0	0	795	5	0	0
	Asphalt		92	1	0	0	80	1	0	0	92	1	0	0	0	0	0	0	240	2	0	0
	Equipment		4	1	88	1	21	3	30	3	4	1	65	2	10	2	9	2	26	3	35	4

Table 3.9-27
2012 Construction Traffic

			Alternative 1				Alternative 2				Alternative 3				Alternative 4				Alternative 5			
			Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed	
Facility	***Materials***	***Route***	***Total***	***Daily***	***Total***	***Daily***	***Total***	***Daily***	***Total***	***Daily***	***Total***	***Daily***	***Total***	***Daily***	***Total***	***Daily***	***Total***	***Daily***	***Total***	***Daily***	***Total***	***Daily***
Dike 1	Filter Material	A-1																				
	Pre-Mixed Concrete	A-1																				
	Steel Reinforcement	O-1																				
	Pre-Cast Walls	O-1																				
	Road Base	O-1																				
	Asphalt	O-1																				
	Equipment	O-1																				
Dike 2	Filter Material	A-1																				
	Pre-Mixed Concrete	A-1																				
	Steel Reinforcement	O-1																				
	Pre-Cast Walls	O-1																				
	Road Base	O-1																				
	Asphalt	O-1																				
	Equipment	O-1																				
Dike 3	Filter Material	A-1																				
	Pre-Mixed Concrete	A-1																				
	Steel Reinforcement	O-1																				
	Pre-Cast Walls	O-1																				
	Road Base	O-1																				
	Asphalt	O-1																				
	Equipment	O-1																				
Dike 4	Filter Material	A-3																				
	Pre-Mixed Concrete	A-3																				
	Steel Reinforcement	O-3																				
	Pre-Cast Walls	O-3																				
	Road Base	O-3																				
	Asphalt	O-3																				
	Equipment	O-3																				
Dike 5	Filter Material	A-3																				
	Pre-Mixed Concrete	A-3																				
	Steel Reinforcement	O-3																				
	Pre-Cast Walls	O-3																				
	Road Base	O-3																				
	Asphalt	O-3																				
	Equipment	O-3																				
Dike 6	Filter Material	A-3																				
	Pre-Mixed Concrete	A-3																				
	Steel Reinforcement	O-3																				
	Pre-Cast Walls	O-3																				
	Road Base	O-3																				
	Asphalt	O-3																				
	Equipment	O-3																				
RWD	Filter Material	A-4																	3720	16		0
	Pre-Mixed Concrete	A-4																		0		0
	Steel Reinforcement	O-4																		0		0
	Pre-Cast Walls	O-4																		0		0
	Road Base	O-4																	525	3		0
	Asphalt	O-4																	160	1		0
	Equipment	O-4																	10	1	12	1
Main Dam	Filter Material	A-5																		0		0
	Raw Concrete	BP-2																	3060	13		0
	Steel Reinforcement	O-5																		0		0
	Pre-Cast Walls	O-5																		0		0
	Road Base	O-5																		0		0
	Asphalt	O-5																		0		0
	Equipment	O-5																	4	1	1	1
LWD	Filter Material	A-5	1,111	5		0	4,560	19		0	90	1		0	1,200	5		0	1,320	6		0
	Pre-Mixed Concrete	A-5		0		0	60	1		0	100	1		0		0		0		0		0
	Steel Reinforcement	O-5		0		0		0	2,700	12		0	2	1		0		0		0		0
	Pre-Cast Walls	O-5		0		0		0	600	3		0		0		0		0		0		0
	Road Base	O-5	100	1		0	124	1		0		0		0	110	1		0	156	1		0
	Asphalt	O-5	50	1		0	40	1		0		0		0	70	1		0	45	1		0
	Equipment	O-5	2	1	47	1	10	1	6	1	3	1	16	1	10	1	6	1	10	1	9	1
Dike 7	Filter Material	A-5					60	1		0	39	1		0	585	3		0	540	3		0
	Pre-Mixed Concrete	A-5						0		0	43	1		0		0		0		0		0
	Steel Reinforcement	O-5						0		0		0	1	1		0		0		0		0
	Pre-Cast Walls	O-5						0		0		0		0		0		0		0		0
	Road Base	O-5					38	1		0		0		0	22	1		0	53	1		0
	Asphalt	O-5					12	1		0		0		0	24	1		0	14	1		0
	Equipment	O-5					6	1	4	1	3	1	15	1	6	1	4	1	6	1	4	1
Dike 8	Filter Material	A-5					18	1		0	38	1		0	315	2		0	630	3		0
	Pre-Mixed Concrete	A-5						0		0	43	1		0		0		0		0		0
	Steel Reinforcement	O-5						0		0		0	1	1		0		0		0		0
	Pre-Cast Walls	O-5						0		0		0		0		0		0		0		0
	Road Base	O-5					32	1		0		0		0	16	1		0	48	1		0
	Asphalt	O-5					12	1		0		0		0	10	1		0	14	1		0
	Equipment	O-5					6	1	4	1	3	1	15	1	6	1	4	1	6	1	4	1
MIAD	Filter Material	A-6																				
	Raw Concrete	BP-3																				
	Steel Reinforcement	O-6																				
	Pre-Cast Walls	O-6																				
	Road Base	O-6																				
	Asphalt	O-6																				
	Equipment	O-6																				
Aux. Spillw	Filter Material	A-5																				
	Raw Concrete	BP-2																				
	Steel Reinforcement	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
Tunnel	Filter Material	A-5																				
	Pre-Mixed Concrete	A-5																				
	Steel Reinforcement	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
Aux. Borro	Equipment	O-5																				
Folsom Pt.	Equipment	O-5																				
Beals Pt.	Equipment	O-2																	12	1	12	1
MIAD Borr	Equipment	O-6																				
Granite Ba	Equipment	O-1																				
TOTALS	Filter Material		1,111	5	0	0	4,638	21	0	0	167	3	0	0	2,100	10	0	0	6,210	28	0	0
	Raw Concrete		0	0	0	0	60	1	0	0	186	3	0	0	0	0	0	0	3,060	13	0	0
	Steel Reinforcement		0	0	0	0	2,700	12	2,700	12	0	0	4	3	0	0	0	0	0	0	0	0
	Pre-Cast Walls		0	0	0	0	0	0	600	3	0	0	0	0	0	0	0	0	0	0	0	0
	Road Base		100	1	0	0	194	3	0	0	0	0	0	0	148	3	0	0	782	6	0	0
	Asphalt		50	1	0	0	64	3	0	0	0	0	0	0	104	3	0	0	233	4	0	0
	Equipment		2	1	47	1	22	3	14	3	9	3	46	3	22	3	14	3	48	6	42	6

Table 3.9-28
2013 Construction Traffic

Facility	Materials	Route	Alternative 1				Alternative 2				Alternative 3				Alternative 4				Alternative 5			
			Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed	
			Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily
Dike 1	Filter Material	A-1					120	1		0						0		0	2,800	12		0
	Pre-Mixed Conc	A-1						0		0						0		0		0		0
	Steel Reinforcer	O-1						0		0						0		0		0		0
	Pre-Cast Walls	O-1						0		0						0		0		0		0
	Road Base	O-1					240	1		0					195	1		0	550	3		0
	Asphalt	O-1					80	1		0					120	1		0	120	1		0
	Equipment	O-1					6	1	4	1					6	1	4	1	6	1	4	1
Dike 2	Filter Material	A-1					120	1		0					0	0		0	2,800	12		0
	Pre-Mixed Conc	A-1						0		0						0		0		0		0
	Steel Reinforcer	O-1						0		0						0		0		0		0
	Pre-Cast Walls	O-1						0		0						0		0		0		0
	Road Base	O-1					240	1		0					195	1		0	550	3		0
	Asphalt	O-1					80	1		0					120	1		0	120	1		0
	Equipment	O-1					6	1	4	1					6	1	4	1	6	1	4	1
Dike 3	Filter Material	A-1					120	1		0					0	0		0	2,800	12		0
	Pre-Mixed Conc	A-1						0		0						0		0		0		0
	Steel Reinforcer	O-1						0		0						0		0		0		0
	Pre-Cast Walls	O-1						0		0						0		0		0		0
	Road Base	O-1					240	1		0					195	1		0	550	3		0
	Asphalt	O-1					80	1		0					120	1		0	120	1		0
	Equipment	O-1					6	1	4	1					6	1	4	1	6	1	4	1
Dike 4	Filter Material	A-3																				
	Pre-Mixed Conc	A-3																				
	Steel Reinforcer	O-3																				
	Pre-Cast Walls	O-3																				
	Road Base	O-3																				
	Asphalt	O-3																				
	Equipment	O-3																				
Dike 5	Filter Material	A-3																				
	Pre-Mixed Conc	A-3																				
	Steel Reinforcer	O-3																				
	Pre-Cast Walls	O-3																				
	Road Base	O-3																				
	Asphalt	O-3																				
	Equipment	O-3																				
Dike 6	Filter Material	A-3																				
	Pre-Mixed Conc	A-3																				
	Steel Reinforcer	O-3																				
	Pre-Cast Walls	O-3																				
	Road Base	O-3																				
	Asphalt	O-3																				
	Equipment	O-3																				
RWD	Filter Material	A-4																				
	Pre-Mixed Conc	A-4																				
	Steel Reinforcer	O-4																				
	Pre-Cast Walls	O-4																				
	Road Base	O-4																				
	Asphalt	O-4																				
	Equipment	O-4																				
Main Dam	Filter Material	A-5		0		0		0		0		0		0		0		0		0		0
	Raw Concrete	BP-2	2,500	11		0	720	4		0	0	0		0	720	4		0	720	4		0
	Steel Reinforcer	O-5		0	166	1	0	0	2,200	5		0	0	0		0	2,200	5		0	2,200	5
	Pre-Cast Walls	O-5		0		0		0		0		0		0		0		0		0		0
	Road Base	O-5		0		0		0		0		0		0		0		0		0		0
	Asphalt	O-5		0		0		0		0		0		0		0		0		0		0
	Equipment	O-5	0	0	8	1	2	1	0	0	12	1	2	1	2	1	0	0	2	1	0	0
LWD	Filter Material	A-5					4,560	19		0	90	1		0	1,200	5		0	1,320	6		0
	Pre-Mixed Conc	A-5					60	1		0	100	1		0		0		0		0		0
	Steel Reinforcer	O-5						0	2,700	12		0	2	1		0		0		0		0
	Pre-Cast Walls	O-5						0	600	3		0		0		0		0		0		0
	Road Base	O-5					124	1		0		0		0	110	1		0	156	1		0
	Asphalt	O-5					40	1		0		0		0	70	1		0	45	1		0
	Equipment	O-5					10	1	6	1	3	1	16	1	10	1	6	1	10	1	9	1
Dike 7	Filter Material	A-5																				
	Pre-Mixed Conc	A-5																				
	Steel Reinforcer	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
Dike 8	Filter Material	A-5																				
	Pre-Mixed Conc	A-5																				
	Steel Reinforcer	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
MIAD	Filter Material	A-6																				
	Raw Concrete	BP-3																				
	Steel Reinforcer	O-6																				
	Pre-Cast Walls	O-6																				
	Road Base	O-6																				
	Asphalt	O-6																				
	Equipment	O-6																				
Aux. Spillway	Filter Material	A-5																				
	Raw Concrete	BP-2																				
	Steel Reinforcer	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
Tunnel	Filter Material	A-5																				
	Pre-Mixed Conc	A-5																				
	Steel Reinforcer	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
Aux. Borrow	Equipment	O-5																				
Folsom Pt.	Equipment	O-5																				
Beals Pt.	Equipment	O-2																				
MIAD Borrov	Equipment	O-6																				
Granite Bay	Equipment	O-1		0		0	11	1	6	1		0		0	11	1	6	1	11	1	6	1
TOTALS	Filter Material		0	0	0	0	5,070	23	0	0	90	1	0	0	1,200	5	0	0	10,840	47	0	0
	Raw Concrete		2,500	11	0	0	780	5	0	0	100	1	0	0	720	4	0	0	720	4	0	0
	Steel Reinforcement		0	0	166	1	0	0	4,900	17	0	0	2	1	0	0	2,200	5	0	0	2,200	5
	Pre-Cast Walls		0	0	0	0	0	0	600	3	0	0	0	0	0	0	0	0	0	0	0	0
	Road Base		0	0	0	0	938	5	0	0	0	0	0	0	695	4	0	0	1892	11	0	0
	Asphalt		0	0	0	0	305	5	0	0	0	0	0	0	430	4	0	0	440	5	0	0
	Equipment		0	0	8	1	45	7	29	6	15	2	18	2	45	7	29	6	45	7	32	6

Table 3.9-29
2014 Construction Traffic

Facility	Materials	Route	Alternative 1				Alternative 2				Alternative 3				Alternative 4				Alternative 5			
			Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed		Transfer Dumps		Tractor/Flatbed	
			Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily	Total	Daily
Dike 1	Filter Material	A-1																	2,800	12		0
	Pre-Mixed Conc	A-1																		0		0
	Steel Reinforcer	O-1																		0		0
	Pre-Cast Walls	O-1																		0		0
	Road Base	O-1																	550	3		0
	Asphalt	O-1																	120	1		0
	Equipment	O-1																	12	1	8	1
Dike 2	Filter Material	A-1																	2,800	12		0
	Pre-Mixed Conc	A-1																		0		0
	Steel Reinforcer	O-1																		0		0
	Pre-Cast Walls	O-1																		0		0
	Road Base	O-1																	550	3		0
	Asphalt	O-1																	120	1		0
	Equipment	O-1																	12	1	8	1
Dike 3	Filter Material	A-1																	2,800	12		0
	Pre-Mixed Conc	A-1																		0		0
	Steel Reinforcer	O-1																		0		0
	Pre-Cast Walls	O-1																		0		0
	Road Base	O-1																	550	3		0
	Asphalt	O-1																	120	1		0
	Equipment	O-1																	12	1	8	1
Dike 4	Filter Material	A-3																				
	Pre-Mixed Conc	A-3																				
	Steel Reinforcer	O-3																				
	Pre-Cast Walls	O-3																				
	Road Base	O-3																				
	Asphalt	O-3																				
	Equipment	O-3																				
Dike 5	Filter Material	A-3																				
	Pre-Mixed Conc	A-3																				
	Steel Reinforcer	O-3																				
	Pre-Cast Walls	O-3																				
	Road Base	O-3																				
	Asphalt	O-3																				
	Equipment	O-3																				
Dike 6	Filter Material	A-3																				
	Pre-Mixed Conc	A-3																				
	Steel Reinforcer	O-3																				
	Pre-Cast Walls	O-3																				
	Road Base	O-3																				
	Asphalt	O-3																				
	Equipment	O-3																				
RWD	Filter Material	A-4																				
	Pre-Mixed Conc	A-4																				
	Steel Reinforcer	O-4																				
	Pre-Cast Walls	O-4																				
	Road Base	O-4																				
	Asphalt	O-4																				
	Equipment	O-4																				
Main Dam	Filter Material	A-5																		0		0
	Raw Concrete	BP-2																	720	3		0
	Steel Reinforcer	O-5																		0	2,200	10
	Pre-Cast Walls	O-5																		0		0
	Road Base	O-5																		0		0
	Asphalt	O-5																		0		0
	Equipment	O-5																	12	1	2	1
LWD	Filter Material	A-5																				
	Pre-Mixed Conc	A-5																				
	Steel Reinforcer	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
Dike 7	Filter Material	A-5																				
	Pre-Mixed Conc	A-5																				
	Steel Reinforcer	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
Dike 8	Filter Material	A-5																				
	Pre-Mixed Conc	A-5																				
	Steel Reinforcer	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
MIAD	Filter Material	A-6																				
	Raw Concrete	BP-3																				
	Steel Reinforcer	O-6																				
	Pre-Cast Walls	O-6																				
	Road Base	O-6																				
	Asphalt	O-6																				
	Equipment	O-6																				
Aux. Spillway	Filter Material	A-5																				
	Raw Concrete	BP-2																				
	Steel Reinforcer	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
Tunnel	Filter Material	A-5																				
	Pre-Mixed Conc	A-5																				
	Steel Reinforcer	O-5																				
	Pre-Cast Walls	O-5																				
	Road Base	O-5																				
	Asphalt	O-5																				
	Equipment	O-5																				
Aux. Borrow	Equipment	O-5																				
Folsom Pt.	Equipment	O-5																				
Beals Pt.	Equipment	O-2																				
MIAD Borrow	Equipment	O-6																				
Granite Bay	Equipment	O-1		0		0		0		0		0		0		0		0	11	1	6	1
TOTALS	Filter Material		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9,520	41	0	0
	Raw Concrete		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	720	3	0	0
	Steel Reinforcement		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,200	10	2,200	10
	Pre-Cast Walls		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Road Base		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1736	10	0	0
	Asphalt		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	395	4	0	0
	Equipment		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63	6	37	6

Table 3.9-30
2007 Assignment of Daily Trips (Materials & Equipment)

Route Designation	Alternative 1					Alternative 2					Alternative 3					Alternative 4					Alternative 5				
	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total
A-1					0					0					0					0					0
A-2					0					0					0					0					0
A-3					0					0					0					0					0
A-4					0					0					0					0					0
A-5					0					0					0					0					0
A-6					0					0					0					0					0
O-1					0					0					0					0					0
O-2			2		4			2		4					0			2		4			2		4
O-3					0					0					0					0					0
O-4					0					0					0					0					0
O-5					0					0					0					0					0
O-6					0					0					0					0					0
BP-2					0					0					0					0					0
BP-3					0					0					0					0					0
				Total	4				Total	4				Total	0				Total	4				Total	4

The results shown in the total columns are doubled to represent a round trip delivery of construction materials &/or equipment.

Table 3.9-31
2008 Assignment of Daily Trips (Materials & Equipment)

Route Designation	Alternative 1					Alternative 2					Alternative 3					Alternative 4					Alternative 5				
	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total
A-1					0					0					0					0					0
A-2					0					0					0					0					0
A-3	15				30	6				12	6				12	12				24	6				12
A-4					0					0	4				8					0					0
A-5					0					0					0					0					0
A-6	75				150	69				138	1				2	51				102	69				138
O-1					0					0					0					0					0
O-2			2		4			2		4					0			2		4			2		4
O-3		6	6		24		6	6		24		3	6		18		42	6		96		6	6		24
O-4					0					0		1	2		6					0					0
O-5					0					0					0			0		0			0		0
O-6		3	2		10		3	2		10		1	2		6		3	2		10		3	4		14
BP-2					0					0				2	4					0					0
BP-3				17	34					0				1	2				17	34					0
				Total	252				Total	188				Total	58				Total	270				Total	192

The results shown in the total columns are doubled to represent a round trip delivery of construction materials &/or equipment.

Table 3.9-32
2009 Assignment of Daily Trips (Materials & Equipment)

Route Designation	Alternative 1					Alternative 2					Alternative 3					Alternative 4					Alternative 5				
	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total
A-1					0					0	7				14					0					0
A-2					0					0					0					0					0
A-3					0					0					0					0					0
A-4	15				30	21				42					0	15				30	16				32
A-5	4				8					0					0					0					0
A-6	75				150	35				70	1				2	51				102	69				138
O-1					0					0		3	6		9					0					0
O-2					0			2		4					0			2		4			2		4
O-3					0					0					0					0					0
O-4		3	2		10		49	2		102					0		2	2		8		4	2		12
O-5		8	2		20		76	4		160		3	2		10		42	2		88					0
O-6		3	2		10		3	2		10		1	2		6		3	2		10		3	4		14
BP-2				52	104				55	110				116	232				14	28				0	0
BP-3				17	34					0				1	2				17	34				0	0
				Total	366				Total	498				Total	275				Total	304				Total	200

The results shown in the total columns are doubled to represent a round trip delivery of construction materials &/or equipment.

Table 3.9-33
2010 Assignment of Daily Trips (Materials & Equipment)

Route Designation	Alternative 1					Alternative 2					Alternative 3					Alternative 4					Alternative 5				
	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total
A-1					0					0					0					0					0
A-2					0					0					0					0					0
A-3					0					0					0					0					0
A-4	15				30	21				42					0	15				30	16				32
A-5	4				8					0					0					0					0
A-6	75				150	35				70	1				2	51				102	69				138
O-1					0					0					0					0					0
O-2					0					0					0					0			2		4
O-3					0					0					0					0					0
O-4		3	2		10		49	2		102					0		2	2		8		4	2		12
O-5		8	2		20		42	4		92		3	2		10		42	2		88					0
O-6		3	1		8		35	2		74		1	1		4		3	1		8		3	1		8
BP-2				52	104				43	86				116	232				14	28					0
BP-3				17	34					0				1	2				17	34					0
				Total	364				Total	466				Total	250				Total	298				Total	194

The results shown in the total columns are doubled to represent a round trip delivery of construction materials &/or equipment.

Table 3.9-34
2011 Assignment of Daily Trips (Materials & Equipment)

Route Designation	Alternative 1					Alternative 2					Alternative 3					Alternative 4					Alternative 5				
	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total
A-1					0					0					0					0					0
A-2					0					0					0					0					0
A-3					0					0					0					0					0
A-4					0					0					0					0	16				32
A-5	4				8					0					0					0					0
A-6					0	69				138					0					0	69				138
O-1					0					0					0					0					0
O-2					0					0					0					0			2		4
O-3					0					0					0					0					0
O-4					0					0					0					0		4	2		12
O-5		8	2		20		42	4		92		3	3		12		42	4		92		0	2		4
O-6					0		3	2		10					0					0		3	1		8
BP-2				52	104				49	98				116	232				20	40				13	26
BP-3					0					0					0					0					0
				Total	132				Total	338				Total	244				Total	132				Total	224

The results shown in the total columns are doubled to represent a round trip delivery of construction materials &/or equipment.

Table 3.9-35
2012 Assignment of Daily Trips (Materials & Equipment)

Route Designation	Alternative 1					Alternative 2					Alternative 3					Alternative 4					Alternative 5				
	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total
A-1					0					0					0					0					0
A-2					0					0					0					0					0
A-3					0					0					0					0					0
A-4					0					0					0					0	16				32
A-5	5				10	21				42	3				6	10				20	12				24
A-6					0					0					0					0					0
O-1					0					0					0					0					0
O-2					0					0					0					0					0
O-3					0					0					0					0					0
O-4					0					0					0					0		4	2		12
O-5		2	2		8		21	6		54		3	6		18		6	6		24		6	8		28
O-6					0					0					0					0					0
					0					0					0					0					0
BP-2					0				1	2				3	6					0					0
BP-3					0					0					0					0					0
				Total	18				Total	98				Total	30				Total	44				Total	96

The results shown in the total columns are doubled to represent a round trip delivery of construction materials &/or equipment.

Table 3.9-36
2013 Assignment of Daily Trips (Materials & Equipment)

Route Designation	Alternative 1					Alternative 2					Alternative 3					Alternative 4					Alternative 5				
	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total
A-1					0	3				6					0					0	36				72
A-2					0	1				2					0					0	5				10
A-3					0					0					0					0					0
A-4					0					0					0					0					0
A-5					0	19				38	1				2	5				10	6				12
A-6					0					0					0					0					0
O-1					0		6	8		28					0		6	8		28		12	8		40
O-2					0		2	2		8					0			2		4		2	2		8
O-3					0					0					0					0					0
O-4					0					0					0					0					0
O-5		1	1		4		22	3		50		1	4		10		7	3		20		7	3		20
O-6					0					0					0					0					0
BP-2				11	22				5	10				1	2				4	8				4	8
BP-3					0					0					0					0					0
				Total	26				Total	142				Total	14				Total	70				Total	170

The results shown in the total columns are doubled to represent a round trip delivery of construction materials &/or equipment.

Table 3.9-37

2014 Assignment of Daily Trips (Materials & Equipment)

Route Designation	Alternative 1					Alternative 2					Alternative 3					Alternative 4					Alternative 5				
	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total	Aggregate Trips	Offsite Trips	Equipment Trips	Batch Plant Trips	Total
A-1					0					0					0					0	36				72
A-2					0					0					0					0	5				10
A-3					0					0					0					0					0
A-4					0					0					0					0					0
A-5					0					0					0					0					0
A-6					0					0					0					0					0
O-1					0					0					0					0		12	8		40
O-2					0					0					0					0		2	2		8
O-3					0					0					0					0					0
O-4					0					0					0					0					0
O-5					0					0					0					0		10	2		24
O-6					0					0					0					0					0
BP-2					0					0					0					0				3	6
BP-3					0					0					0					0					0
				Total	0				Total	0				Total	0				Total	0				Total	160

The results shown in the total columns are doubled to represent a round trip delivery of construction materials &/or equipment.

Table 3.9-38
Construction Year 2007 Worker Distribution

Alternative 1

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)	2	4	2	4	2	4	13	26	13	26	1	2	1	2	34	68
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction																
MIAD Jet Grouting																
Totals	3	6	3	6	3	6	21	42	21	42	2	4	2	4	55	110

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-39
Construction Year 2008 Worker Distribution

Alternative 1

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Dike 4&5 Stripping/Excavation and Construction	1	2	1	2	1	2	11	22	11	22	1	2	1	2	27	54
Dike 6 Stripping/Excavation and Construction	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)	2	4	2	4	2	4	13	26	13	26	1	2	1	2	34	68
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction	2	4	2	4	2	4	12	24	12	24	1	2	1	2	32	64
MIAD Jet Grouting																
Totals	7	14	7	14	7	14	52	104	52	104	5	10	5	10	135	270

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-40
Construction Year 2009 Worker Distribution

Alternative 1

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Auxiliary Spillway Borrow Development (3,190,000 cu yds)	2	4	2	4	2	4	13	26	13	26	1	2	1	2	34	68
Auxiliary Spillway Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction	2	4	2	4	2	4	12	24	12	24	1	2	1	2	32	64
MIAD Jet Grouting	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Totals	12	24	12	24	12	24	89	178	89	178	8	16	8	16	230	460

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-41
Construction Year 2010 Worker Distribution

Alternative 1

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Worker**	**Trip**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)																
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction	2	4	2	4	2	4	12	24	12	24	1	2	1	2	32	64
MIAD Jet Grouting	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Totals	9	18	9	18	9	18	68	136	68	136	6	12	6	12	175	350

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-42
Construction Year 2011 Worker Distribution

Alternative 1

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Worker**	**Trip**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)																
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction																
MIAD Jet Grouting																
Totals	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-43
Construction Year 2012 Worker Distribution

Alternative 1

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Worker**	**Trip**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)																
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction																
MIAD Jet Grouting																
Totals	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-44
Construction Year 2013 Worker Distribution

Alternative 1

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)																
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears	2	4	2	4	2	4	16	32	16	32	1	2	1	2	40	80
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction																
MIAD Jet Grouting																
Totals	2	4	2	4	2	4	16	32	16	32	1	2	1	2	40	80

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-45
Construction Year 2014 Worker Distribution

Alternative 1

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Worker**	**Trip**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)																
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction																
MIAD Jet Grouting																
Totals																

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-46
Construction Year 2007 Worker Distribution
Alternative 2

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)	2	4	2	4	2	4	13	26	13	26	1	2	1	2	34	68
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction																
MIAD Jet Grouting																
Totals	3	6	3	6	3	6	21	42	21	42	2	4	2	4	55	110

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-47
Construction Year 2008 Worker Distribution
Alternative 2

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Dike 4&5 Stripping/Excavation and Construction	1	2	1	2	1	2	11	22	11	22	1	2	1	2	27	54
Dike 6 Stripping/Excavation and Construction	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)	2	4	2	4	2	4	13	26	13	26	1	2	1	2	34	68
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction	2	4	2	4	2	4	12	24	12	24	1	2	1	2	32	64
MIAD Jet Grouting																
Totals	7	14	7	14	7	14	52	104	52	104	5	10	5	10	135	270

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-48
Construction Year 2009 Worker Distribution

Alternative 2

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Auxiliary Spillway Borrow Development (3,190,000 cu yds)	2	4	2	4	2	4	13	26	13	26	1	2	1	2	34	68
Auxiliary Spillway Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Tunnel Construction	2	4	2	4	2	4	12	24	12	24	1	2	1	2	32	64
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction	2	4	2	4	2	4	12	24	12	24	1	2	1	2	32	64
MIAD Jet Grouting																
Totals	13	26	13	26	13	26	93	186	93	186	8	16	8	16	241	482

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-49
Construction Year 2010 Worker Distribution

Alternative 2

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Worker**	**Trip**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)																
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Tunnel Construction	2	4	2	4	2	4	12	24	12	24	1	2	1	2	32	64
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction	2	4	2	4	2	4	12	24	12	24	1	2	1	2	32	64
MIAD Jet Grouting																
Totals	10	20	10	20	10	20	72	144	72	144	6	12	6	12	186	372

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-50
Construction Year 2011 Worker Distribution
Alternative 2

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)																
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Tunnel Construction	2	4	2	4	2	4	12	24	12	24	1	2	1	2	32	64
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise	2	4	2	4	2	4	18	36	18	36	1	2	1	2	44	88
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction	2	4	2	4	2	4	12	24	12	24	1	2	1	2	32	64
MIAD Jet Grouting																
Totals	9	18	9	18	9	18	66	132	66	132	5	10	5	10	169	338

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-51
Construction Year 2012 Worker Distribution

Alternative 2

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)																
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Dike 7 & 8 Stripping/Excavation and Construction	2	4	2	4	2	4	16	32	16	32	1	2	1	2	40	80
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction																
MIAD Jet Grouting																
Totals	5	10	5	10	5	10	40	80	40	80	3	6	3	6	101	202

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-52
Construction Year 2013 Worker Distribution

Alternative 2

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trip**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction	1	2	1	2	1	2	9	18	9	18	1	2	1	2	23	46
Beals Point South/North Borrow Development (1,250,000 cu yd max)																
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears	2	4	2	4	2	4	16	32	16	32	1	2	1	2	40	80
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction																
MIAD Jet Grouting																
Totals	8	16	8	16	8	16	61	122	61	122	5	10	5	10	156	312

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-53
Construction Year 2014 Worker Distribution

Alternative 2

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trip**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)																
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction																
MIAD Jet Grouting																
Totals																

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-54
Construction Year 2007 Worker Distribution

Alternative 3

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)																
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)	2	4	2	4	2	4	13	26	13	26	1	2	1	2	34	68
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction																
MIAD Jet Grouting																
Totals	2	4	2	4	2	4	13	26	13	26	1	2	1	2	34	68

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-55
Construction Year 2008 Worker Distribution

Alternative 3

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)																
Dike 4&5 Stripping/Excavation and Construction	1	2	1	2	1	2	11	22	11	22	1	2	1	2	27	54
Dike 6 Stripping/Excavation and Construction	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Right Wing Dam Stripping/Excavation and Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Auxiliary Spillway Borrow Development (3,190,000 cu yds)	2	4	2	4	2	4	13	26	13	26	1	2	1	2	34	68
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction	2	4	2	4	2	4	12	24	12	24	1	2	1	2	32	64
MIAD Jet Grouting																
Totals	9	18	9	18	9	18	68	136	68	136	6	12	6	12	175	350

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-56
Construction Year 2009 Worker Distribution

Alternative 3

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction	1	2	1	2	1	2	9	18	9	18	1	2	1	2	23	46
Beals Point South/North Borrow Development (1,250,000 cu yd max)																
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)	2	4	2	4	2	4	13	26	13	26	1	2	1	2	34	68
Auxiliary Spillway Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction	2	4	2	4	2	4	12	24	12	24	1	2	1	2	32	64
MIAD Jet Grouting	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Totals	9	18	9	18	9	18	66	132	66	132	6	12	6	12	171	342

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-57
Construction Year 2010 Worker Distribution

Alternative 3

Route Numerical Designation	1		2		3		4		5		6		7		
	Worker Origination														
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trip**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)																
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction	2	4	2	4	2	4	12	24	12	24	1	2	1	2	32	64
MIAD Jet Grouting	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Totals	6	12	6	12	6	12	44	88	44	88	4	8	4	8	114	228

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-58
Construction Year 2011 Worker Distribution

Alternative 3

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trip**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)																
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise	2	4	2	4	2	4	18	36	18	36	1	2	1	2	44	88
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction																
MIAD Jet Grouting																
Totals	5	10	5	10	5	10	42	84	42	84	3	6	3	6	105	210

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-59
Construction Year 2012 Worker Distribution

Alternative 3

Route Numerical Designation	1		2		3		4		5		6		7		
	Worker Origination														
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trip**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)																
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Dike 7 & 8 Stripping/Excavation and Construction	2	4	2	4	2	4	16	32	16	32	1	2	1	2	40	80
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction																
MIAD Jet Grouting																
Totals	5	10	5	10	5	10	40	80	40	80	3	6	3	6	101	202

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-60
Construction Year 2013 Worker Distribution

Alternative 3

Route Numerical Designation	1		2		3		4		5		6		7		
	Worker Origination														
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trip**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)																
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears	2	4	2	4	2	4	16	32	16	32	1	2	1	2	40	80
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction																
MIAD Jet Grouting																
Totals	5	10	5	10	5	10	40	80	40	80	3	6	3	6	101	202

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-61
Construction Year 2014 Worker Distribution

Alternative 3

Route Numerical Designation	1		2		3		4		5		6		7		
	Worker Origination														
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trip**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)															
Dikes 1, 2, 3 Stripping, Excavation and Construction															
Beals Point South/North Borrow Development (1,250,000 cu yd max)															
Dike 4&5 Stripping/Excavation and Construction															
Dike 6 Stripping/Excavation and Construction															
Right Wing Dam Stripping/Excavation and Construction															
Auxiliary Spillway Borrow Development (3,190,000 cu yds)															
Auxiliary Spillway Construction															
Tunnel Construction															
Left Wing Dam Stripping/Excavation and Construction															
Dike 7 & 8 Stripping/Excavation and Construction															
Main Concrete Dam Raise															
Main Concrete Dam Tendons and Shears															
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)															
MIAD -Stripping/Excavation and Construction															
MIAD Jet Grouting															
Totals															

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-62
Construction Year 2007 Worker Distribution

Alternative 4

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)	2	4	2	4	2	4	13	26	13	26	1	2	1	2	34	68
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction																
MIAD Jet Grouting																
Totals	3	6	3	6	3	6	21	42	21	42	2	4	2	4	55	110

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-63
Construction Year 2008 Worker Distribution

Alternative 4

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Dike 4&5 Stripping/Excavation and Construction	1	2	1	2	1	2	11	22	11	22	1	2	1	2	27	54
Dike 6 Stripping/Excavation and Construction	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)	2	4	2	4	2	4	13	26	13	26	1	2	1	2	34	68
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction	2	4	2	4	2	4	12	24	12	24	1	2	1	2	32	64
MIAD Jet Grouting																
Totals	7	14	7	14	7	14	52	104	52	104	5	10	5	10	135	270

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-64
Construction Year 2009 Worker Distribution

Alternative 4

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Auxiliary Spillway Borrow Development (3,190,000 cu yds)	2	4	2	4	2	4	13	26	13	26	1	2	1	2	34	68
Auxiliary Spillway Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction	2	4	2	4	2	4	12	24	12	24	1	2	1	2	32	64
MIAD Jet Grouting	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Totals	12	24	12	24	12	24	89	178	89	178	8	16	8	16	230	460

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-65
Construction Year 2010 Worker Distribution

Alternative 4

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trip**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)																
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Auxiliary Spillway Borrow Development (3,190,000 cu yds)	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction	2	4	2	4	2	4	12	24	12	24	1	2	1	2	32	64
MIAD Jet Grouting	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Totals	9	18	9	18	9	18	68	136	68	136	6	12	6	12	175	350

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-66
Construction Year 2011 Worker Distribution

Alternative 4

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trip**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)																
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise	2	4	2	4	2	4	18	36	18	36	1	2	1	2	44	88
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction																
MIAD Jet Grouting																
Totals	5	10	5	10	5	10	42	84	42	84	3	6	3	6	105	210

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-67
Construction Year 2012 Worker Distribution

Alternative 4

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)																
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Dike 7 & 8 Stripping/Excavation and Construction	2	4	2	4	2	4	16	32	16	32	1	2	1	2	40	80
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction																
MIAD Jet Grouting																
Totals	5	10	5	10	5	10	40	80	40	80	3	6	3	6	101	202

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-68
Construction Year 2013 Worker Distribution

Alternative 4

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trip**	**Workers**	**Trip**	**Worker**	**Trip**
Granite Bay Borrow Development (913,000 cu yds max)	2	4	2	4	2	4	12	24	12	24	1	2	1	2	32	64
Dikes 1, 2, 3 Stripping, Excavation and Construction	1	2	1	2	1	2	9	18	9	18	1	2	1	2	23	46
Beals Point South/North Borrow Development (1,250,000 cu yd max)																
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears	2	4	2	4	2	4	16	32	16	32	1	2	1	2	40	80
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction																
MIAD Jet Grouting																
Totals	10	20	10	20	10	20	73	146	73	146	6	12	6	12	188	376

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-69
Construction Year 2014 Worker Distribution

Alternative 4

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)																
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction																
MIAD Jet Grouting																
Totals																

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-70
Construction Year 2007 Worker Distribution

Alternative 5

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)	1	2	1	2	1	2	10	20	10	20	1	2	1	2	25	50
MIAD -Stripping/Excavation and Construction																
MIAD Jet Grouting																
Totals	2	4	2	4	2	4	18	36	18	36	2	4	2	4	46	92

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-71
Construction Year 2008 Worker Distribution

Alternative 5

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Dike 4&5 Stripping/Excavation and Construction	1	2	1	2	1	2	11	22	11	22	1	2	1	2	27	54
Dike 6 Stripping/Excavation and Construction	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)	1	2	1	2	1	2	10	20	10	20	1	2	1	2	25	50
MIAD -Stripping/Excavation and Construction	2	4	2	4	2	4	12	24	12	24	1	2	1	2	32	64
MIAD Jet Grouting																
Totals	6	12	6	12	6	12	49	98	49	98	5	10	5	10	126	252

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-72
Construction Year 2009 Worker Distribution

Alternative 5

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)	1	2	1	2	1	2	10	20	10	20	1	2	1	2	25	50
MIAD -Stripping/Excavation and Construction	2	4	2	4	2	4	12	24	12	24	1	2	1	2	32	64
MIAD Jet Grouting																
Totals	7	14	7	14	7	14	54	108	54	108	5	10	5	10	139	278

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-73
Construction Year 2010 Worker Distribution

Alternative 5

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trip**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)	1	2	1	2	1	2	10	20	10	20	1	2	1	2	25	50
MIAD -Stripping/Excavation and Construction	2	4	2	4	2	4	12	24	12	24	1	2	1	2	32	64
MIAD Jet Grouting																
Totals	7	14	7	14	7	14	54	108	54	108	5	10	5	10	139	278

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-74
Construction Year 2011 Worker Distribution

Alternative 5

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trip**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise	2	4	2	4	2	4	18	36	18	36	1	2	1	2	44	88
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)	1	2	1	2	1	2	10	20	10	20	1	2	1	2	25	50
MIAD -Stripping/Excavation and Construction	2	4	2	4	2	4	12	24	12	24	1	2	1	2	32	64
MIAD Jet Grouting																
Totals	9	18	9	18	9	18	72	144	72	144	6	12	6	12	183	366

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-75
Construction Year 2012 Worker Distribution

Alternative 5

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trips**	**Workers**	**Trip**	**Workers**	**Trips**
Granite Bay Borrow Development (913,000 cu yds max)																
Dikes 1, 2, 3 Stripping, Excavation and Construction																
Beals Point South/North Borrow Development (1,250,000 cu yd max)	1	2	1	2	1	2	8	16	8	16	1	2	1	2	21	42
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Dike 7 & 8 Stripping/Excavation and Construction	2	4	2	4	2	4	16	32	16	32	1	2	1	2	40	80
Main Concrete Dam Raise	2	4	2	4	2	4	18	36	18	36	1	2	1	2	44	88
Main Concrete Dam Tendons and Shears																
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)	1	2	1	2	1	2	10	20	10	20	1	2	1	2	25	50
MIAD -Stripping/Excavation and Construction																
MIAD Jet Grouting																
Totals	12	24	12	24	12	24	100	200	100	200	8	16	8	16	252	504

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-76
Construction Year 2013 Worker Distribution

Alternative 5

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**
Granite Bay Borrow Development (913,000 cu yds max)	2	4	2	4	2	4	12	24	12	24	1	2	1	2	32	64
Dikes 1, 2, 3 Stripping, Excavation and Construction	1	2	1	2	1	2	9	18	9	18	1	2	1	2	23	46
Beals Point South/North Borrow Development (1,250,000 cu yd max)																
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction	3	6	3	6	3	6	24	48	24	48	2	4	2	4	61	122
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears	2	4	2	4	2	4	16	32	16	32	1	2	1	2	40	80
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)	1	2	1	2	1	2	10	20	10	20	1	2	1	2	25	50
MIAD -Stripping/Excavation and Construction																
MIAD Jet Grouting																
Totals	11	22	11	22	11	22	83	166	83	166	7	14	7	14	213	426

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-77
Construction Year 2014 Worker Distribution
Alternative 5

Route Numerical Designation	1		2		3		4		5		6		7			
	Worker Origination															
	Rocklin area		**Roseville area**		**Folsom**		**Sacramento (I-80)**		**Sacramento (US 50)**		**El Dorado (US 50)**		**El Dorado (GVR)**		**Total**	
	5%		**5%**		**5%**		**40%**		**40%**		**2.5%**		**2.5%**		**100%**	
Project Feature	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trips**	**Workers**	**Trip**	**Workers**	**Trip**	**Workers**	**Trip**
Granite Bay Borrow Development (913,000 cu yds max)	2	4	2	4	2	4	12	24	12	24	1	2	1	2	32	64
Dikes 1, 2, 3 Stripping, Excavation and Construction	1	2	1	2	1	2	9	18	9	18	1	2	1	2	23	46
Beals Point South/North Borrow Development (1,250,000 cu yd max)																
Dike 4&5 Stripping/Excavation and Construction																
Dike 6 Stripping/Excavation and Construction																
Right Wing Dam Stripping/Excavation and Construction																
Auxiliary Spillway Borrow Development (3,190,000 cu yds)																
Auxiliary Spillway Construction																
Tunnel Construction																
Left Wing Dam Stripping/Excavation and Construction																
Dike 7 & 8 Stripping/Excavation and Construction																
Main Concrete Dam Raise																
Main Concrete Dam Tendons and Shears	2	4	2	4	2	4	16	32	16	32	1	2	1	2	40	80
Folsom Point Area Borrow Development and processing (1,673,000 cu yd max)																
MIAD -Stripping/Excavation and Construction																
MIAD Jet Grouting																
Totals	7	14	7	14	7	14	49	98	49	98	4	8	4	8	127	254

The number of workers and trips may be slightly higher than those illustrated on the summary table. Since all worker and trip numbers must be whole numbers, the values have been rounded up to the nearest 1 worker or 1 trip.

Table 3.9-78
2007 Daily Project Impacts Alternatives 1 through 5

Roadway	Location	ROUTE DESIGNATION Materials/ Equip. Routes	Worker Routes	2007 No Action/No Project ADT	code	LOS	Alternative 1 New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	Alternative 2 New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	Alternative 3 New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	Alternative 4 New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	Alternative 5 New Aggregate Trips	New Offsite	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS
Folsom Boulevard	Natoma Street to Blue Ravine Road		W-3A, W-5A, W-6A, W-3B, W-5B, W-6B, W-3C, W-5C, W-6C, W-3D, W-5D, W-3E, W-5E	37,800	4AD	F					100	37,900	0.26%	4AD	F					100	37,900	0.26%	4AD	F					60	37,860	0.16%	4AD	F					100	37,900	0.26%	4AD	F					84	37,884	0.22%	4AD	F
Folsom Boulevard	Leidesdorff Street to Greenback Lane		W-3A, W-5A, W-6A, W-3B, W-5B, W-6B, W-3C, W-5C, W-6C	32,600	4AD	D					40	32,640	0.12%	4AD	D					40	32,640	0.12%	4AD	D						32,600		4AD	D					40	32,640	0.12%	4AD	D					40	32,640	0.12%	4AD	D
Folsom-Auburn Road	Oak Hill Drive to Folsom Dam Road	A-4, O-4, BP-1	W-1C, 2C, 3C, 4C, 5C, 6C, 7C, 1D,2D, 2E, W-3A, 5A, 6A, 3B, 5B, 6B,1E	40,300	4AU	F					56	40,356	0.14%	4AU	F					16	40,316	0.04%	4AU	F					16	40,316	0.04%	4AU	F					56	40,356	0.14%	4AU	F					48	40,348	0.12%	4AU	F
Folsom-Auburn Road	Folsom Dam Road to Oak Avenue		W-3A, 5A, 6A, 7A, 3B, 4B, 5B, 6B, 7B, 1E, 2E, 5C	21,400	4AU	D					76	21,476	0.36%	4AU	D					76	21,476	0.36%	4AU	D						21,400		4AU	D					40	21,440	0.19%	4AU	D					52	21,452	0.24%	4AU	D
Auburn-Folsom (A-F) Road	Douglas Boulevard to Eureka Road	A-2,A-3,A-4, O-2, O-3, O-4, BP-1	W-3A, 5A, 6A, 7A, 1B, 2B, 3B, 4B, 5B, 6B, 7B, 1C, 2C, 1D, 2D, 1E	34,300	4AU	F			2		100	34,402	0.30%	4AU	F			2		100	34,402	0.30%	4AU	F					16	34,316	0.05%	4AU	F			2		100	34,402	0.30%	4AU	F			2		92	34,394	0.27%	4AU	F
Auburn-Folsom (A-F) Road	Eureka Road to Oak Hill Drive	A-2, A-3, O-2, O-3, BP-1	W-3A, 5A, 6A, 7A, 1B, 2B, 3B, 4B, 5B, 6B, 7B, 1C, 2C, 1D, 2D, 1E	30,500	2A	F			2		100	30,602	0.33%	2A	F			2		100	30,602	0.33%	2A	F					8	30,508	0.03%	2A	F			2		100	30,602	0.33%	2A	F			2		92	30,594	0.31%	2A	F
Sierra College Boulevard	north of Douglas Boulevard	A-1, A-2, O-1, O-2	W-2A, W-2B, W-2C, W-2D, W-2E	25,286	4AD	D			2		12	25,300	0.06%	4AD	D			2		12	25,300	0.06%	4AD	D					8	25,294	0.03%	4AD	D			2		12	25,300	0.06%	4AD	D			2		8	25,296	0.04%	4AD	D
Eureka Road	east of N. Sunrise Avenue	A-3, A-4, O-3, O-4, BP-1		38,908	6AD	D						38,908		6AD	D						38,908		6AD	D						38,908		6AD	D						38,908		6AD	D						38,908		6AD	D
Douglas Boulevard	east of A-F Road	A-1,O-1	W-1A, W-2A, W-3A, W-4A, W-5A, W-6A, W-7A	13,184	2A	D						13,184		2A	D						13,184		2A	D						13,184		2A	D						13,184		2A	D						13,184		2A	D
Douglas Boulevard	Barton Road to A-F Road	A-1, A-2, A-3, A-4, O-1, O-2, O-3, O-	W-1A, W-2A, W-4A, W-1B, W-2B, W-4B, W-1C, W-2C, W-1D, W-	40,200	4AD	F			2		56	40,258	0.14%	4AD	F			2		56	40,258	0.14%	4AD	F					16	40,216	0.04%	4AD	F			2		56	40,258	0.14%	4AD	F			2		48	40,250	0.12%	4AD	F
Douglas Boulevard	Barton to Sierra Colleg Blvd.			46,491	4AD	F						46,491		4AD	F						46,491		4AD	F						46,491		4AD	F						46,491		4AD	F						46,491		4AD	F
Blue Ravine Road	Oak Avenue Parkway to Green Valley Road/East Natoma Street	A-5, A-6,O-5, O-6, BP-2, BP3	W-6D, W-6E	19,500	4AD	D					4	19,504	0.02%	4AD	D					4	19,504	0.02%	4AD	D					4	19,504	0.02%	4AD	D					4	19,504	0.02%	4AD	D					4	19,504	0.02%	4AD	D
East Natoma St	Cimmaron Circle to Folsom Dam Road		W-1D, 3D, 4D, 5D, 1E, 2E, 3E, 4E, 5E	16,600	4AU	C					120	16,720	0.72%	4AU	C					120	16,720	0.72%	4AU	C					120	16,720	0.72%	4AU	C					120	16,720	0.72%	4AU	C					92	16,692	0.55%	4AU	C
East Natoma St	Folsom Dam Road to Green Valley Road	A-5, A-6,O-5, O-6, BP-2, BP3	W-7A, 7B, 7C, 1D,2D,3D,4D,5D,6D,7D, 1E, 2E, 3E, 4E, 5E, 6E	27,100	4AU	D					140	27,240	0.52%	4AU	D					136	27,236	0.50%	4AU	D					136	27,236	0.50%	4AU	D					140	27,240	0.52%	4AU	D					100	27,200	0.37%	4AU	D
Green Valley Road	East Natoma Street to Sophia Parkway	A-6, O-6	W-1E, W-2E, W-3E, W-4E, W-5E, W-6E	32,000	4AU	F						32,000		4AU	F						32,000		4AU	F						32,000		4AU	F						32,000		4AU	F						32,096	0.30%	4AU	F
Greenback Lane	Hazel Avenue to Madison Avenue		W-4B, W-4C, W-4D, W-4E	24,100	4AMD	B					84	24,184	0.35%	4AMD	B					84	24,184	0.35%	4AMD	B					52	24,152	0.22%	4AMD	B					84	24,184	0.35%	4AMD	B					72	24,172	0.30%	4AMD	B
East Bidwell Street	Clarksville Road to Iron Point Road	A-5, A-6, O-5, O-6, BP-2, BP-3	W-6D, W-6E	39,300	4AD	F					4	39,304	0.01%	4AD	F					4	39,304	0.01%	4AD	F					4	39,304	0.01%	4AD	F					4	39,304	0.01%	4AD	F					44	39,344	0.11%	4AD	F
Oak Avenue Parkway	Blue Ravine Road to East Bidwell Street		W-6D, W-6E	22,200	6AD	C					4	22,204	0.02%	6AD	C					4	22,204	0.02%	6AD	C					4	22,204	0.02%	6AD	C					4	22,204	0.02%	6AD	C					44	22,244	0.20%	6AD	C
Scott Road (south)	south of White Rock Road	A-5, A-6, BP-2, BP-3		1,652	2C	A/B						1,652		2C	A/B						1,652		2C	A/B						1,652		2C	A/B						1,652		2C	A/B						1,652		2C	A/B
White Rock Road	between Scott Road (south) and Scott Road (north)	A-5, A-6, BP-2, BP-3		9,087	2C	E						9,087		2C	E						9,087		2C	E						9,087		2C	E						9,087		2C	E						9,087		2C	E
Scott Road (north)	north of White Rock Road	A-5, A-6, BP-2, BP-3		6,324	2C	D						6,324		2C	D						6,324		2C	D						6,324		2C	D						6,324		2C	D						6,324		2C	D
US50	Hazel Avenue to Folsom Boulevard	O-5, O-6	W-5A, W-5B, W-5C, W-5D, W-5E	116,800	4FA	F					84	116,884	0.07%	4FA	F					84	116,884	0.07%	4FA	F					52	116,852	0.04%	4FA	F					84	116,884	0.07%	4FA	F					72	116,872	0.06%	4FA	F
US50	Folsom Boulevard to Prairie City Road	O-5, O-6	W-6A, W-6B, W-6C	99,000	4F	F					4	99,004	0.00%	4F	F					4	99,004	0.00%	4F	F						99,000		4F	F					8	99,008	0.01%	4F	F					4	99,004	0.00%	4F	F
US50	Prairie City Road to East Bidwell Street	O-5, O-6	W-6A, W-6B, W-6C	71,800	4F	E					4	71,804	0.01%	4F	E					4	71,804	0.01%	4F	E						71,800		4F	E					8	71,808	0.01%	4F	E					4	71,804	0.01%	4F	E
US50	East Bidwell St to County Line		W-6A, W-6B, W-6C, W-6D, W-6E	81,900	4F	F					8	81,908	0.01%	4F	F					8	81,908	0.01%	4F	F					4	81,904	0.00%	4F	F					8	81,908	0.01%	4F	F					8	81,908	0.01%	4F	F
Regional Access Routes																																																			
Hammonton-Smartville (H-S) Road	north of N. Beale Road	A-1, A-2		9,043	2C	E						9,043		2C	E						9,043		2C	E						9,043		2C	E						9,043		2C	E						9,043		2C	E
N Beale Road	south of H-S Road	A-1, A-2		27,805	4AU	E						27,805		4AU	E						27,805		4AU	E						27,805		4AU	E						27,805		4AU	E						27,805		4AU	E
Feather River Blvd. Ramp	south of N. Beale Street	A-1, A-2																																																	
				56,574	4AMD	F						56,574		4AMD	F						56,574		4AMD	F						56,574		4AMD	F						56,574		4AMD	F						56,574		4AMD	F
Highway 70	Yuba County, east of Feather River Boulevard interchange	A-1, A-2		100,046	4F	F						100,046		4F	F						100,046		4F	F						100,046		4F	F						100,046		4F	F						100,046		4F	F
Highway 65	Roseville, northeast of Route 80	A-1, A-2		22,153	2A	F						22,153		2A	F						22,153		2A	F						22,153		2A	F						22,153		2A	F						22,153		2A	F
Highway 65	Lincoln, northeast of 7th Street	A-1, A-2		23,225	2A	F						23,225		2A	F						23,225		2A	F						23,225		2A	F						23,225		2A	F						23,225		2A	F
Interstate 80	Roseville, northeast of Route 65	A-1, A-2, O-1, O-2		126,757	4FA	F			2			126,759	0.00%	4FA	F			2			126,759	0.00%	4FA	F						126,757		4FA	F			2			126,759	0.002%	4FA	F			2			126,759	0.002%	4FA	F
Interstate 80	Rocklin, south of Sierra College Boulevard	A-1, A-2, O-1, O-2		104,902	4FA	F			2			104,904	0.00%	4FA	F			2			104,904	0.00%	4FA	F						104,902		4FA	F			2			104,904	0.002%	4FA	F			2			104,904	0.002%	4FA	F

New Aggregate trips are those trips hauling aggregate materials (fine & coarse filters, road base and asphalt)
New Offsite trips are those trips hauling offsite materials (slope u/s, toe drain, hdpe pipe, pipe filter, u/s filter, seeding, rebar)
New BP trips are those trips hauling aggregate materials (cement, fine & coarse aggregates) directly to the batch plants. This does not include trips from the batch plants to the project features
New Equipment trips are those trips hauling in equipment to each project feature staging area (staging area assumed adjacent to project feature for hauling evaluation).

Table 3.9-79
2008 Daily Project Impacts Alternatives 1 through 5

| Roadway | Location | ROUTE DESIGNATIONS Materials/ Equip. Routes | Worker Routes | 2008 | | |

Table 3.9-80
2009 Daily Project Impacts Alternatives 1 through 5

Roadway	Location	ROUTE DESIGNATIONS: Materials/ Equip. Routes	Worker Routes	No Action/No Project			Alternative 1									Alternative 2										2009 Alternative 3										Alternative 4										Alternative 5									
				ADT	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS
Folsom Boulevard	Natoma Street to Blue Ravine Road		W-3A, W-5A, W-6A, W-3B, W-5B, W-6B, W-3C, W-5C, W-6C, W-3D, W-5D, W-3E, W-5E	40,103	4AD	F					416	40,519	1.04%	4AD	F					436	40,539	1.09%	4AD	F					304	40,407	0.76%	4AD	F					416	40,519	1.04%	4AD	F					256	40,359	0.64%	4AD	F
Folsom Boulevard	Leidesdorff Street to Greenback Lane		W-3A, W-5A, W-6A, W-3B, W-5B, W-6B, W-3C, W-5C, W-6C	34,586	4AD	D					156	34,742	0.45%	4AD	D					156	34,742	0.45%	4AD	D					44	34,630	0.13%	4AD	D					156	34,742	0.45%	4AD	D					156	34,742	0.45%	4AD	D
Folsom-Auburn Road	Oak Hill Drive to Folsom Dam Road	A-4, O-4, BP-1	W-1C, 2C, 3C, 4C, 5C, 6C, 7C, 1D,2D, 2E, W-3A, 5A, 6A, 3B, 5B,	42,755	2A	F	15	3	2		348	43,123	0.86%	2A	F	21	49	2		356	43,183	1.00%	2A	F					108	42,863	0.25%	2A	F	15	2	2		348	43,122	0.86%	2A	F	16	4	2		308	43,085	0.77%	2A	F
Folsom-Auburn Road	Folsom Dam Road to Oak Avenue		W-3A, 5A, 6A, 7A, 3B, 4B, 5B, 6B, 7B, 1E, 2E,	22,704	4AU	D					196	22,900	0.86%	4AU	D					188	22,892	0.83%	4AU	D					72	22,776	0.32%	4AU	D					164	22,868	0.72%	4AU	D					196	22,900	0.86%	4AU	D
Auburn-Folsom (A-F) Road	Douglas Boulevard to Eureka Road	A-2,A-3,A-4, O-2, O-3, O-4, BP-1	W-3A, 5A, 6A, 7A, 1B, 2B, 3B, 4B, 5B, 6B, 7B, 1C, 2C, 1D, 2D, 1E, 2E	36,389	4AU	E	15	3	2		172	36,581	0.53%	4AU	F	21	49	4		180	36,643	0.70%	4AU	F					112	36,501	0.31%	4AU	F	15	2	4		172	36,582	0.53%	4AU	F	16	4	4		132	36,545	0.43%	4AU	F
Auburn-Folsom (A-F) Road	Eureka Road to Oak Hill Drive	A-2, A-3, O-2, O-3, BP-1	W-3A, 5A, 6A, 7A, 1B, 2B, 3B, 4B, 5B, 6B, 7B, 1C, 2C, 1D, 2D, 1E, 2E	32,358	2A	F					172	32,530	0.53%	2A	F			2		180	32,540	0.56%	2A	F					112	32,470	0.35%	2A	F			2		172	32,532	0.54%	2A	F			2		132	32,492	0.41%	2A	F
Sierra College Boulevard	north of Douglas Boulevard	A-1, A-2, O-1, O-2	W-2A, W-2B, W-2C, W-2D, W-2E	26,827	4AD	D					48	26,875	0.18%	4AD	D			2		52	26,881	0.20%	4AD	D	7	3	6		36	26,879	0.19%	4AD	D			2		48	26,877	0.19%	4AD	D			2		28	26,857	0.11%	4AD	D
Eureka Road	east of N. Sunrise Avenue	A-3, A-4, O-3, O-4, BP-1		41,279	6AD	D	15	3	2			41,299	0.05%	6AD	D	21	49	2			41,351	0.17%	6AD	D						41,279		6AD	D	15	2	2			41,298	0.05%	6AD	D	16	4	2			41,301	0.05%	6AD	D
Douglas Boulevard	east of A-F Road	A-1,O-1	W-1A, W-2A, W-3A, W-4A, W-5A, W-6A, W-7A	13,988	2A	D						13,988		2A	D						13,988		2A	D	7	3	6		92	14,096	0.77%	2A	D						13,988		2A	D						13,988		2A	D
Douglas Boulevard	Barton Road to A-F Road	A-1, A-2, A-3, A-4, O-1, O-2, O-3, O-4, BP-1	W-1A, W-2A, W-4A, W-1B, W-2B, W-4B, W-1C, W-2C, W-1D, W-2D, W-1E, W-2E	42,649	4AD	F	15	3	2		128	42,797	0.35%	4AD	F	21	49	4		136	42,859	0.49%	4AD	F	7	3	6		108	42,773	0.29%	4AD	F	15	2	4		128	42,798	0.35%	4AD	F	16	4	4		88	42,761	0.26%	4AD	F
Douglas Boulevard	Barton to Sierra Colleg Blvd.			49,323	4AD	F						49,323		4AD	F						49,323		4AD	F						49,323		4AD	F						49,323		4AD	F						49,323		4AD	F
Blue Ravine Road	Oak Avenue Parkway to Green Valley Road/East Natoma Street	A-5, A-6,O-5, O-6, BP-2, BP3	W-6D, W-6E	20,688	4AD	D	79	11	4	69	20	20,871	0.88%	4AD	D	35	79	6	55	20	20,883	0.94%	4AD	D	1	4	4	117	20	20,834	0.71%	4AD	D	51	45	4	31	20	20,839	0.73%	4AD	D	69	3	4		8	20,772	0.41%	4AD	D
East Natoma St	Cimmaron Circle to Folsom Dam Road		W-1D, 3D, 4D, 5D, 1E, 2E, 3E, 4E, 5E	17,611	4AU	D					532	18,143	3.02%	4AU	D					372	17,983	2.11%	4AU	D					532	18,143	3.02%	4AU	D					532	18,143	3.02%	4AU	D					212	17,823	1.20%	4AU	D
East Natoma St	Folsom Dam Road to Green Valley Road	A-5, A-6,O-5, O-6, BP-2, BP3	W-7A, 7B, 7C, 1D,2D,3D,4D,5D,6D,7D, 1E, 2E, 3E, 4E, 5E, 6E	28,751	4AU	E	79	11	4	69	596	29,510	2.64%	4AU	F	35	79	6	55	644	29,570	2.85%	4AU	F	1	4	4	117	588	29,465	2.48%	4AU	F	51	45	4	31	596	29,478	2.53%	4AU	F	69	3	4		232	29,059	1.07%	4AU	F
Green Valley Road	East Natoma Street to Sophia Parkway	A-6, O-6	W-1E, W-2E, W-3E, W-4E, W-5E, W-6E	33,949	4AU	F	75	3	2		204	34,233	0.84%	4AU	F	35	3	2		124	34,113	0.48%	4AU	F	1	1	2		204	34,157	0.61%	4AU	F	51	3	2		204	34,209	0.77%	4AU	F	69	3	4		220	34,245	0.87%	4AU	F
Greenback Lane	Hazel Avenue to Madison Avenue		W-4B, W-4C, W-4D, W-4E	25,568	4AMD	C					356	25,924	1.39%	4AMD	C					372	25,940	1.45%	4AMD	C					228	25,796	0.89%	4AMD	C					356	25,924	1.39%	4AMD	C					216	25,784	0.84%	4AMD	C
East Bidwell Street	Clarksville Road to Iron Point Road	A-5, A-6, O-5, O-6, BP-2, BP-3	W-6D, W-6E	41,694	4AD	F	11	4	69	326	20	42,124	1.03%	4AD	F	79	4	69	326	20	42,192	1.19%	4AD	F	4	4	117	252	20	42,091	0.95%	4AD	F	45	4	31	262	20	42,056	0.87%	4AD	F	3	4		152	8	41,861	0.40%	4AD	F
Oak Avenue Parkway	Blue Ravine Road to East Bidwell Street		W-6D, W-6E	23,552	6AD	C					20	23,572	0.08%	6AD	C					20	23,572	0.08%	6AD	C					20	23,572	0.08%	6AD	C					20	23,572	0.08%	6AD	C					8	23,560	0.03%	6AD	C
Scott Road (south)	south of White Rock Road	A-5, A-6, BP-2, BP-3		1,754	2C	A/B	79			69		1,902	8.44%	2C	A/B	35			55		1,844	5.13%	2C	A/B	1			117		1,872	6.73%	2C	A/B	51			31		1,836	4.68%	2C	A/B	69					1,823	3.93%	2C	A/B
White Rock Road	between Scott Road (south) and Scott Road (north)	A-5, A-6, BP-2, BP-3		9,641	2C	E	79			69		9,789	1.54%	2C	E	35			55		9,731	0.93%	2C	E	1			117		9,759	1.22%	2C	E	51			31		9,723	0.85%	2C	E	69					9,710	0.72%	2C	E
Scott Road (north)	north of White Rock Road	A-5, A-6, BP-2, BP-3		6,710	2C	D		11	4			6,725	0.22%	2C	D		79	6			6,795	1.27%	2C	D		4	4			6,718	0.12%	2C	D		45	4			6,759	0.73%	2C	D		3	4			6,717	0.10%	2C	D
US50	Hazel Avenue to Folsom Boulevard	O-5, O-6	W-5A, W-5B, W-5C, W-5D, W-5E	123,914	4FA	F		11	4		356	124,285	0.30%	4FA	F		79	6		372	124,371	0.37%	4FA	F		4	4		264	124,186	0.22%	4FA	F		45	4		356	124,319	0.33%	4FA	F		3	4		216	124,137	0.18%	4FA	F
US50	Folsom Boulevard to Prairie City Road	O-5, O-6	W-6A, W-6B, W-6C	105,030	4F	F		11	4		12	105,057	0.03%	4F	F		79	6		12	105,127	0.09%	4F	F		4	4		4	105,042	0.01%	4F	F		45	4		12	105,091	0.06%	4F	F		3	4		12	105,049	0.02%	4F	F
US50	Prairie City Road to East Bidwell Street	O-5, O-6	W-6A, W-6B, W-6C	76,173	4F	E		11	4		12	76,200	0.04%	4F	E		79	6		12	76,270	0.13%	4F	E		4	4		4	76,185	0.02%	4F	E		45	4		12	76,234	0.08%	4F	E		3	4		12	76,192	0.02%	4F	E
US50	East Bidwell St to County Line		W-6A, W-6B, W-6C, W-6D, W-6E	86,888	4F	F					32	86,920	0.04%	4F	F					32	86,920	0.04%	4F	F					24	86,912	0.03%	4F	F					32	86,920	0.04%	4F	F					20	86,908	0.02%	4F	F
Regional Access Routes																																																					
Hammonton-Smartville (H-S) Road	north of N. Beale Road	A-1, A-2		9,594	2C	E						9,594		2C	E						9,594		2C	E						9,608	0.15%	2C						9,594		2C	E						9,594		2C	E
N Beale Road	south of H-S Road	A-1, A-2		29,499	4AU	F						29,499		4AU	F						29,499		4AU	F						29,513	0.05%	4AU						29,499		4AU	F						29,499		4AU	F
Feather River Blvd. Ramp	south of N. Beale Street	A-1, A-2																										14																								
Highway 70	Yuba County, east of Feather River Boulevard interchange	A-1, A-2		63,568	4AMD	F						63,568		4AMD	F						63,568		4AMD	F					14	63,582	0.02%	4AMD						63,568		4AMD	F						63,568		4AMD	F
Highway 65	Roseville, northeast of Route 80	A-1, A-2		112,412	4F	F						112,412		4F	F						112,412		4F	F					14	112,426	0.01%	4F						112,412		4F	F						112,412		4F	F
Highway 65	Lincoln, northeast of 7th Street	A-1, A-2		24,892	2A	F						24,892		2A	F						24,892		2A	F					14	24,906	0.06%	2A						24,892		2A	F						24,892		2A	F
Highway 65	Wheatland, northeast of Evergreen Drive	A-1, A-2		26,097	2A	F						26,097		2A	F						26,097		2A	F					14	26,111	0.05%	2A						26,097		2A	F						26,097		2A	F
Interstate 80	Roseville, northeast of Route 65	A-1, A-2, O-1, O-2		134,477	4FA	F						134,477		4FA	F			2		4	134,483	0.00%	4FA	F	3	6		23		134,509	0.02%	4FA	F		2		4		134,483	0.00%	4FA	F			2		4	134,483	0.00%	4FA	F
Interstate 80	Rocklin, south of Sierra College Boulevard	A-1, A-2, O-1, O-2		111,292	4FA	F						111,292		4FA	F			2			111,294	0.00%	4FA	F	3	6				111,301	0.01%	4FA	F						111,292		4FA	F						111,292		4FA	F

New Aggregate trips are those trips hauling aggregate materials (fine & coarse filters, road base and asphalt'
New Offsite trips are those trips hauling offsite materials (slope u/s, toe drain, hdpe pipe, pipe filter, u/s filter, seeding, rebar)
New BP trips are those trips hauling aggregate materials (cement, fine & coarse aggregates) directly to the batch plants. This does not include trips from the batch plants to the project features
New Equipment trips are those trips hauling in equipment to each project feature staging area (staging area assumed adjacent to project feature for hauling evaluation).

Table 3.9-81
2010 Daily Project Impacts Alternatives 1 through 5

Roadway	Location	ROUTE DESIGNATION Materials/ Equip. Routes	Worker Routes	No Action/No Project			Alternative 1									Alternative 2									Alternative 3									Alternative 4									Alternative 5								
				ADT	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS
Folsom Boulevard	Natoma Street to Blue Ravine Road		W-3A, W-5A, W-6A, W-3B, W-5B, W-6B, W-3C, W-5C, W-6C, W-3D, W-5D, W-3E, W-5E	40,906	4AD	F					316	41,222	0.77%	4AD	F					336	41,242	0.82%	4AD	F					200	41,106	0.49%	4AD	F					316	41,222	0.77%	4AD	F					256	41,162	0.63%	4AD	F
Folsom Boulevard	Leidesdorff Street to Greenback Lane		W-3A, W-5A, W-6A, W-3B, W-5B, W-6B, W-3C, W-5C, W-6C	35,278	4AD	D					116	35,394	0.33%	4AD	D					116	35,394	0.33%	4AD	D						35,278		4AD	D					116	35,394	0.33%	4AD	D					156	35,434	0.44%	4AD	E
Folsom-Auburn Road	Oak Hill Drive to Folsom Dam Road	A-4, O-4, BP-1	W-1C, 2C, 3C, 4C, 5C, 6C, 7C, 1D,2D, 2E, W-3A, 5A, 6A, 3B, 5B, 6B,1E	43,611	2A	F	15	3	2		292	43,923	0.72%	2A	F	21	49	2		300	43,983	0.85%	2A	F					48	43,659	0.11%	2A	F	15	2	2		292	43,922	0.71%	2A	F	16	4	2		308	43,941	0.76%	2A	F
Folsom-Auburn Road	Folsom Dam Road to Oak Avenue		W-3A, 5A, 6A, 7A, 3B, 4B, 5B, 6B, 7B, 1E, 2E, 5C	23,159	4AU	D					120	23,279	0.52%	4AU	D					112	23,271	0.48%	4AU	D					24	23,183	0.10%	4AU	D					120	23,279	0.52%	4AU	D					196	23,355	0.85%	4AU	D
Auburn-Folsom (A-F) Road	Douglas Boulevard to Eureka Road	A-2,A-3,A-4, O-2, O-3, O-4, BP-1	W-3A, 5A, 6A, 7A, 1B, 2B, 3B, 4B, 5B, 6B, 7B, 1C, 2C, 1D, 2D, 1E, 2E	37,117	4AU	F	15	3	2		72	37,209	0.25%	4AU	F	21	49	2		80	37,269	0.41%	4AU	F					48	37,165	0.13%	4AU	F	15	2	2		72	37,208	0.25%	4AU	F	16	4	4		132	37,273	0.42%	4AU	F
Auburn-Folsom (A-F) Road	Eureka Road to Oak Hill Drive	A-2, A-3, O-2, O-3, BP-1	W-3A, 5A, 6A, 7A, 1B, 2B, 3B, 4B, 5B, 6B, 7B, 1C, 2C, 1D, 2D, 1E, 2E	33,006	2A	F					72	33,078	0.22%	2A	F					80	33,086	0.24%	2A	F					48	33,054	0.15%	2A	F					72	33,078	0.22%	2A	F			2		132	33,140	0.41%	2A	F
Blue Ravine Road	Folsom Boulevard to Sibley Street			19,588		C						19,588			C						19,588			C						19,588			C						19,588			C					132	19,720	0.67%		
Blue Ravine Road	Sibley Street to Riley Street			31,491		F						31,491			F						31,491			F						31,491			F						31,491			F					132	31,623	0.42%		
Sierra College Boulevard	north of Douglas Boulevard	A-1, A-2, O-1, O-2	W-2A, W-2B, W-2C, W-2D, W-2E	27,364	4AD	D					36	27,400	0.13%	4AD	D					40	27,404	0.15%	4AD	D					24	27,388	0.09%	4AD	D					36	27,400	0.13%	4AD	D					28	27,394	0.11%	4AD	D
Eureka Road	east of N. Sunrise Avenue	A-3, A-4, O-3, O-4, BP-1		42,105	6AD	D	15	3	2			42,125	0.05%	6AD	D	21	49	2			42,177	0.17%	6AD	D						42,105		6AD	D						42,105		6AD	D						42,105		6AD	D
Douglas Boulevard	east of A-F Road	A-1,O-1	W-1A, W-2A, W-3A, W-4A, W-5A, W-6A,	14,268	2A	D						14,268		2A	D						14,268		2A	D						14,268		2A	D						14,268		2A	D						14,268		2A	D
Douglas Boulevard	Barton Road to A-F Road	A-1, A-2, A-3, A-4, O-1, O-2, O-3, O-4, BP-1	W-1A, W-2A, W-4A, W-1B, W-2B, W-4B, W-1C, W-2C, W-1D, W-2D, W-1E, W-2E	43,502	4AD	F	15	3	2		72	43,594	0.21%	4AD	F	21	49	2		80	43,654	0.35%	4AD	F					48	43,550	0.11%	4AD	F	15	2	2		72	43,593	0.21%	4AD	F	16	4	4		88	43,614	0.26%	4AD	F
Douglas Boulevard	Barton to Sierra Colleg Blvd.			50,310	4AD	F						50,310		4AD	F						50,310		4AD	F							4AD	F						50,310		4AD	F						50,310		4AD	F
Blue Ravine Road	Oak Avenue Parkway to Green Valley Road/East Natoma Street	A-5, A-6,O-5, O-6, BP-2, BP3	W-6D, W-6E	21,102	4AD	D	79	11	3	69	16	21,280	0.84%	4AD	D	35	77	6	43	16	21,279	0.84%	4AD	D	1	4	3	117	16	21,243	0.67%	4AD	D	51	45	3	31	16	21,248	0.69%	4AD	D	69	3	1		8	21,183	0.38%	4AD	D
East Natoma St	Cimmaron Circle to Folsom Dam Road		W-1D, 3D, 4D, 5D, 1E, 2E, 3E, 4E, 5E	17,964	4AU	D					424	18,388	2.36%	4AU	D					448	18,412	2.49%	4AU	D					412	18,376	2.29%	4AU	D					412	18,376	2.29%	4AU	D					212	18,176	1.18%	4AU	D
East Natoma St	Folsom Dam Road to Green Valley Road	A-5, A-6,O-5, O-6, BP-2, BP3	W-7A, 7B, 7C, 1D,2D,3D,4D,5D,6D,7D, 1E, 2E, 3E, 4E, 5E, 6E	29,327	4AU	F	79	11	3	69	456	29,945	2.11%	4AU	F	35	77	6	43	504	29,992	2.27%	4AU	F	1	4	3	117	452	29,904	1.97%	4AU	F	51	45	3	31	456	29,913	2.00%	4AU	F	69	3	1		232	29,632	1.04%	4AU	F
Green Valley Road	East Natoma Street to Sophia Parkway	A-6, O-6	W-1E, W-2E, W-3E, W-4E, W-5E, W-6E	34,628	4AU	F	75	3	1		212	34,919	0.84%	4AU	F	35	35	2		124	34,824	0.57%	4AU	F	1	1	1		208	34,839	0.61%	4AU	F	51	3	1		204	34,887	0.75%	4AU	F	69	3	1		220	34,921	0.85%	4AU	F
Greenback Lane	Hazel Avenue to Madison Avenue		W-4B, W-4C, W-4D, W-4E	26,080	4AMD	C					272	26,352	1.04%	4AMD	C					288	26,368	1.10%	4AMD	C					176	26,256	0.67%	4AMD	C					272	26,352	1.04%	4AMD	C					216	26,296	0.83%	4AMD	C
Oak Avenue	Hazel Avenue to Santa Juanita Avenue			13,420	2AMD	B						13,420		2AMD	B						13,420		2AMD	B						13,420		2AMD	B						13,420		2AMD	B						13,420		2AMD	B
East Bidwell Street	Blue Ravine Road to Oak Avenue Parkway			27,162	4AD	D						27,162		4AD	D						27,162		4AD	D						27,162		4AD	D						27,162		4AD	D						27,162		4AD	D
East Bidwell Street	Clarksville Road to Iron Point Road	A-5, A-6, O-5, O-6, BP-2, BP-3	W-6D, W-6E	42,528	4AD	F	11	3	69	324	16	42,951	0.99%	4AD	F					16	42,544	0.04%	4AD	F	4	3	117	250	16	42,918	0.92%	4AD	F	45	3	31	260	16	42,883	0.83%	4AD	F	3	1		146	8	42,686	0.37%	4AD	F
Oak Avenue Parkway	Blue Ravine Road to East Bidwell Street		W-6D, W-6E	24,024	6AD	C					16	24,040	0.07%	6AD	C					16	24,040	0.07%	6AD	C					16	24,040	0.07%	6AD	C					16	24,040	0.07%	6AD	C					8	24,032	0.03%	6AD	C
Oak Avenue Parkway	East Bidwell St to Riley St			24,024		C			69	296		24,389	1.52%					43	156		24,223	0.83%					117	236		24,377	1.47%					31	164		24,219	0.81%					138		24,162	0.57%		
Scott Road (south)	south of White Rock Road	A-5, A-6, BP-2, BP-3		1,790	2C	A/B	79			69		1,938	8.27%	2C	A/B	35			43		1,868	4.36%	2C	A/B						1,790		2C	A/B						1,790		2C	A/B						1,790		2C	A/B
White Rock Road	between Scott Road (south) and Scott Road (north)	A-5, A-6, BP-2, BP-3		9,834	2C	F	79			69		9,982	1.50%	2C	F	35			43		9,912	0.79%	2C	F						9,834		2C	F						9,834		2C	F						9,834		2C	F
Scott Road (north)	north of White Rock Road	A-5, A-6, BP-2, BP-3		6,845	2C	D		11	3			6,859	0.20%	2C	D		77	6			6,928	1.21%	2C	D						6,845		2C	D						6,845		2C	D						6,845		2C	D
US50	Hazel Avenue to Folsom Boulevard	O-5, O-6	W-5A, W-5B, W-5C, W-5D, W-5E	126,393	4FA	F		11	3		272	126,679	0.23%	4FA	F		77	6		288	126,764	0.29%	4FA	F		4	3		176	126,576	0.14%	4FA	F		45	3		272	126,713	0.25%	4FA	F		3	1		216	126,613	0.17%	4FA	F
US50	Folsom Boulevard to Prairie City Road	O-5, O-6	W-6A, W-6B, W-6C	107,131	4F	F		11	3		8	107,153	0.02%	4F	F		77	6		8	107,222	0.08%	4F	F		4	3			107,138	0.01%	4F	F		45	3		8	107,187	0.05%	4F	F		3	1		12	107,147	0.01%	4F	F
US50	Prairie City Road to East Bidwell Street	O-5, O-6	W-6A, W-6B, W-6C	77,697	4F	E		11	3		8	77,719	0.03%	4F	E		77	6		8	77,788	0.12%	4F	E		4	3			77,704	0.01%	4F	E		45	3		8	77,753	0.07%	4F	E		3	1		12	77,713	0.02%	4F	E
US50	East Bidwell St to County Line		W-6A, W-6B, W-6C, W-6D, W-6E	88,626	4F	F					24	88,650	0.03%	4F	F					24	88,650	0.03%	4F	F					16	88,642	0.02%	4F	F					24	88,650	0.03%	4F	F					20	88,646	0.02%	4F	F
Regional Access Routes																																																			
Hammonton-Smartville (H-S) Road	north of N. Beale Road	A-1, A-2		9,786	2C	E						9,786		2C	E						9,786		2C	E						9,786		2C	E						9,786		2C	E						9,786		2C	E
N Beale Road	south of H-S Road	A-1, A-2		30,088	4AU	F						30,088		4AU	F						30,088		4AU	F						30,088		4AU	F						30,088		4AU	F						30,088		4AU	F
Feather River Blvd. Ramp	south of N. Beale Street	A-1, A-2																																																	
Highway 70	Yuba County, east of Feather River Boulevard interchange	A-1, A-2		67,383	4AMD	F						67,383		4AMD	F						67,383		4AMD	F						67,383		4AMD	F						67,383		4AMD	F						67,383		4AMD	F
Highway 65	Roseville, northeast of Route 80	A-1, A-2		119,157	4F	F						119,157		4F	F						119,157		4F	F						119,157		4F	F						119,157		4F	F						119,157		4F	F
Highway 65	Lincoln, northeast of 7th Street	A-1, A-2		26,386	2A	F						26,386		2A	F						26,386		2A	F						26,386		2A	F						26,386		2A	F						26,386		2A	F
Highway 65	Wheatland, northeast of Evergreen Drive	A-1, A-2		27,663	2A	F						27,663		2A	F						27,663		2A	F						27,663		2A	F						27,663		2A	F						27,663		2A	F
Interstate 80	Roseville, northeast of Route 65	A-1, A-2, O-1, O-2		138,512	4FA	F						138,512		4FA	F						138,512		4FA	F						138,512		4FA	F						138,512		4FA	F		2		4		138,518	0.00%	4FA	F
Interstate 80	Rocklin, south of Sierra College Boulevard	A-1, A-2, O-1, O-2		114,631	4FA	F						114,631		4FA	F						114,631		4FA	F						114,631		4FA	F						114,631		4FA	F						114,631		4FA	F

New Aggregate trips are those trips hauling aggregate materials (fine & coarse filters, road base and asphalt)
New Offsite trips are those trips hauling offsite materials (slope u/s, toe drain, hdpe pipe, pipe filter, u/s filter, seeding, rebar)
New BP trips are those trips hauling aggregate materials (cement, fine & coarse aggregates) directly to the batch plants. This does not include trips from the batch plants to the project features
New Equipment trips are those trips hauling in equipment to each project feature staging area (staging area assumed adjacent to project feature for hauling evaluation).

Table 3.9-82
2011 Daily Project Impacts Alternatives 1 through 5

Roadway	Location	ROUTE DESIGNATIONS Materials/ Equip. Routes	Worker Routes	No Action/No Project			Alternative 1									Alternative 2									Alternative 3									Alternative 4									Alternative 5								
				ADT	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS
Folsom Boulevard	Natoma Street to Blue Ravine Road		W-3A, W-5A, W-6A, W-3B, W-5B, W-6B, W-3C, W-5C, W-6C, W-3D, W-5D, W-3E, W-5E	41,725	4AD	F					108	41,833	0.26%	4AD	F					300	42,025	0.72%	4AD	F					188	41,913	0.45%	4AD	F					188	41,913	0.45%	4AD	F					336	42,061	0.81%	4AD	F
Folsom Boulevard	Leidesdorff Street to Greenback Lane		W-3A, W-5A, W-6A, W-3B, W-5B, W-6B, W-3C, W-5C, W-6C	35,984	4AD	E						35,984		4AD	E						35,984		4AD	E						35,984		4AD	E						35,984		4AD	E					156	36,140	0.43%	4AD	E
Folsom-Auburn Road	Oak Hill Drive to Folsom Dam Road	A-4, O-4, BP-1	W-1C, 2C, 3C, 4C, 5C, 6C, 7C, 1D,2D, 2E, W-3A, 5A, 6A, 3B, 5B, 6B,1E	44,484	2A	F					24	44,508	0.05%	2A	F					72	44,556	0.16%	2A	F					40	44,524	0.09%	2A	F					40	44,524	0.09%	2A	F	16	4	2		324	44,830	0.78%	2A	F
Folsom-Auburn Road	Folsom Dam Road to Oak Avenue		W-3A, 5A, 6A, 7A, 3B, 4B, 5B, 6B, 7B, 1E, 2E, 5C	23,623	4AU	D						23,623		4AU	D					16	23,639	0.07%	4AU	D						23,623		4AU	D						23,623		4AU	D					164	23,787	0.69%	4AU	D
Auburn-Folsom (A-F) Road	Douglas Boulevard to Eureka Road	A-2,A-3,A-4, O-2, O-3, O-4, BP-1	W-3A, 5A, 6A, 7A, 1B, 2B, 3B, 4B, 5B, 6B, 7B, 1C, 2C, 1D, 2D, 1E, 2E	37,860	4AU	F					24	37,884	0.06%	4AU	F					72	37,932	0.19%	4AU	F					40	37,900	0.11%	4AU	F					40	37,900	0.11%	4AU	F	16	4	4		148	38,032	0.45%	4AU	F
Auburn-Folsom (A-F) Road	Eureka Road to Oak Hill Drive	A-2, A-3, O-2, O-3, BP-1	W-3A, 5A, 6A, 7A, 1B, 2B, 3B, 4B, 5B, 6B, 7B, 1C, 2C, 1D, 2D, 1E, 2E	33,667	2A	F					24	33,691	0.07%	2A	F					72	33,739	0.21%	2A	F					40	33,707	0.12%	2A	F					40	33,707	0.12%	2A	F				2	148	33,817	0.45%	2A	F
Sierra College Boulevard	north of Douglas Boulevard	A-1, A-2, O-1, O-2	W-2A, W-2B, W-2C, W-2D, W-2E	27,912	4AD	D					12	27,924	0.04%	4AD	D					36	27,948	0.13%	4AD	D					20	27,932	0.07%	4AD	D					20	27,932	0.07%	4AD	D				2	36	27,950	0.14%	4AD	D
Eureka Road	east of N. Sunrise Avenue	A-3, A-4, O-3, O-4, BP-1		42,948	6AD	D						42,948		6AD	D						42,948		6AD	D						42,948		6AD	D						42,948		6AD	D						42,948		6AD	D
Douglas Boulevard	east of A-F Road	A-1,O-1	W-1A, W-2A, W-3A, W-4A, W-5A, W-6A, W-7A	14,554	2A	D						14,554		2A	D						14,554		2A	D						14,554		2A	D						14,554		2A	D						14,554		2A	D
Douglas Boulevard	Barton Road to A-F Road	A-1, A-2, A-3, A-4, O-1, O-2, O-3, O-4, BP-1	W-1A, W-2A, W-4A, W-1B, W-2B, W-4B, W-1C, W-2C, W-1D, W-2D, W-1E,	44,373	4AD	F					24	44,397	0.05%	4AD	F					72	44,445	0.16%	4AD	F					40	44,413	0.09%	4AD	F					40	44,413	0.09%	4AD	F	16	4	4		104	44,501	0.29%	4AD	F
Douglas Boulevard	Barton to Sierra Colleg Blvd.			51,317	4AD	F						51,317		4AD	F								4AD	F								4AD	F								4AD	F						51,317		4AD	F
Blue Ravine Road	Oak Avenue Parkway to Green Valley Road/East Natoma Street	A-5, A-6,O-5, O-6, BP-2, BP3	W-6D, W-6E	21,525	4AD	D	4	8	2	52	12	21,603	0.36%	4AD	D	69	45	6	49	20	21,714	0.88%	4AD	D		3	3	116	12	21,659	0.62%	4AD	D		42	4	20	12	21,603	0.36%	4AD	D	69	3	3	13	12	21,625	0.46%	4AD	D
East Natoma St	Cimmaron Circle to Folsom Dam Road		W-1D, 3D, 4D, 5D, 1E, 2E, 3E, 4E, 5E	18,324	4AU	D					216	18,540	1.18%	4AU	D					608	18,932	3.32%	4AU	D					376	18,700	2.05%	4AU	D					376	18,700	2.05%	4AU	D					372	18,696	2.03%	4AU	D
East Natoma St	Folsom Dam Road to Green Valley Road	A-5, A-6,O-5, O-6, BP-2, BP3	W-7A, 7B, 7C, 1D,2D,3D,4D,5D,6D ,7D, 1E, 2E, 3E, 4E, 5E, 6E	29,914	4AU	F	4	8	2	52	244	30,224	1.04%	4AU	F	69	45	6	49	672	30,755	2.81%	4AU	F		3	3	116	420	30,456	1.81%	4AU	F		42	4	20	420	30,400	1.62%	4AU	F	69	3	3	13	408	30,410	1.66%	4AU	F
Green Valley Road	East Natoma Street to Sophia Parkway	A-6, O-6	W-1E, W-2E, W-3E, W-4E, W-5E, W-6E	35,321	4AU	F						35,321		4AU	F	69	3	2		124	35,519	0.56%	4AU	F						35,321		4AU	F						35,321		4AU	F	69	3	1		220	35,614	0.83%	4AU	F
Greenback Lane	Hazel Avenue to Madison Avenue		W-4B, W-4C, W-4D, W-4E	26,602	4AMD	C					96	26,698	0.36%	4AMD	C					264	26,866	0.99%	4AMD	C					168	26,770	0.63%	4AMD	C					168	26,770	0.63%	4AMD	C					288	26,890	1.08%	4AMD	C
East Bidwell Street	Clarksville Road to Iron Point Road	A-5, A-6, O-5, O-6, BP-2, BP-3	W-6D, W-6E	43,379	4AD	F	8	2	52	132	8	43,581	0.47%	4AD		45	2	52	132	20	43,630	0.58%	4AD		3	3	116	244	12	43,757	0.87%	4AD		42	4	20	132	12	43,589	0.48%	4AD		3	3	13	176	12	43,586	0.48%	4AD	
Oak Avenue Parkway	Blue Ravine Road to East Bidwell Street		W-6D, W-6E	24,505	6AD	C					8	24,513	0.03%	6AD	C					20	24,525	0.08%	6AD	C					12	24,517	0.05%	6AD	C					12	24,517	0.05%	6AD	C					12	24,517	0.05%	6AD	C
Scott Road (south)	south of White Rock Road	A-5, A-6, BP-2, BP-3		1,826	2C	A/B	4			52		1,882	3.07%	2C	A/B	69			49		1,944		2C	A/B						1,826		2C	A/B						1,826		2C	A/B						1,826		2C	A/B
White Rock Road	between Scott Road (south) and Scott Road (north)	A-5, A-6, BP-2, BP-3		10,031	2C	F	4			52		10,087	0.56%	2C	F	69			49		10,149		2C	F						10,031		2C	F						10,031		2C	F						10,031		2C	F
Scott Road (north)	north of White Rock Road	A-5, A-6, BP-2, BP-3		6,982	2C	D		8	2			6,992	0.14%	2C	D		45	6			7,033		2C	D						6,982		2C	D						6,982		2C	D						6,982		2C	D
US50	Hazel Avenue to Folsom Boulevard	O-5, O-6	W-5A, W-5B, W-5C, W-5D, W-5E	#####	4FA	F		8	2		96	129,027	0.08%	4FA	F		45	6		264	129,236	0.24%	4FA	F		3	3		168	129,095	0.13%	4FA	F		42	4		168	129,135	0.17%	4FA	F		3	3		288	129,215	0.23%	4FA	F
US50	Folsom Boulevard to Prairie City Road	O-5, O-6	W-6A, W-6B, W-6C	#####	4F	F		8	2			109,284	0.01%	4F	F		45	6			109,325	0.05%	4F	F		3	3			109,280	0.01%	4F	F		42	4			109,320	0.04%	4F	F		3	3		12	109,292	0.02%	4F	F
US50	Prairie City Road to East Bidwell Street	O-5, O-6	W-6A, W-6B, W-6C	79,251	4F	E		8	2			79,261	0.01%	4F	E		45	6			79,302	0.06%	4F	E		3	3			79,257	0.01%	4F	E		42	4			79,297	0.06%	4F	E		3	3		12	79,269	0.02%	4F	E
US50	East Bidwell St to County Line		W-6A, W-6B, W-6C, W-6D, W-6E	90,399	4F	F					96	90,495	0.11%	4F	F					20	90,419	0.02%	4F	F					12	90,411	0.01%	4F	F					12	90,411	0.01%	4F	F					24	90,423	0.03%	4F	F
Regional Access Routes																																																			
Hammonton-Smartville (H-S) Road	north of N. Beale Road	A-1, A-2		9,982	2C	F						9,982		2C	F						9,982		2C	F						9,982		2C	F						9,982		2C	F						9,982		2C	F
N Beale Road	south of H-S Road	A-1, A-2		30,690	4AU	F						30,690		4AU	F						30,690		4AU	F						30,690		4AU	F						30,690		4AU	F						30,690		4AU	F
Feather River Blvd. Ramp	south of N. Beale Street	A-1, A-2																																																	
Highway 70	Yuba County, east of Feather River Boulevard interchange	A-1, A-2		71,426	4AMD	F						71,426		4AMD	F						71,426		4AMD	F						71,426		4AMD	F						71,426		4AMD	F						71,426		4AMD	F
Highway 65	Roseville, northeast of Route 80	A-1, A-2		#####	4F	F						126,307		4F	F						126,307		4F	F						126,307		4F	F						126,307		4F	F						126,307		4F	F
Highway 65	Lincoln, northeast of 7th Street	A-1, A-2		27,970	2A	F						27,970		2A	F						27,970		2A	F						27,970		2A	F						27,970		2A	F						27,970		2A	F
Highway 65	Wheatland, northeast of Evergreen Drive	A-1, A-2		29,323	2A	F						29,323		2A	F						29,323		2A	F						29,323		2A	F						29,323		2A	F						29,323		2A	F
Interstate 80	Roseville, northeast of Route 65	A-1, A-2, O-1, O-2		#####	4FA	F						141,283		4FA	F						141,283		4FA	F						141,283		4FA	F						141,283		4FA	F			2		4	141,289	0.00%	4FA	F
Interstate 80	Rocklin, south of Sierra College Boulevard	A-1, A-2, O-1, O-2		#####	4FA	F						116,924		4FA	F						116,924		4FA	F						116,924		4FA	F						116,924		4FA	F						116,924		4FA	F

Table 3.9-83
2012 Daily Project Impacts Alternatives 1 through 5

Roadway	Location	ROUTE DESIGNATIONS Materials/ Equip. Routes	Worker Routes	No Action/No Projec			Alternative 1								Alternative 2							
				ADT	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	New Aggregate Trips	New Offsite	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS
Folsom Boulevard	Natoma Street to Blue Ravine Road		W-3A, W-5A, W-6A, W-3B, W-5B, W-6B, W-3C, W-5C, W-6C, W-3D, W-5D, W-3E, W-	42,560	4AD	F					108	42,668	0.25%	4AD	F					180	42,740	0.42%	4AD	F
Folsom Boulevard	Leidesdorff Street to Greenback Lane		W-3A, W-5A, W-6A, W-3B, W-5B, W-6B, W-3C, W-5C, W-6C	36,704	4AD	E						36,704		4AD	E						36,704		4AD	E
Folsom-Auburn Road	Oak Hill Drive to Folsom Dam Road	A-4, O-4, BP-1	W-1C, 2C, 3C, 4C, 5C, 6C, 7C, 1D,2D, 2E, W-3A, 5A, 6A, 3B, 5B, 6B,1E	45,374	2A	F					24	45,398	0.05%	2A	F					40	45,414	0.09%	2A	F
Folsom-Auburn Road	Folsom Dam Road to Oak Avenue		W-3A, 5A, 6A, 7A, 3B, 4B, 5B, 6B, 7B, 1E, 2E, 5C	24,096	4AU	D						24,096		4AU	D						24,096		4AU	D
Auburn-Folsom (A-F) Road	Douglas Boulevard to Eureka Road	A-2,A-3,A-4, O-2, O-3, O-4, BP-1	W-3A, 5A, 6A, 7A, 1B, 2B, 3B, 4B, 5B, 6B, 7B, 1C, 2C, 1D, 2D,	38,618	4AU	F					24	38,642	0.06%	4AU	F					40	38,658	0.10%	4AU	F
Auburn-Folsom (A-F) Road	Eureka Road to Oak Hill Drive	A-2, A-3, O-2, O-3, BP-1	W-3A, 5A, 6A, 7A, 1B, 2B, 3B, 4B, 5B, 6B, 7B, 1C, 2C, 1D, 2D,	34,341	2A	F					24	34,365	0.07%	2A	F					40	34,381	0.12%	2A	F
Sierra College Boulevard	north of Douglas Boulevard	A-1, A-2, O-1, O-2	W-2A, W-2B, W-2C, W-2D, W-2E	28,471	4AD	D					12	28,483	0.04%	4AD	D					20	28,491	0.07%	4AD	D
Eureka Road	east of N. Sunrise Avenue	A-3, A-4, O-3, O-4, BP-1		43,807	6AD	D						43,807		6AD	D						43,807		6AD	D
Douglas Boulevard	east of A-F Road	A-1,O-1	W-1A, W-2A, W-3A, W-4A, W-5A, W-6A, W-	14,846	2A	D						14,846		2A	D						14,846		2A	D
Douglas Boulevard	Barton Road to A-F Road	A-1, A-2, A-3, A-4, O-1, O-2, O-3, O-4, BP-1	W-1A, W-2A, W-4A, W-1B, W-2B, W-4B, W-1C, W-2C, W-1D, W-2D, W-1E, W-2E	45,261	4AD	F					24	45,285	0.05%	4AD	F					40	45,301	0.09%	4AD	F
Douglas Boulevard	Barton to Sierra Colleg Blvd			52,344	4AD	F						52,344		4AD	F								4AD	F
Blue Ravine Road	Oak Avenue Parkway to Green Valley Road/East Natoma Street	A-5, A-6,O-5, O-6, BP-2, BP3	W-6D, W-6E	21,956	4AD	D	5	2	2		12	21,977	0.10%	4AD	D	21	21	6	1	12	22,017	0.28%	4AD	D
East Natoma St	Cimmaron Circle to Folsom Dam Road		W-1D, 3D, 4D, 5D, 1E, 2E, 3E, 4E, 5E	18,691	4AU	D					216	18,907	1.16%	4AU	D					360	19,051	1.93%	4AU	D
East Natoma St	Folsom Dam Road to Green Valley Road	A-5, A-6,O-5, O-6, BP-2, BP3	W-7A, 7B, 7C, 1D,2D,3D,4D,5D,6D,7	30,513	4AU	F					244	30,757	0.80%	4AU	F	21	21	6	1	404	30,966	1.48%	4AU	F
Green Valley Road	East Natoma Street to Sophia Parkway	A-6, O-6	W-1E, W-2E, W-3E, W-4E, W-5E, W-6E	36,028	4AU	F						36,028		4AU	F						36,028		4AU	F
Greenback Lane	Hazel Avenue to Madison Avenue		W-4B, W-4C, W-4D, W-4E	27,135	4AMD	C					96	27,231	0.35%	4AMD	C					160	27,295	0.59%	4AMD	C
East Bidwell Street	Clarksville Road to Iron Point Road	A-5, A-6, O-5, O-6, BP-2, BP-3	W-6D, W-6E	44,247	4AD	F	2	2		18	8	44,277	0.07%	4AD	F	21	2		18	12	44,300	0.12%	4AD	F
Oak Avenue Parkway	Blue Ravine Road to East Bidwell Street		W-6D, W-6E	24,996	6AD	C					8	25,004	0.03%	6AD	C					12	25,008	0.05%	6AD	C
Scott Road (south)	south of White Rock Road	A-5, A-6, BP-2, BP-3		1,863	2C	A/B	5					1,868	0.27%	2C	A/B	21			1		1,885		2C	A/B
White Rock Road	between Scott Road (south) and Scott Road (north)	A-5, A-6, BP-2, BP-3		10,232	2C	F	5					10,237	0.05%	2C	F	21			1		10,254		2C	F
Scott Road (north)	north of White Rock Road	A-5, A-6, BP-2, BP-3		7,122	2C	D		2	2			7,126	0.06%	2C	D		21	6			7,149		2C	D
US50	Hazel Avenue to Folsom Boulevard	O-5, O-6	W-5A, W-5B, W-5C, W-5D, W-5E	#####	4FA	F		2	2		96	131,600	0.08%	4FA	F		21	6		160	131,687	0.14%	4FA	F
US50	Folsom Boulevard to Prairie City Road	O-5, O-6	W-6A, W-6B, W-6C	#####	4F	F		2	2			111,464	0.00%	4F	F		21	6			111,487	0.02%	4F	F
US50	Prairie City Road to East Bidwell Street	O-5, O-6	W-6A, W-6B, W-6C	80,837	4F	F		2	2			80,841	0.00%	4F	F		21	6			80,864	0.03%	4F	F
US50	East Bidwell St to County Line		W-6A, W-6B, W-6C, W-6D, W-6E	92,207	4F	F					96	92,303	0.10%	4F	F					12	92,219	0.01%	4F	F
Regional Access Routes																								
Hammonton-Smartville (H-S) Road	north of N. Beale Road	A-1, A-2		10,181	2C	F						10,181		2C	F						10,181		2C	F
N Beale Road	south of H-S Road	A-1, A-2		31,304	4AU	F						31,304		4AU	F						31,304		4AU	F
Feather River Blvd. Ramp	south of N. Beale Street	A-1, A-2																						
Highway 70	Yuba County, east of Feather River Boulevard interchange	A-1, A-2		75,712	4AMD	F						75,712		4AMD	F						75,712		4AMD	F
Highway 65	Roseville, northeast of Route 80	A-1, A-2		#####	4F	F						133,886		4F	F						133,886		4F	F
Highway 65	Lincoln, northeast of 7th Street	A-1, A-2		29,649	2A	F						29,649		2A	F						29,649		2A	F
Highway 65	Wheatland, northeast of Evergreen Drive	A-1, A-2		31,083	2A	F						31,083		2A	F						31,083		2A	F
Interstate 80	Roseville, northeast of Route 65	A-1, A-2, O-1, O-2		#####	4FA	F						144,109		4FA	F						144,109		4FA	F
Interstate 80	Rocklin, south of Sierra College Boulevard	A-1, A-2, O-1, O-2		#####	4FA	F						119,263		4FA	F						119,263		4FA	F

Roadway	Location	2012 Alternative 3									2012 Alternative 4									2012 Alternative 5								
		New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS
Folsom Boulevard	Natoma Street to Blue Ravine Road					180	42,740	0.42%	4AD	F					180	42,740	0.42%	4AD	F					460	43,020	1.08%	4AD	F
Folsom Boulevard	Leidesdorff Street to Greenback Lane						36,704		4AD	E						36,704		4AD	E					156	36,860	0.43%	4AD	E
Folsom-Auburn Road	Oak Hill Drive to Folsom Dam Road					40	45,414	0.09%	2A	F					40	45,414	0.09%	2A	F	16	4	2		348	45,744	0.82%	2A	F
Folsom-Auburn Road	Folsom Dam Road to Oak Avenue						24,096		4AU	D						24,096		4AU	D					180	24,276	0.75%	4AU	D
Auburn-Folsom (A-F) Road	Douglas Boulevard to Eureka Road					40	38,658	0.10%	4AU	F					40	38,658	0.10%	4AU	F	16	4	2		172	38,812	0.50%	4AU	F
Auburn-Folsom (A-F) Road	Eureka Road to Oak Hill Drive					40	34,381	0.12%	2A	F					40	34,381	0.12%	2A	F					172	34,513	0.50%	2A	F
Sierra College Boulevard	north of Douglas Boulevard					20	28,491	0.07%	4AD	D					20	28,491	0.07%	4AD	D					48	28,519	0.17%	4AD	D
Eureka Road	east of N. Sunrise Avenue						43,807		6AD	D						43,807		6AD	D						43,807		6AD	D
Douglas Boulevard	east of A-F Road						14,846		2A	D						14,846		2A	D						14,846		2A	D
Douglas Boulevard	Barton Road to A-F Road					40	45,301	0.09%	4AD	F					40	45,301	0.09%	4AD	F	16	4	2		128	45,411	0.33%	4AD	F
Douglas Boulevard	Barton to Sierra Colleg Blvd						52,344		4AD	F						52,344		4AD	F						52,344		4AD	F
Blue Ravine Road	Oak Avenue Parkway to Green Valley Road/East Natoma Street	3	3	6	3	12	21,983	0.12%	4AD	D	10	6	6		12	21,990	0.15%	4AD	D	12	6	8		20	22,002	0.21%	4AD	D
East Natoma St	Cimmaron Circle to Folsom Dam Road					360	19,051	1.93%	4AU	D					360	19,051	1.93%	4AU	D					612	19,303	3.27%	4AU	D
East Natoma St	Folsom Dam Road to Green Valley Road	3	3	6	3	404	30,932	1.37%	4AU	F	10	6	6		404	30,939	1.40%	4AU	F	12	6	8		688	31,227	2.34%	4AU	F
Green Valley Road	East Natoma Street to Sophia Parkway						36,028		4AU	F						36,028		4AU	F					96	36,124	0.27%	4AU	F
Greenback Lane	Hazel Avenue to Madison Avenue					160	27,295	0.59%	4AMD	C					160	27,295	0.59%	4AMD	C					400	27,535	1.47%	4AMD	C
East Bidwell Street	Clarksville Road to Iron Point Road	3	6	3	30	12	44,301	0.12%	4AD	F	6	6		44	12	44,315	0.15%	4AD	F	6	8		52	20	44,333	0.19%	4AD	F
Oak Avenue Parkway	Blue Ravine Road to East Bidwell Street					12	25,008	0.05%	6AD	C					12	25,008	0.05%	6AD	C					20	25,016	0.08%	6AD	C
Scott Road (south)	south of White Rock Road						1,863		2C	A/B						1,863		2C	A/B						1,863		2C	A/B
White Rock Road	between Scott Road (south) and Scott Road (north)						10,232		2C	F						10,232		2C	F						10,232		2C	F
Scott Road (north)	north of White Rock Road						7,122		2C	D						7,122		2C	D						7,122		2C	D
US50	Hazel Avenue to Folsom Boulevard	3	6		160	131,669	0.13%	4FA	F		6	6		160	131,672	0.13%	4FA	F		6	8		400	131,914	0.31%	4FA	F
US50	Folsom Boulevard to Prairie City Road	3	6			111,469	0.01%	4F	F		6	6			111,472	0.01%	4F	F		6	8		12	111,486	0.02%	4F	F
US50	Prairie City Road to East Bidwell Street	3	6			80,846	0.01%	4F	F		6	6			80,849	0.01%	4F	F		6	8		12	80,863	0.03%	4F	F
US50	East Bidwell St to County Line					12	92,219	0.01%	4F	F					12	92,219	0.01%	4F	F					32	92,239	0.03%	4F	F
Regional Access Routes																												
Hammonton-Smartville (H-S) Road	north of N. Beale Road						10,181		2C	F						10,181		2C	F						10,181		2C	F
N Beale Road	south of H-S Road						31,304		4AU	F						31,304		4AU	F						31,304		4AU	F
Feather River Blvd. Ramp	south of N. Beale Street																											
Highway 70	Yuba County, east of Feather River Boulevard interchange						75,712		4AMD	F						75,712		4AMD	F						75,712		4AMD	F
Highway 65	Roseville, northeast of Route 80						133,886		4F	F						133,886		4F	F						133,886		4F	F
Highway 65	Lincoln, northeast of 7th Street						29,649		2A	F						29,649		2A	F						29,649		2A	F
Highway 65	Wheatland, northeast of Evergreen Drive						31,083		2A	F						31,083		2A	F						31,083		2A	F
Interstate 80	Roseville, northeast of Route 65						144,109		4FA	F						144,109		4FA	F						144,109		4FA	F
Interstate 80	Rocklin, south of Sierra College Boulevard						119,263		4FA	F						119,263		4FA	F						119,263		4FA	F

Table 3.9-84
2013 Daily Project Impacts Alternatives 1 through 5

Roadway	Location	ROUTE DESIGNATIONS Materials/ Equip. Routes	Worker Routes	No Action/No Project			Alternative 1									Alternative 2									Alternative 3									Alternative 4									Alternative 5								
				ADT	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS
Folsom Boulevard	Natoma Street to Blue Ravine Road		W-3A, W-5A, W-6A, W-3B, W-5B, W-6B, W-3C, W-5C, W-6C, W-3D, W-5D, W-3E, W-5E	43,412	4AD	F					72	43,484	0.17%	4AD	F					284	43,696	0.65%	4AD	F					180	43,592	0.41%	4AD	F					344	43,756	0.79%	4AD	F					388	43,800	0.89%	4AD	F
Folsom Boulevard	Leidesdorff Street to Greenback Lane		W-3A, W-5A, W-6A, W-3B, W-5B, W-6B, W-3C, W-5C, W-6C	37,439	4AD	F						37,439		4AD	F					104	37,543	0.28%	4AD	F						37,439		4AD	F					164	37,603	0.44%	4AD	F					164	37,603	0.44%	4AD	F
Folsom-Auburn Road	Oak Hill Drive to Folsom Dam Road	A-4, O-4, BP-1	W-1C, 2C, 3C, 4C, 5C, 6C, 7C, 1D,2D, 2E, W-3A, 5A, 6A, 3B, 5B, 6B,1E	46,282	2A	F					16	46,298	0.03%	2A	F					144	46,426	0.31%	2A	F					40	46,322	0.09%	2A	F					204	46,486	0.44%	2A	F					212	46,494	0.46%	2A	F
Folsom-Auburn Road	Folsom Dam Road to Oak Avenue		W-3A, 5A, 6A, 7A, 3B, 4B, 5B, 6B, 7B, 1E, 2E, 5C	24,578	4AU	D						24,578		4AU	D					160	24,738	0.65%	4AU	D						24,578		4AU	D					220	24,798	0.90%	4AU	D					232	24,810	0.94%	4AU	D
Auburn-Folsom (A-F) Road	Douglas Boulevard to Eureka Road	A-2,A-3,A-4, O-2, O-3, O-4, BP-1	W-3A, 5A, 6A, 7A, 1B, 2B, 3B, 4B, 5B, 6B, 7B, 1C, 2C, 1D, 2D, 1E, 2E	39,391	4AU	F					16	39,407	0.04%	4AU	F	1	2	2		216	39,612	0.56%	4AU	F					40	39,431	0.10%	4AU	F			2		280	39,673	0.72%	4AU	F	5	2	2		288	39,688	0.75%	4AU	F
Auburn-Folsom (A-F) Road	Eureka Road to Oak Hill Drive	A-2, A-3, O-2, O-3, BP-1	W-3A, 5A, 6A, 7A, 1B, 2B, 3B, 4B, 5B, 6B, 7B, 1C, 2C, 1D, 2D, 1E, 2E	35,028	2A	F					16	35,044	0.05%	2A	F	1	2	2		216	35,249	0.63%	2A	F					40	35,068	0.11%	2A	F			2		280	35,310	0.81%	2A	F	5	2	2		288	35,325	0.85%	2A	F
Sierra College Boulevard	north of Douglas Boulevard	A-1, A-2, O-1, O-2	W-2A, W-2B, W-2C, W-2D, W-2E	29,041	4AD	D					8	29,049	0.03%	4AD	D	4	8	10		32	29,095	0.19%	4AD	D					20	29,061	0.07%	4AD	D		6	10		40	29,097	0.19%	4AD	D	41	14	10		44	29,150	0.38%	4AD	D
Eureka Road	east of N. Sunrise Avenue	A-3, A-4, O-3, O-4, BP-1		44,684	6AD	D						44,684		6AD	D						44,684		6AD	D						44,684		6AD	D						44,684		6AD	D						44,684		6AD	D
Douglas Boulevard	east of A-F Road	A-1,O-1	W-1A, W-2A, W-3A, W-4A, W-5A, W-6A, W-7A	15,143	2A	D						15,143		2A	D	3	6	8		92	15,252	0.72%	2A	D						15,143		2A	D		6	8		220	15,377	1.55%	2A	D	36	12	8		220	15,419	1.82%	2A	D
Douglas Boulevard	Barton Road to A-F Road	A-1, A-2, A-3, A-4, O-1, O-2, O-3, O-4, BP-1	W-1A, W-2A, W-4A, W-1B, W-2B, W-4B, W-1C, W-2C, W-1D, W-2D, W-1E, W-2E	46,167	4AD	F					16	46,183	0.03%	4AD	F	4	8	10		148	46,337	0.37%	4AD	F					40	46,207	0.09%	4AD	F		6	10		212	46,395	0.49%	4AD	F	41	14	10		220	46,452	0.62%	4AD	F
Douglas Boulevard	Barton to Sierra Colleg Blvd.			53,391	4AD	F						53,391		4AD	F						53,391		4AD	F						53,391		4AD	F								4AD	F						53,391		4AD	F
Blue Ravine Road	Oak Avenue Parkway to Green Valley Road/East Natoma Street	A-5, A-6,O-5, O-6, BP-2, BP3	W-6D, W-6E	22,396	4AD	D		1	1	11	4	22,413	0.08%	4AD	D	19	22	3	5	12	22,457	0.27%	4AD	D	1	1	4	1	12	22,415	0.08%	4AD	D	5	7	3	4	12	22,427	0.14%	4AD	D	6	7	3	4	16	22,432	0.16%	4AD	D
East Natoma St	Cimmaron Circle to Folsom Dam Road		W-1D, 3D, 4D, 5D, 1E, 2E, 3E, 4E, 5E	19,065	4AU	D					144	19,209	0.76%	4AU	D					360	19,425	1.89%	4AU	D					360	19,425	1.89%	4AU	D					360	19,425	1.89%	4AU	D					452	19,517	2.37%	4AU	D
East Natoma St	Folsom Dam Road to Green Valley Road	A-5, A-6,O-5, O-6, BP-2, BP3	W-7A, 7B, 7C, 1D,2D,3D,4D,5D,6D,7D, 1E, 2E, 3E, 4E, 5E, 6E	31,124	4AU	F		1	1	11	160	31,297	0.56%	4AU	F	19	22	3	5	412	31,585	1.48%	4AU	F	1	1	4	1	404	31,535	1.32%	4AU	F	5	7	3	4	416	31,559	1.40%	4AU	F	6	7	3	4	512	31,656	1.71%	4AU	F
Green Valley Road	East Natoma Street to Sophia Parkway	A-6, O-6	W-1E, W-2E, W-3E, W-4E, W-5E, W-6E	36,749	4AU	F						36,749		4AU	F						36,749		4AU	F						36,749		4AU	F						36,749		4AU	F						36,749		4AU	F
Greenback Lane	Hazel Avenue to Madison Avenue		W-4B, W-4C, W-4D, W-4E	27,678	4AMD	C					64	27,742	0.23%	4AMD	C					208	27,886	0.75%	4AMD	C					160	27,838	0.58%	4AMD	C					208	27,886	0.75%	4AMD	C					248	27,926	0.90%	4AMD	C
East Bidwell Street	Clarksville Road to Iron Point Road	A-5, A-6, O-5, O-6, BP-2, BP-3	W-6D, W-6E	45,132	4AD	F	1	1	11	26	4	45,175	0.10%	4AD	F	22	1	11	26	12	45,204	0.16%	4AD	F	1	4	1	14	12	45,164	0.07%	4AD	F	7	3	4	38	12	45,196	0.14%	4AD	F	7	3	4	40	16	45,202	0.16%	4AD	F
Oak Avenue Parkway	Blue Ravine Road to East Bidwell Street		W-6D, W-6E	25,496	6AD	C					4	25,500	0.02%	6AD	C					12	25,508	0.05%	6AD	C					12	25,508	0.05%	6AD	C					12	25,508	0.05%	6AD	C					16	25,512	0.06%	6AD	C
Scott Road (south)	south of White Rock Road	A-5, A-6, BP-2, BP-3		1,901	2C	A/B				11		1,912	0.58%	2C	A/B	19			5		1,925		2C	A/B						1,901		2C	A/B						1,901		2C	A/B						1,901		2C	A/B
White Rock Road	between Scott Road (south) and Scott Road (north)	A-5, A-6, BP-2, BP-3		10,437	2C	F				11		10,448	0.11%	2C	F	19			5		10,461		2C	F						10,437		2C	F						10,437		2C	F						10,437		2C	F
Scott Road (north)	north of White Rock Road	A-5, A-6, BP-2, BP-3		7,265	2C	D	1	1				7,267	0.03%	2C	D		22	3			7,290		2C	D						7,265		2C	D						7,265		2C	D						7,265		2C	D
US50	Hazel Avenue to Folsom Boulevard	O-5, O-6	W-5A, W-5B, W-5C, W-5D, W-5E	134,130	4FA	F	1	1			64	134,196	0.05%	4FA	F		22	3		246	134,401	0.20%	4FA	F		1	4		160	134,295	0.12%	4FA	F		7	3		292	134,432	0.23%	4FA	F		7	3		332	134,472	0.25%	4FA	F
US50	Folsom Boulevard to Prairie City Road	O-5, O-6	W-6A, W-6B, W-6C	113,690	4F	F	1	1				113,692	0.00%	4F	F		22	3		8	113,723	0.03%	4F	F		1	4			113,695	0.00%	4F	F		7	3		12	113,712	0.02%	4F	F		7	3		12	113,712	0.02%	4F	F
US50	Prairie City Road to East Bidwell Street	O-5, O-6	W-6A, W-6B, W-6C	82,454	4F	F	1	1				82,456	0.00%	4F	F		22	3		8	82,487	0.04%	4F	F		1	4			82,459	0.01%	4F	F		7	3		12	82,476	0.03%	4F	F		7	3		12	82,476	0.03%	4F	F
US50	East Bidwell St to County Line		W-6A, W-6B, W-6C, W-6D, W-6E	94,052	4F	F					4	94,056	0.00%	4F	F					20	94,072	0.02%	4F	F					12	94,064	0.01%	4F	F					24	94,076	0.03%	4F	F					28	94,080	0.03%	4F	F
Regional Access Routes																																																			
Hammonton-Smartville (H-S) Road	north of N. Beale Road	A-1, A-2		10,385	2C	F						10,385		2C	F				8		10,393	0.08%	2C	F						10,385		2C	F						10,385		2C	F				82		10,467	0.79%	2C	
N Beale Road	south of H-S Road	A-1, A-2		31,930	4AU	F						31,930		4AU	F				8		31,938	0.03%	4AU	F						31,930		4AU	F						31,930		4AU	F				82		32,012	0.26%	4AU	
Feather River Blvd. Ramp	south of N. Beale Street	A-1, A-2																	8																												82					
Highway 70	Yuba County, east of Feather River Boulevard interchange	A-1, A-2		80,255	4AMD	F						80,255		4AMD	F				8		80,263	0.01%	4AMD	F						80,255		4AMD	F						80,255		4AMD	F				82		80,337	0.10%	4AMD	
Highway 65	Roseville, northeast of Route 80	A-1, A-2		141,920	4F	F						141,920		4F	F				8		141,928	0.01%	4F	F						141,920		4F	F						141,920		4F	F				82		142,002	0.06%	4F	
Highway 65	Lincoln, northeast of 7th Street	A-1, A-2		31,428	2A	F						31,428		2A	F				8		31,436	0.03%	2A	F						31,428		2A	F						31,428		2A	F				82		31,510	0.26%	2A	
Highway 65	Wheatland, northeast of Evergreen Drive	A-1, A-2		32,948	2A	F						32,948		2A	F				8		32,956	0.02%	2A	F						32,948		2A	F						32,948		2A	F				82		33,030	0.25%	2A	
Interstate 80	Roseville, northeast of Route 65	A-1, A-2, O-1, O-2		146,992	4FA	F						146,992		4FA	F	8	10		44		147,054	0.04%	4FA	F						146,992		4FA	F	6	10		32		147,040	0.03%	4FA	F	14	10		130		147,146	0.10%	4FA	F
Interstate 80	Rocklin, south of Sierra College Boulevard	A-1, A-2, O-1, O-2		121,649	4FA	F						121,649		4FA	F	8	10				121,667	0.01%	4FA	F						121,649		4FA	F	6					121,655	0.00%	4FA	F						121,649		4FA	F

Table 3.9-85
2014 Daily Project Impacts Alternatives 1 through 5

Roadway	Location	ROUTE DESIGNATIONS Materials/ Equip. Routes	Worker Routes	No Action/No Project			Alternative 1									Alternative 2									Alternative 3									Alternative 4									Alternative 5								
				ADT	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS	New Aggregate Trips	New Offsite Trips	New Equipment Trips	New BP Trips	New Worker Trips	New ADT	% increase	code	LOS
Folsom Boulevard	Natoma Street to Blue Ravine Road		W-3A, W-5A, W-6A, W-3B, W-5B, W-6B, W-3C, W-5C, W-6C, W-3D, W-5D, W-3E, W-5E	44,715	4AD	F						44,715		4AD	F						44,715		4AD	F						44,715		4AD	F						44,715		4AD	F					236	44,951	0.53%	4AD	F
Folsom Boulevard	Leidesdorff Street to Greenback Lane		W-3A, W-5A, W-6A, W-3B, W-5B, W-6B, W-3C, W-5C, W-6C	38,563	4AD	F						38,563		4AD	F						38,563		4AD	F						38,563		4AD	F						38,563		4AD	F					164	38,727	0.43%	4AD	F
Folsom-Auburn Road	Oak Hill Drive to Folsom Dam Road	A-4, O-4, BP-1	W-1C, 2C, 3C, 4C, 5C, 6C, 7C, 1D,2D, 2E, W-3A, 5A, 6A, 3B, 5B,	47,671	2A	F						47,671		2A	F						47,671		2A	F						47,671		2A	F						47,671		2A	F					180	47,851	0.38%	2A	F
Folsom-Auburn Road	Folsom Dam Road to Oak Avenue		W-3A, 5A, 6A, 7A, 3B, 4B, 5B, 6B, 7B, 1E, 2E,	25,316	4AU	D						25,316		4AU	D						25,316		4AU	D						25,316		4AU	D						25,316		4AU	D					224	25,540	0.88%	4AU	D
Auburn-Folsom (A-F) Road	Douglas Boulevard to Eureka Road	A-2,A-3,A-4, O-2, O-3, O-4, BP-1	W-3A, 5A, 6A, 7A, 1B, 2B, 3B, 4B, 5B, 6B, 7B, 1C, 2C, 1D, 2D, 1E, 2E	40,573	4AU	F						40,573		4AU	F						40,573		4AU	F						40,573		4AU	F						40,573		4AU	F	41	14	10		256	40,894	0.79%	4AU	F
Auburn-Folsom (A-F) Road		A-2, A-3, O-2, O-3, BP-1	W-3A, 5A, 6A, 7A, 1B, 2B, 3B, 4B, 5B, 6B, 7B, 1C, 2C, 1D, 2D, 1E, 2E	36,079	2A	F						36,079		2A	F						36,079		2A	F						36,079		2A	F						36,079		2A	F	41	12	8		256	36,396	0.88%	2A	F
Sierra College Boulevard	north of Douglas Boulevard	A-1, A-2, O-1, O-2	W-2A, W-2B, W-2C, W-2D, W-2E	29,913	4AD	D						29,913		4AD	D						29,913		4AD	D						29,913		4AD	D						29,913		4AD	D	41	14	10		28	30,006	0.31%	4AD	D
Eureka Road	east of N. Sunrise Avenue	A-3, A-4, O-3, O-4, BP-1		46,025	6AD	D						46,025		6AD	D						46,025		6AD	D						46,025		6AD	D						46,025		6AD	D						46,025		6AD	D
Douglas Boulevard	east of A-F Road	A-1,O-1	W-1A, W-2A, W-3A, W-4A, W-5A, W-6A, W-7A	15,598	2A	D						15,598		2A	D						15,598		2A	D						15,598		2A	D						15,598		2A	D	36	12	8		220	15,874	1.77%	2A	D
Douglas Boulevard	Barton Road to A-F Road	A-1, A-2, A-3, A-4, O-1, O-2, O-3, O-4, BP-1	W-1A, W-2A, W-4A, W-1B, W-2B, W-4B, W-1C, W-2C, W-1D, W-2D, W-1E, W-2E	47,553	4AD	F						47,553		4AD	F						47,553		4AD	F						47,553		4AD	F						47,553		4AD	F	41	14	10		188	47,806	0.53%	4AD	F
Douglas Boulevard	Barton to Sierra Colleg Blvd.			54,993	4AD	F						54,993		4AD	F						54,993		4AD	F						54,993		4AD	F						54,993		4AD	F						54,993		4AD	F
Blue Ravine Road	Oak Avenue Parkway to Green Valley Road/East Natoma Street	A-5, A-6,O-5, O-6, BP-2, BP3	W-6D, W-6E	23,068	4AD	D						23,068		4AD	D						23,068		4AD	D						23,068		4AD	D						23,068		4AD	D		10	2	3	4	23,087	0.08%	4AD	D
East Natoma St	Cimmaron Circle to Folsom Dam Road		W-1D, 3D, 4D, 5D, 1E, 2E, 3E, 4E, 5E	19,637	4AU	D						19,637		4AU	D						19,637		4AU	D						19,637		4AU	D						19,637		4AU	D					144	19,781	0.73%	4AU	D
East Natoma St	Folsom Dam Road to Green Valley Road	A-5, A-6,O-5, O-6, BP-2, BP3	W-7A, 7B, 7C, 1D,2D,3D,4D,5D,6D,7D, 1E, 2E, 3E, 4E, 5E, 6E	32,058	4AU	F						32,058		4AU	F						32,058		4AU	F						32,058		4AU	F						32,058		4AU	F		10	2	3	172	32,245	0.58%	4AU	F
Green Valley Road	East Natoma Street to Sophia Parkway	A-6, O-6	W-1E, W-2E, W-3E, W-4E, W-5E, W-6E	37,852	4AU	F						37,852		4AU	F						37,852		4AU	F						37,852		4AU	F						37,852		4AU	F						37,852		4AU	F
Greenback Lane	Hazel Avenue to Madison Avenue		W-4B, W-4C, W-4D, W-4E	28,509	4AMD	C						28,509		4AMD	C						28,509		4AMD	C						28,509		4AMD	C						28,509		4AMD	C					196	28,705	0.69%	4AMD	C
East Bidwell Street	Clarksville Road to Iron Point Road	A-5, A-6, O-5, O-6, BP-2, BP-3	W-6D, W-6E	46,486	4AD	F						46,486		4AD	F						46,486		4AD	F						46,486		4AD	F						46,486		4AD	F	10	2	3	30	4	46,535	0.11%	4AD	F
Oak Avenue Parkway	Blue Ravine Road to East Bidwell Street		W-6D, W-6E	26,261	6AD	C						26,261		6AD	C						26,261		6AD	C						26,261		6AD	C						26,261		6AD	C					4	26,265	0.02%	6AD	C
Scott Road (south)	south of White Rock Road	A-5, A-6, BP-2, BP-3		1,959	2C	A/B						1,959		2C	A/B						1,959		2C	A/B						1,959		2C	A/B						1,959		2C	A/B						1,959		2C	A/B
White Rock Road	between Scott Road (south) and Scott Road (north)	A-5, A-6, BP-2, BP-3		10,751	2C	F						10,751		2C	F						10,751		2C	F						10,751		2C	F						10,751		2C	F						10,751		2C	F
Scott Road (north)	north of White Rock	A-5, A-6, BP-2, BP-3		7,483	2C	D						7,483		2C	D						7,483		2C	D						7,483		2C	D						7,483		2C	D						7,483		2C	D
US50	Hazel Avenue to Folsom Boulevard	O-5, O-6	W-5A, W-5B, W-5C, W-5D, W-5E	138,154	4FA	F						138,154		4FA	F						138,154		4FA	F						138,154		4FA	F						138,154		4FA	F		10	2		196	138,362	0.15%	4FA	F
US50	Folsom Boulevard to Prairie City Road	O-5, O-6	W-6A, W-6B, W-6C	117,101	4F	F						117,101		4F	F						117,101		4F	F						117,101		4F	F						117,101		4F	F		10	2		12	117,125	0.02%	4F	F
US50	Prairie City Road to East Bidwell Street	O-5, O-6	W-6A, W-6B, W-6C	84,928	4F	F						84,928		4F	F						84,928		4F	F						84,928		4F	F						84,928		4F	F		10	2		12	84,952	0.03%	4F	F
US50	East Bidwell St to County Line		W-6A, W-6B, W-6C, W-6D, W-6E	96,874	4F	F						96,874		4F	F						96,874		4F	F						96,874		4F	F						96,874		4F	F					16	96,890	0.02%	4F	F
Regional Access Routes																																																				
Hammonton-Smartville (H-S) Road	north of N. Beale Road	A-1, A-2		10,593	2C	F						10,593		2C	F						10,593		2C	F						10,593		2C	F						10,593		2C	F					82	10,675	0.77%	2C	F
N Beale Road	south of H-S Road	A-1, A-2		32,569	4AU	F						32,569		4AU	F						32,569		4AU	F						32,569		4AU	F						32,569		4AU	F					82	32,651	0.25%	4AU	F
Feather River Blvd. Ramp	south of N. Beale Street	A-1, A-2																																																		
Highway 70	Yuba County, east of Feather River Boulevard interchange	A-1, A-2		85,071	4AMD	F						85,071		4AMD	F						85,071		4AMD	F						85,071		4AMD	F						85,071		4AMD	F					82	85,153	0.10%	4AMD	F
Highway 65	Roseville, northeast of Route 80	A-1, A-2		150,436	4F	F						150,436		4F	F						150,436		4F	F						150,436		4F	F						150,436		4F	F					82	150,518	0.05%	4F	F
Highway 65	Lincoln, northeast of 7th Street	A-1, A-2		33,314	2A	F						33,314		2A	F						33,314		2A	F						33,314		2A	F						33,314		2A	F					82	33,396	0.25%	2A	F
Highway 65	Wheatland, northeast of Evergreen Drive	A-1, A-2		34,925	2A	F						34,925		2A	F						34,925		2A	F						34,925		2A	F						34,925		2A	F					82	35,007	0.23%	2A	F
Interstate 80	Roseville, northeast of Route 65	A-1, A-2, O-1, O-2		149,932	4FA	F						149,932		4FA	F						149,932		4FA	F						149,932		4FA	F						149,932		4FA	F	14	10		130		150,086	0.10%	4FA	F
Interstate 80	Rocklin, south of Sierra College Boulevard	A-1, A-2, O-1, O-2		124,082	4FA	F						124,082		4FA	F						124,082		4FA	F						124,082		4FA	F						124,082		4FA	F	14	10		130		124,236	0.12%	4FA	F

New Aggregate trips are those trips hauling aggregate materials (fine & coarse filters, road base and asphalt)
New Offsite trips are those trips hauling offsite materials (slope u/s, toe drain, hdpe pipe, pipe filter, u/s filter, seeding, rebar)
New BP trips are those trips hauling aggregate materials (cement, fine & coarse aggregates) directly to the batch plants. This does not include trips from the batch plants to the project features
New Equipment trips are those trips hauling in equipment to each project feature staging area (staging area assumed adjacent to project feature for hauling evaluation).

Appendix G
Noise Methodology and Assumptions

Appendix G
Noise Methodology and Assumptions

This appendix describes the methodologies used to assess the potential construction and haul vehicle noise impacts. Attachment 1 presents the results of the construction noise impact analysis. The details behind results of the traffic noise modeling analysis are presented in Attachment 2.

G.1 Construction Noise Impact Assessment Methodology

As part of the construction noise impact analysis, a Best Available Control Technology (BACT) analysis of noise mitigation measures was prepared to determine noise mitigation measures and noise exposure limits. A construction noise impact analysis was conducted for construction activities by evaluating the potential for noise level increase over ambient noise levels at noise-sensitive receptors associated with the closest construction activity to the receptor. The results of the construction noise analysis were based on the type and number of pieces construction equipment and operations; the distance to the receptor location, and the effects of terrain and atmospheric absorption.

BACT was used to determine mitigation measures and construction noise limits. The BACT requirement is defined as maximum achievable noise reduction available from a noise source taking into account energy, environmental and economic impacts of a noise control measure. Inherently, this definition includes economic costs of each noise control measure evaluated. The definition of BACT does not necessarily mean that all-available noise control technology be implemented to achieve BACT. The problem with implementing all available noise control is the potential for significant cost increases for a small incremental decrease in noise. Therefore, we have defined BACT taking into consideration this potential for diminishing returns as follows:

- BACT is achieved when all reasonable noise control approaches have been applied, or
- BACT is achieved when community noise levels during construction would be substantially unchanged from the pre-construction noise levels.

The construction operations, such as concrete and rock crushing and screening operations and blasting activities, and the types of construction equipment that is expected to be used is presented in Table G-1. This table was based on information provided in the U.S. Army Corps of Engineers (Corps), *Folsom Dam Raise and Auxiliary Spillway Alternative PASS II Draft Report*, February 2006. It also presents

the L_{max} sound level and percent of time the equipment is operated at full power (usage factor) for each piece of construction equipment used. The L_{max} sound levels represent typical maximum noise that normally occurs during full power operation of the equipment. These levels typically only occur for a short duration, since the equipment is not operated at full power for an entire workday.

Table G-1
Construction Operations, Equipment Types and Their Noise Levels

Equipment types	*Usage Factor*	*Lmax @ 50'*
Scrapers	40%	81
Dozers	40%	82
Vibratory Compactors	20%	83
Haul Trucks	40%	76
Excavator	40%	81
Small Crane	16%	81
Drill Rigs	20%	84
Loaders	40%	79
Blasting	1%	94
Rock/Screening Crushing Operations	80%	94
Concrete Batch Plant	15%	83

Sources:

U.S. Army Corps, Folsom Dam Raise and Auxiliary Spillway Alternative PASSII Draft Report, February 2006.

FHWA, Roadway Construction Noise Model, January 2006.

P. Yastrow, Laku Landing Sound Level Analysis, April 1990.

Noise emissions and usage factors for each piece of equipment were obtained from literature research and the recently released FHWA Roadway Construction Noise Model[1]. Construction noise impacts were estimated based on the following parameters, assuming that construction activities would occur 18 hours per day:

- Type of equipment expected to be used;
- Quantity of equipment expected to be used;
- Maximum sound level (L_{max}) for full power operation of each type of equipment;
- Percentage of the time equipment typically operates at full power, and

[1] U.S. DOT, FHWA Roadway Construction Noise Model User's Guide, Final Report, January 2006.

- Noise attenuation from portable and temporary barriers adjacent to construction sites.

The L_{eq} noise levels were calculated for each construction activity using the following equations:

Equation 1:

$$L_{eq\ (equipment)} = L_{max} + 10 \log_{10} (UF/100\%)$$

Where:

L_{max} is the maximum sound level for each type of equipment, and

UF is the daily usage fraction of time that equipment is used at full power

The individual contributions of each piece of equipment were combined to obtain the overall maximum construction L_{max} and L_{eq} noise level at each construction activity location using:

Equation 2:

$$L_{max}/L_{eq\ (overall)} = 10 \log_{10} \sum\ 10^{(L\ max/\ Leq(equipment)\ /\ 10)}$$

The L_{max} and L_{eq} noise levels calculated at each noise-sensitive receptor were performed using the following equation:

Equation 3:

$$L_{max}/L_{eq\ (receptor)} = EL - 25 \log_{10} (d/50) - A_1 - A_2$$

Where:

EL is the estimated overall L_{max}/L_{eq} noise level at 50 feet (dBA) for each construction activity

d is the distance from the center of the construction activity site to the noise-sensitive receptor (feet)

A_1 is the site-specific excess attenuation due to terrain effects

A_2 is the excess attenuation due to atmospheric absorption

This formula results in a 7.5-dBA loss for each doubling of distance. This formula includes the effect of geometrical spreading of noise with distance as well as excess

attenuation due to soft ground conditions.[2] The distances were measured from the center of the nearest construction activity to the adjacent noise-sensitive receptor.

The change in ground elevation between noise sensitive receptors and the edge of Folsom Reservoir where much of construction activity and continuous materials and concrete processing would occur ranges from 10 to 120 feet. These changes in elevation can act as barrier or shield between noise sources and noise-sensitive receptors. The potential noise reductions due to changes in terrain were calculated using barrier insertion loss equations.[3] Noise losses associated with the change in elevations were calculated for each octave band frequency ranging from 31.5 hertz (Hz) to 16,000 Hz. According to U.S. EPA[4], the typical construction equipment noise frequency is 250 hertz. Therefore, noise reductions at 250 Hz were used to represent the noise level reductions associated with the changes in elevations. The projected noise losses due to changes in terrain ranged from 10 dBA to 20 dBA. The only noise-sensitive receptor that would not receive a benefit from changes in terrain is noise-sensitive receptor 1 (Natoma Street residences). Attachment 1 presents the results of the noise level reductions due to changes in terrain.

Excess attenuation associated with atmospheric absorption is strongly dependent on temperature, relative humidity and frequency. It should be noted that as humidity decreases, the atmospheric attenuation increases because dry air is a poor conductor of sound compared to humid air. Based on a daytime average air temperature of 68°F and 50 percent humidity sound attenuates at 1.3 dB per kilometer at 250 Hz, and based on a nighttime average temperature of 50°F and 50 percent humidity sound attenuates at 1.1 dB per kilometer at 250 Hz.[3] These atmospheric absorption rates were used in the construction noise impact analysis.

The methodology used to compare each alternative's construction noise impacts was based on the projected L_{dn} noise level at each sensitive receptor and the duration of the construction. Since there would be no major changes in number of pieces of construction equipment or processing sites between each alternative, the only change between alternatives would be the duration of construction based on the number of days of construction for each construction phase. For major construction phases that would be adjacent to noise-sensitive receptors, the construction duration, in total number of days and the projected L_{dn} noise level at each noise-sensitive receptor, was used to calculate a construction period average L_{dn} noise level for each alternative using the following equation:

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2 FHWA, Noise Fundamentals Training Document, Highway Noise Fundamentals, September 1980..

3 C.M. Harris, Handbook of Acoustic Measurements and Noise Control, 3rd Edition, 1991.

4 U.S. Environmental Protection Agency, *Noise From Construction Equipment and Operations, Building Equipment, and Home Appliances*, U.S. Environmental Protection Agency Report NTID 300.1, December 31, 1971.

Equation 4:

$$L_{dn_const} = 10\log_{10}\left(\frac{Xi}{XT}\sum_{i}^{XT}10^{(L_{dn}/10)}+10^{(L_{dn_ex}/10)}\right)$$

Where:

$L_{dn_const.}$ is the average L_{dn} noise level for the construction period

X_T is the total potential number of days of construction

X_i is the total number of days of construction for each alternative

L_{dn} is the projected day-night noise level at each noise-sensitive receptor

L_{dn_ex} is the existing day-night noise level at each noise-sensitive receptor

G.2 Rock Blasting Noise and Vibration Impact Assessment Methodology

Construction and rock blasting activities have the potential to produce noise and vibration levels that may be annoying or disturbing to humans and may cause damage to structures. The rock blasting noise impacts were addressed in the construction noise impact analysis. A blast noise level of 94 dBA at 50 feet and usage factor of 1 percent referenced in the FWHA Roadway Construction Model was used to assess rock blasting noise impacts at noise-sensitive receptors.

Vibration from construction projects is caused by general equipment operations, and is usually highest during pile driving, soil compacting, jack hammering and construction related demolition and blasting activities. Although the vibration is sometimes noticeable outdoors, it is almost exclusively an indoor problem. Although it is conceivable for ground-borne vibration from construction projects to cause building damage, the vibration from construction activities is almost never of sufficient amplitude to cause even minor cosmetic damage to buildings. The primary concern is that the vibration can be intrusive and annoying to people inside buildings.

Measurements of vibration are expressed in terms of the peak particle velocity (PPV) in the unit of inches per second (ips). The PPV, a quantity commonly used for vibration measurements, is the maximum velocity experienced by any point in a structure during a vibration event. It is an indication of the magnitude of energy

transmitted through vibration. PPV is an indicator often used in determining potential damage to buildings from stress associated with blasting and other construction activities.

Table G-2 summarizes the levels of vibration and the usual effect on people and buildings. The U.S. Department of Transportation (U.S. DOT) provides guidelines for vibration levels from construction-related activities. Vibration levels associated with blasting are site-specific and are dependent on the amount of explosive used, soil conditions between the blast site and the receptor, and the elevation where blasting would take place (specifically, the below surface elevation where bedrock would be encountered). Blasting below the surface would produce lower vibration levels at a receptor due to additional attenuation provided by distance and transmission through soil and rock. Under the proposed action, blasting procedures would be dictated by site-specific conditions as determined by the construction contractor prior to construction, through monitoring during construction. Therefore, a quantitative assessment of potential vibration impacts from blasting is not provided. Rather, blasting is discussed in the context of protective measures that would be put in place to minimize or avoid adverse vibration effects in the mitigation measures section.

Table G-2
Summary of Vibration Levels and Effects on Humans and Buildings

Peak Particle Velocity (in/sec)	***Effects on Humans***	***Effects on Buildings***
<0.005	Imperceptible	No effect on buildings
0.005 to 0.015	Barely perceptible	No effect on buildings
0.02 to 0.05	Level at which continuous vibrations begin to annoy in buildings	No effect on buildings
0.1 to 0.5	Vibrations considered unacceptable for people exposed to continuous or long-term vibration	Minimal potential for damage to weak or sensitive structures.
0.5 to 1.0	Vibrations considered bothersome by most people, however tolerable if short-term in length	Threshold at which there is a risk of architectural damage to buildings with plastered ceilings and walls. Some risk to ancient monuments and ruins.
1.0 to 2.0	Vibrations considered unpleasant by most people	U.S. Bureau of Mines data indicates that blasting vibration in this range will not harm most buildings. Most construction vibration limits are in this range.
>3.0	Vibration is unpleasant	Potential for architectural damage and possible minor structural damage.

Source: Michael Minor & Associates, Vibration Primer http://www.drnoise.com/ PDF_files/Vibration%20Primer.pdf, downloaded May 2006.

The methodology used to assess construction equipment vibration impacts was based on construction equipment vibration levels at a reference distance of 25 feet and the following equation provided in a Federal Transit Authority reference document:[5]

Equation 5: $$PPVequip = PPVref \times (\frac{25}{D})^{1.5}$$

Where:

$PPV_{(equip)}$ is the peak particle velocity in inches per second of the equipment adjusted for distance

$PPV_{(ref)}$ is the reference vibration level in inches per second at 25 feet

D is the distance from the equipment to the receiver

Table G-3 presents the vibration levels for typical construction equipment.

Table G-3
Vibration Levels for Typical Construction Equipment

Equipment		***PPV at 25 (in./sec)***
Pile Driver (impact)	upper range	1.518
	typical	0.644
Pile Driver (sonic)	upper range	0.734
	typical	0.170
Clam Shovel Drop (slurry wall)		0.202
Hydromill (slurry wall)	in soil	0.008
	in rock	0.017
Large Bulldozer		0.089
Caisson Drilling		0.089
Loaded Trucks		0.076
Jackhammer		0.035
Small Bulldozer		0.003

Source: FTA, Transit Noise and Vibration Impact Assessment, April 1995.

[5] Federal Transit Administration (FTA), *Transit Noise and Vibration Impact Assessment*, April 1995.

G.3 Transportation Noise Impact Methodology

G.3.1 Transportation Noise Impact Methodology

G.3.1.1 Local Roads Traffic Noise

Traffic noise levels were estimated for construction workers' commuting vehicles, delivery trucks and trucks hauling aggregate materials using the FHWA Traffic Noise Model, Version 2.5 (TNM2.5). As of January 15, 2005, Caltrans requires all new projects to use TNM2.5 to model potential noise impacts for highway projects. TNM2.5 was used to estimate noise levels for the existing, No-Action and action alternatives along the proposed truck haul routes. TNM2.5 is capable of modeling noise impacts from automobiles, medium trucks (2 axles), heavy trucks (3 or more axles), buses and motorcycles factoring in vehicle volume, vehicle speed, roadway configuration, distance to the noise-sensitive receptors, atmospheric absorption and ground attenuation characteristics. When predicting noise levels, TNM2.5 accounts for the effects of different pavement types, changes in roadway grades and attenuation due to rows of buildings and dense vegetation.

TNM2.5 is used to predict hourly L_{eq} noise levels for both free-flowing and interrupted-flow conditions (i.e., intersections, and traffic control devices). The model is generally considered to be accurate within +/- 3 dB. TNM2.5 is also capable of predicting L_{dn} noise levels daily traffic volume. Inputs to the TNM2.5 model when calculating L_{dn} levels include average daily traffic (ADT) volume, daytime/nighttime traffic distribution of vehicle classes (i.e., automobiles medium and heavy truck, buses and motorcycle percentages and average vehicle speed.

Existing, No-Action and Folsom DS/FDR-related ADT volumes were obtained from Section 3.9. Vehicle classification data by vehicle type was based on actual traffic data for Folsom-Auburn Road provided by the City of Folsom. These vehicle distributions were applied to all local roadway ADT volumes. The daytime/nighttime traffic distributions presented in the Bureau of Reclamation (Reclamation), *Folsom Dam Road Access Restriction, Final Environmental Impact Statement*, April 2005 (herein referred to as Folsom Dam Road FEIS) were used to represent the Folsom DS/FDR area of analysis. TNM2.5 is capable of calculating L_{dn} noise levels based on an even distribution of hourly traffic volumes over a 24-hour period. However, because the ADT volumes for the study area are distributed approximately 82 percent during the daytime and 18 percent during the nighttime, TNM2.5 was used to estimate daytime and nighttime hourly L_{eq} noise levels. These L_{eq} noise levels were then assumed to be distributed evenly throughout the each time period to calculate the L_{dn} noise level outside TNM2.5 for each noise-sensitive receptor.

Additional assumptions used in the traffic noise modeling analysis included:

- Existing and No-Action ADT volumes were converted to peak hour traffic volumes assuming that peak-hour traffic volumes are 10 percent of the ADT volumes[6].

- All Folsom DS/FDR-related new traffic, including workers and truck trips, are assumed to occur during daytime hours.

- Folsom DS/FDR-related truck ADT volumes would occur from 7:00 a.m. to 4:00 p.m. or eight hours per day. The ADT volumes were divided by 8 to obtain peak hour truck traffic volumes and added to the No-Action peak hour traffic volumes.

- Folsom DS/FDR-related construction workers ADT volumes were based on two shifts per day. The ADT volumes were divided by 4 to obtain peak hour construction worker volumes and added to the No-Action peak hour traffic volumes.

- All new truck trips are assumed to consist of heavy trucks, those with 3 axles or greater for use in the TNM2.5 model.

- Speeds were estimated using posted speed limits and guidelines in the FHWA Highway Capacity Manual on estimating speeds based on speed limits. For speed limits of 40 and 45 add 7 mph to get free-flow speed. For speed limits of 50 and 55 add 5mph to get free-flow speed.

- Equal volumes of traffic on each roadway direction were assumed except for receiver locations 1 and 4 where there were different numbers of lanes in each direction. For these roadway sections we divided the total peak hour traffic according to the ratio of lanes in each direction.

Model Calibration

TNM2.5 was calibrated based on the noise level and traffic data collected in the field in order to make any necessary adjustments to the Existing Year (2006) and peak construction year modeling results based on the results of the calibration modeling analysis. CDM used traffic and noise data for two Folsom-Auburn Road receptors presented in the Folsom Dam Road FEIS. The calibration modeling analysis was conducted for these two receptor locations since they are close to the Folsom-Auburn noise-sensitive receptor evaluated in this traffic noise impact analysis. The other noise-sensitive receptors presented in the Folsom Dam Road FEIS were located in

[6] CDM, Email Correspondence between Lisa Sherman, CDM and Darrow Mathew, Sacramento County, April 24, 2006.

downtown Folsom, and were not included in the proposed routes for the Folsom DS/FDR.

Table G-4 presents the traffic data and results of the calibration modeling analysis. It shows that TNM2.5 reasonably predicted traffic noise levels at both receptor locations. Similar to the calibration modeling conducted in the Folsom Dam Road FEIS, the predicted L_{eq} noise level was 3 dBA lower than the measured L_{eq} noise level at receptor 1, but the predicted noise level was identical to the measured noise level at receptor 2. According to the Folsom Dam Road FEIS, the difference in noise levels was attributed to the reasonably assumption that vehicle travel speeds were probably higher than the posted speed limit used in the model. Although the predicted L_{eq} noise level was higher than the measured noise level at receptor 1, it was within the accuracy of the model. Therefore, no adjustments were made to the other TNM2.5 model results.

Table G-4
Calibration Modeling Results

Receptor ID	*Receptor Description*	*Distance (feet)*	*Posted Speed (mph)*	*Observed Vehicles/hour*			*L_{eq} Levels (dBA)*	
				Autos	*Medium Trucks*	*Heavy Trucks*	*Measured*	*TNM2.5 Results*
1	Folsom-Auburn Road (Lake Pointe Apartments)	70	50	1,428	52	0	71	68
2	Folsom-Auburn (north of Oak Avenue Parkway)	70	50	2,072	24	4	69	69

Sources: USBR, Folsom Dam Road Access Restriction, Final Environmental Impact Statement, April 2005.
CDM, 2006.

Peak Year Analysis

Traffic noise modeling for the alternatives was conducted only for those construction years with the highest projected number of construction worker vehicles and truck trips, since these would be the years that would generate the highest Folsom DS/FDR-related traffic noise impacts. Based on the projected ADT volumes for each alternative, it is projected that 2009 would have the highest combined construction workers and truck ADT volumes for all alternatives, except for Alternative 5. For Alternative 5, the highest number of combined ADT volumes would occur in 2013. The No-Action alternative was modeled for both years. Table G-5 presents a summary of the ADT volumes by year for each alternative.

Table G-5 Projected Construction Employee and Truck ADT Volumes					
	Folsom DS/FDR Alternatives				
Year	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
2007	1,004	960	496	976	1,064
2008	3,805	3,270	3,252	3,615	3,451
2009	**5,393**	**5,592**	**4,275**	**5,049**	3,377
2010	4,411	4,238	2,913	3,834	3,315
2011	1,284	2,736	1,952	1,056	1,438
2012	1,051	1,816	1,594	1,636	4,206
2013	716	3,248	1,534	3,558	**4,860**
2014	0	0	0	0	3,822

Source: CDM, 2006.

Selecting Noise Receptor Locations

For this traffic noise analysis, a single reference point based on a 50-foot distance from the roadway centerline to each noise-sensitive receptor was used. This distance was selected because the distances from the roadway centerlines to the noise-sensitive receptors ranged from 40 to 70 feet, and the incremental difference in predicted noise levels at this range of distance is less than 3 dBA. This difference in noise levels is considered to be barely perceptible by humans. Therefore, the 50-foot distance was selected as a median distance and will represent a uniform evaluation of noise impacts for all nine noise-sensitive receptor locations. In addition, since this analysis is primarily compares traffic noise levels with and without the proposed action, those differences between receptors would remain constant. The most significant variable between alternatives is the projected traffic volume.

G.3.1.1.2 Regional Haul Routes Noise

The proposed regional haul routes in the Cities of Marysville, Wheatland, Lincoln, Rocklin and Roseville include Highway 70 and 65, Interstate 80 and US 50. The existing and future No-Action ADT volumes along these highways are significantly higher than those projected for the Folsom DS/FDR. The combined construction workers and haul truck ADT volumes represent less than one percent of the total ADT volume along these proposed regional haul routes. In order to project an appreciable noise level increase of 3 dBA or greater would require the Folsom DS/FDR-related traffic volumes to double the existing or No-Action traffic volumes. The projected increase in ADT volumes due to the proposed actions would generate less than 0.3 dBA increase in existing noise levels. Therefore, a detailed traffic noise modeling analysis was not conducted for the regional haul routes.

The details behind results of the traffic noise modeling analysis are presented in Attachment 2.

Attachment 1

Construction Noise Impact Analysis

Workbook Table of Contents

This construction noise impact analysis includes the following worksheet project information and calculations:

Table A-1: Estimated background noise levels for six noise-sensitive receptors surrounding Folsom Dam
Table A-2: Applicable community noise standards
Table A-3: Project construction schedule bar chart.
Table A-4: Summary of construction noise levels for each construction activity.
Table A-5: Ground topography noise reduction calculations
Tables A-6, A-7, A-8: Daytime, nighttime and 24-hour noise calculations at each noise-sensitive receptor
Table A-9:Summary of Best Available Control Technology (BACT) Noise Calculations
Table A-10: Comparison of construction noise impacts to applicable community noise standards
Table A-11: Summary of construction noise impacts for each project alternative.

Estimated Background Noise Levels

Data provided in the the U.S. EPA, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, March 1974 was used to define ambient daytime and nighttime L_{eq} and L_{dn} noise conditions around the Folsom Dam project site. The L_{dn} noise levels are based on the various land use descriptors. The daytime and nighttime L_{eq} noise levels were estimated based on the L_{dn} noise levels. According this EPA document, typically, there is a 10-dBA change in noise levels between the daytime and nighttime.

Community Noise Standards

Projected construction noise levels were also compared with exterior noise standards for the City of Folsom, Sacramento County, El Dorado County, Placer County and the Granite Bay Community to assess potential noise impacts, and identify and evaluate noise control measures to reduce noise impacts

Construction Schedule Bar Chart

Presents a summary of the construction schedule from 2007 through 2014 for each phase of the project. Sources are Bureau of

Construction Noise Impacts at Each Noise Sensitive Receptor

Using the construction noise levels calculated for each construction activity **(See README FILE 2 - Construction Activity Noise Level Calculations)**, the Lmax/Leq noise level calculated at each noise-sensitve receptor was performed using the following equations:

$$L_{max}/L_{eq}\ (\text{equipment}) = EL - 25\log_{10}(d/50) - A_1 - A_2$$

Where:

EL is the estimated overall L_{max}/L_{eq} noise level at 50 feet (dBA)
d is the distance from the center of the construction activity site to noise-sensitive receptor (feet)
A_1 is the site-specific excess attenuation due to ground and/or barrier effects
A_2 is the excess attenuation due to atmospheric absorption

Ground Topography Noise Reduction Calculations

Topography noise reductions calculations were conducted to evaluate the potential noise reductions associated with differences in elevations between noise sources and receivers. Since the majority of construction and materials processing will be occurring near the Folsom Lake shoreline, there is difference in elevation between the Lake and receivers at the majority of the sites. These differences range from 0 to 120 feet. CDM calculated the potential noise reduction due to changes in topography using a barrier model developed by Cavanuagh Tocci Associates, Inc., 1993. This model is based on barrier insertion loss equations presented in C.M. Harris, Handbook of Acoustic Measurements and Noise Control, 3rd Ed., 1991.

BACT Noise Calculations

There are two principal criteria for evaluating noise impacts of a project: evaluating the increase in noise levels above the existing ambient levels as a result of the project, and compliance with relevant standards and regulations. The following general guidelines were used to assess construction noise impacts, as compared to existing ambient levels:

- Less than a 3 dBA increase in sound level is considered no impact;
- A 3 to 5 dBA increase in sound level is a slight impact;
- A 6 to 10 dBA increase in sound level is a moderate impact; and
-A greater than 10 dBA increase in sound level is a severe impact.

The applicable CEQA significance criteria for noise include: a substantial increase in ambient noise levels in the project vicinity above existing levels, or a substantial temporary or periodic increase in ambient noise levels in the project vicinity.

Established BACT noise limits based on the following mitigation measures:

For quasi-stationary and stationary sources, such as drill rigs, blasting and rock crushing/screening operations, portable and stationary barriers will be used to partially enclose these noise sources. These barriers will be designed to reduce noise levels a minimum of 10 dBA.

Portable barrier design will consist of a concrete base for stability and a steel frame to support noise control fabric. Fabric sections will overlap and securely attach each other on the steel frame support. The height of the barrier will be no less than 12 feet above ground level. The noise barrier fabric will meet the following requirements:

- Minimum noise reduction coefficient (NRC) rating of 0.85
- Minimum sound transmission coefficient (STC) rating of 32
- Minimum thickness of 1.5 inches
- Weight of 1.5 lbs/sq ft.
- Minimum height of 12 feet

Stationary barrier design will constructed of sound absorption material, such as foam or mineral fiber, which will be a minimum of 4 inches thick. The absorption material will be covered with perforated 24-gauge sheet metal, plywood or equivalent material. The barrier will be designed with no gaps between panels or the ground. The height of the barrier will be no less than 12 feet

- Minimum noise reduction coefficient (NRC) rating of 0.95
- Minimum sound transmission coefficient (STC) rating of 33
- Minimum thickness of 4 inches
- Weight of 5 lbs/sq ft.
- Minimum height of 12 feet

Comparison of Construction Noise Impacts to Applicable Community Noise Standards

Compared L_{max}, L_{eq}, L_{50} and L_{dn} construction noise levels to applicable city and county noise standards to determine potential noise impacts.

Summary of Construction Noise Impacts for Each Project Alternative.

There were no major changes in number of pieces of construction equipment or processing sites between each project alternative. The only change between alternatives would be the duration of construction based on the number of days of construction for each construction phase. For major construction phases that would be adjacent to noise-sensitive receptors, the construction duration, in total number of days and the projected L_{dn} noise level at each noise-sensitive receptor were used to calculate a construction period average L_{dn} noise level for each project alternative using the following equation:

$$L_{dn_const} = 10\log_{10}\left(\frac{Xi}{XT}\sum_{i}^{XT}10^{(L_{dn}/10)} + 10^{(L_{dn_ex}/10)}\right)$$

Where:

L_{dn_const} = average Ldn noise level for the construction period
X_T = total potential number of days of construction
X_i = total number of days of construction for each alternative
L_{dn} = projected day-night noise level at each receptor
L_{dn_ex} = existing day-night noise level at each receptor

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Table A-1
Summary of Estimated Ambient Noise Conditions

Receptor Locations		Ambient Noise Levels			Distance from Center of Construction/Processing Activity
Receptor Id.	Description	Daytime L_{eq}	Nighttime L_{eq}	L_{dn}	
1	East Natoma St. Residential Area, Folsom	60	50	60	1,640 feet from Dike 7 Construction Site to homes on Mountain View Drive
2	Haley Drive Near Granite Beach, Granite Bay	45	35	45	1,800 feet from Granite Bay Borrow Site to homes off of Haley Drive
3	Vista Mar Drive, El Dorado Hills	50	40	50	4,100 feet from MIAD Construction Site to homes on Kipps Lane
4	400 Lake Ridge Courtt, El Dorado Hills	50	40	50	2,000 feet from MIAD Left Abutment Borrow Area to homes on Lakeridge Court
5	Oak Leaf and Auburn-Folsom Road	60	50	60	1,900 feet from South Beal's Point Borrow Area to residential area off of Auburn-Folsom Road
6	Lake Shore Drive, Granite Bay	45	35	45	900 feet from North Beals Point Borrow Area

Note: Ambient noise levels are estimates based on land use conditions.

Source: U.S. EPA, Information on Levels of Environmental Noise Requisite to Protect Public Health

Table A-2
Local Government Non-Transportation Noise Standards (dBA)

Noise Element Jurisdiction/Land Use Category	Maximum Allowable Exterior Noise Levels					
	Daytime 7a.m. - 7p.m.		Evening 7 p.m. - 10 p.m.		Nighttime 10p.m. - 7 a.m.	
	Hourly		Hourly		Hourly	
Sacramento County	L_{50}	L_{max}	L_{50}	L_{max}	L_{50}	L_{max}
Residential Areas	50	70	50	70	45	65
City of Folsom	Construction noise is exempt from the City of Folsom Noise Element provided that construction does not take place before 7 a.m. or after 6 p.m. during weekdays and before 8 a.m. or after 5 p.m on weekends.					
	Hourly		Hourly		Hourly	
El Dorado County [1]	L_{eq}	L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}
Residential areas (Community Areas)	55	75	50	65	45	60
Residential Areas (Rural Regions)	50	60	45	55	40	50
Commercial areas (Community Areas)	70	90	65	75	65	75
Commercial areas (Rural Regions)	65	75	60	70	60	70
Open Space, Natural Resource (Rural Regions)	65	75	60	70	60	70
Placer County[2] including Granite Bay Community			L_{dn}			
Residential			50			
Residential Areas Adjacent to Industrial			60			
General Commerical			70			
Heavy Commercial/Industrial Park			75			
Recreation & Forestry			70			
All land uses interior allowable noise level			45			

Notes:

[1] Non-transportation construction noise standards.

[2] Single event impulsive noise levels produced by blasting shall not exeed a peak linear overpressure of 122 dB, or a C-weighted Sound Exposure Level (SEL) of 98 dBC. The cumulative noise level from blasting shall not exceed 60 dB LC_{dn} or CNELC on any given day.

Sources:

County of Sacramento General Plan Noise Element (December 1993, amended 1998)
City of Folsom Municipal Code, Chapter 8.42 Noise Control
El Dorado County General Plan, Public Health, Safety and Noise Element (July 2004)
Placer County General Plan Update, Section 9 Noise (August 1994)
Granite Bay Community Plan Noise Element (Amended 1996)

Table A-3 Construction Schedule **9/6/2006**

Project Feature		2007	2008	2009	2010	2011	2012	2013	2014
Main Dam Staging Area - Concrete Dam Raise, Tendons and Shear Keys, Tunnel Construction	Alt 1								
	Alt 2								
	Alt 3								
	Alt 4								
	Alt 5								
Beal's Point Staging Area, Borrow, RWD, Dike 4, Dike 5, Dike 6	Alt 1								
	Alt 2								
	Alt 3								
	Alt 4								
	Alt 5								
Mooney Ridge Stripping/Excavation and Construction	Alt 1								
	Alt 2								
	Alt 3								
	Alt 4								
	Alt 5								
Dike 7/Folsom Point Staging, Auxilliary Spillway, MIAD, LWD, Dike 7, Dike 8	Alt 1								
	Alt 2								
	Alt 3								
	Alt 4								
	Alt 5								
Granite Bay Staging, Borrow, Dikes 1, 2, 3	Alt 1								
	Alt 2								
	Alt 3								
	Alt 4								
	Alt 5								

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Table A-4
Summary of Construction Activity Noise Levels (dBA)

	Alternative 1				Alternative 2				Alternative 3				Alternative 4				Alternative 5			
Construction Activities	**Total Lmax @ 50'**	**BACT Total Lmax @ 50'**	**Total L_{eq} @ 50'**	**BACT Total L_{eq} @ 50'**	**Total Lmax @ 50'**	**BACT Total Lmax @ 50'**	**Total L_{eq} @ 50'**	**BACT Total L_{eq} @ 50'**	**Total Lmax @ 50'**	**BACT Total Lmax @ 50'**	**Total L_{eq} @ 50'**	**BACT Total L_{eq} @ 50'**	**Total Lmax @ 50'**	**BACT Total Lmax @ 50'**	**Total L_{eq} @ 50'**	**BACT Total L_{eq} @ 50'**	**Total Lmax @ 50'**	**BACT Total Lmax @ 50'**	**Total L_{eq} @ 50'**	**BACT Total L_{eq} @ 50'**
Auxiliary Spillway Borrow Development Period **(Alt. 1, 2, 3 & 4)**	101	97	96	93	100	95	95	91	100	95	95	91	100	95	95	91	0	0	0	0
Auxiliary Spillway Construction **(Alt. 1, 2, 3 & 4)**	98	96	95	92	96	93	94	89	96	93	94	89	96	93	94	89	0	0	0	0
Tunnel Construction **(Alternative 2 only)**	0	0	0	0	98	94	94	89	0	0	0	0	0	0	0	0	0	0	0	0
RWD Stripping, Excavation & Construction **(All Alt.)**	96	93	94	89	97	94	94	90	97	94	94	90	97	94	94	89	97	94	94	89
LWD Stripping, Excavation & Construction **(All Alt.)**	96	93	0	94	96	93	94	89	96	93	94	89	96	93	94	89	96	93	94	89
Beals Point Borrow Development **(All Alt.)**	100	94	95	89	100	94	95	89	100	94	95	89	100	94	95	89	100	94	95	89
Dike 5 & 6 Stripping, Excavation & Construction **(All Alts.)**	96	93	94	89	96	93	94	89	96	93	94	89	96	93	94	89	97	94	94	89
Mooney Ridge Stripping, Excavation & Construction **(Alt. 2, 4 & 5)**	0	0	0	0	96	93	94	90	0	0	0	0	95	91	94	88	97	94	95	90
MIAD - Stripping/Excavation & Construction **(All Alt.)**	96	91	94	88	96	92	94	88	96	92	94	88	96	92	94	88	96	92	94	88
MIAD - Shell & Raise Foundation **(Alt. 1, 3 & 4)**	93	93	88	88	0	0	0	0	93	93	88	88	93	93	88	88	0	0	0	0
MIAD Jet Grouting **(Alt. 1, 3 & 4)**	92	90	87	86	0	0	0	0	92	90	87	86	92	90	87	86	0	0	0	0
Dike 7 & 8 Stripping, Excavation & Construction **(Alt. 2, 3, 4 & 5)**	0	0	0	0	95	91	94	87	95	91	94	87	95	91	94	87	95	91	94	87
Granite Bay Borrow Development **(Alt. 2, 3, 4 & 5)**	0	0	0	0	100	94	97	91	100	94	97	91	101	95	98	92	100	95	97	91
Dike 1, 2 & 3 Stripping, Excavation & Construction **(Alt. 2, 3, 4 & 5)**	0	0	0	0	96	91	94	88	96	91	94	88	96	91	94	88	96	92	94	88
Dike 4 Stripping, Excavation & Construction **(All Alt.)**	96	92	94	88	95	90	94	87	95	90	94	87	95	90	94	87	95	90	94	87
Main Concrete Dam Raise **(Alt. 2, 3, 4 & 5)**	0	0	0	0	87	87	81	81	87	87	81	81	87	87	81	81	87	87	81	81
Main Concrete Dam Tendons and Shears **(All Alts.)**	91	90	87	86	93	91	88	87	93	91	88	87	93	91	88	87	93	91	88	87
Folsom Point Area Borrow Area **(Alt. 5 only)**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	94	94	89

Table A-5
Topography Attenuation

Receptor ID.	Receptor Height (ft)	Receptor Elevation (ft)	Source Height (ft)	Source Elevation (ft)
1	5	450	10	450
2	5	450	10	440
3	5	600	10	500
4	5	600	10	400
5	5	450	10	400
6	5	600	10	480

Source: USGS topographic maps

Source:	Front End Loader		Rec.:	Receptor 1		Barrier:	Earthen Berm				
x	y	z	x	y	z	x1	y1	z1	x2	y2	z2
0	0	140.2	0	500	138.7	-50	0	137.2	50	0	137.2
		Octave Center Band Frequency (Hz)									
		31.5	63	125	250	500	1000	2000	4000	8000	16000
Attenuation (dB)		**0.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Source:	Front End Loader		Rec.:	Receptor 2		Barrier:	Earthen Berm				
x	y	z	x	y	z	x1	y1	z1	x2	y2	z2
0	0	137	0	671	138.5	-50	0	138	50	0	138
		Octave Center Band Frequency (Hz)									
		31.5	63	125	250	500	1000	2000	4000	8000	16000
Attenuation (dB)		**5.4**	**6.4**	**7.8**	**9.9**	**12.4**	**15.3**	**18.3**	**21.3**	**24.0**	**24.0**

Source:	Front End Loader		Rec.:	Receptor 3		Barrier:	Earthen Berm				
x	y	z	x	y	z	x1	y1	z1	x2	y2	z2
0	0	153.4	0	1250	184.5	-50	0	183	50	0	183
		Octave Center Band Frequency (Hz)									
		31.5	63	125	250	500	1000	2000	4000	8000	16000
Attenuation (dB)		**11.8**	**14.8**	**17.8**	**20.8**	**23.8**	**24.0**	**24.0**	**24.0**	**24.0**	**24.0**

Source:	Front End Loader		Rec.:	Receptor 4		Barrier:	Earthen Berm				
x	y	z	x	y	z	x1	y1	z1	x2	y2	z2
0	0	153.4	0	610	184.5	-50	0	183	50	0	183
		Octave Center Band Frequency (Hz)									
		31.5	63	125	250	500	1000	2000	4000	8000	16000
Attenuation (dB)		**11.8**	**14.8**	**17.8**	**20.8**	**23.8**	**24.0**	**24.0**	**24.0**	**24.0**	**24.0**

Source:	Front End Loader		Rec.:	Receptor 5		Barrier:	Earthen Berm				
x	y	z	x	y	z	x1	y1	z1	x2	y2	z2
0	0	125	0	580	139	-50	0	137	50	0	137
		Octave Center Band Frequency (Hz)									
		31.5	63	125	250	500	1000	2000	4000	8000	16000
Attenuation (dB)		**9.8**	**12.6**	**15.5**	**18.6**	**21.6**	**24.0**	**24.0**	**24.0**	**24.0**	**24.0**

Source:	Front End Loader		Rec.:	Receptor 6		Barrier:	Earthen Berm				
x	y	z	x	y	z	x1	y1	z1	x2	y2	z2
0	0	149	0	275	184.5	-50	0	183	50	0	183
		Octave Center Band Frequency (Hz)									
		31.5	63	125	250	500	1000	2000	4000	8000	16000
Attenuation (dB)		**12.1**	**15.1**	**18.1**	**21.1**	**24.0**	**24.0**	**24.0**	**24.0**	**24.0**	**24.0**

Notes:
Based on a barrier model developed by Cavanuagh Tocci Associates, Inc., 1993.
Coordinates and elevations are in meters.

The 250 Hz octave band frequency was selected to represent topograhic attenuation because according to EPA construction equipment noise frequency is 250 Hz..

Source: U.S. EPA, Noise From Construction Equipment and Operations Building and Home Appliances, December 1971.

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Table A-6

CONSTRUCTION NOISE MODELING ANALYSIS

Daytime Projected Noise Levels

Construction Activity Noise Levels (dBA)					
Project Feature	**Alternative ID.**	**Unmitigated L_{max} Levels @ 50'**	**BACT L_{max} Levels @ 50'**	**Unmitigated L_{eq} Levels @ 50'**	**BACT L_{eq} Levels @ 50'**
Auxiliary Spillway Borrow Development Period (Alts. 1, 2, 3 & 4)	1	101	97	96	93
	2	100	95	95	91
	3	100	95	95	91
	4	100	95	95	91
Beals Point Borrow Dev. (All Alts.)	1	100	94	95	89
	2	100	94	95	89
	3	100	94	95	89
	4	100	94	95	89
	5	100	94	95	89
MIAD Stripping/Excavation & Construction (All Alts.)	1	96	91	94	88
	2	96	92	94	88
	3	96	92	94	88
	4	96	92	94	88
	5	96	92	94	88
Granite Bay Borrow Dev. (Alts. 2, 3, 4 & 5)	2	100	94	97	91
	3	101	95	98	92
	4	101	95	98	92
	5	100	95	97	91
Dike 7 & 8 Stripping, Excavation & Construction (Alt. 2, 3, 4 & 5)	2	95	91	94	87
	3	95	91	94	87
	4	95	91	94	87
	5	95	91	94	87

Note: These construction activities represent those that would generate the highest noise impacts at receptors.

PROJECTED UNMITIGATED NOISE LEVELS																	
							Alternative 1		**Alternative 2**		**Alternative 3**		**Alternative 4**		**Alternative 5**		
Receptor ID.	**Receptor Location**	**Existing Daytime L_{eq} (dBA)**	**Distance from Nearest Construction Site (ft)**	**Distance Divergence (dBA)**	**Topography Shielding (dBA)**	**Atmospheric Attenuation (dBA)**	**L_{max} (dBA)**	**L_{eq} (dBA)**	**L_{max} (dBA)**	**L_{eq} (dBA)**	**L_{max} (dBA)**	**L_{eq} (dBA)**	**L_{max} (dBA)**	**L_{eq} (dBA)**	**L_{max} (dBA)**	**L_{eq} (dBA)**	**Major Project Feature Impacting Receptor**
1	East Natoma St. Residential Area, Folsom	60	1,640	38	0	2	63	61	63	61	63	61	63	61	61	61	Alts 1 -4: Auxiliary Spillway Borrow & Alt. 5: Dike 8 Construction
2	Haley Drive Near Granite Beach, Granite Bay*	45	2,200	41	10	3	45	45	48	47	49	48	49	48	49	47	Alt. 1 - Beals Pt. Borrow Dev. & Alt. 2, 3, 4 & 5 - Granite Bay Borrow Dev.
3	Vista Mar Drive, El Dorado Hills	50	4,100	48	20	5	50	50	50	50	50	50	50	50	50	50	All Alts. -MIAD Stripping, Excavation & Construction
4	400 Lakeridge Ct, El Dorado Hills	50	2,000	40	20	3	50	50	50	50	50	50	50	50	50	50	All Alts. -MIAD Stripping, Excavation & Construction
5	Oak Leaf and Auburn-Folsom Road	60	1,900	39	20	2	60	60	60	60	60	60	60	60	60	60	All Alts.- Beals Pt. Borrow Dev.
6	Lake Shore Drive, Granite Bay	45	935	32	20	1	49	47	49	47	49	47	49	47	49	47	All Alts. - Beals Pt. Borrow Dev.

Table A-6
CONSTRUCTION NOISE MODELING ANALYSIS
Daytime Projected Noise Levels

PROJECTED MITIGATED NOISE LEVELS

Receptor ID.	Receptor Location	Existing Daytime L_{eq} (dBA)	Distance from Nearest Construction Site (ft)	Distance Divergence (dBA)	Topography Shielding (dBA)	Atmospheric Attenuation (dBA)	Alternative 1		Alternative 2		Alternative 3		Alternative 4		Alternative 5		Major Project Feature Impacting Receptor
							L_{max} (dBA)	L_{eq} (dBA)	L_{max} (dBA)	L_{eq} (dBA)	L_{max} (dBA)	L_{eq} (dBA)	L_{max} (dBA)	L_{eq} (dBA)	L_{max} (dBA)	L_{eq} (dBA)	
1	East Natoma St. Residential Area, Folsom	60	1,640	38	0	2	62	61	61	61	61	61	61	61	60	60	Alts 1 -4: Auxiliary Spillway Borrow & Alt. 5: Dike 8 Construction
2	Haley Drive Near Granite Beach, Granite Bay*	45	2,200	41	10	3	45	45	46	46	46	46	46	46	46	46	Alt. 1 - Beals Pt. Borrow Dev. & Alt. 2, 3, 4 & 5 - Granite Bay Borrow Dev.
3	Vista Mar Drive, El Dorado Hills	50	4,100	48	20	5	50	50	50	50	50	50	50	50	50	50	All Alts. -MIAD Stripping, Excavation & Construction
4	400 Lakeridge Ct, El Dorado Hills	50	2,000	40	20	3	50	50	50	50	50	50	50	50	50	50	All Alts. -MIAD Stripping, Excavation & Construction
5	Oak Leaf and Auburn-Folsom Road	60	1,900	39	20	2	60	60	60	60	60	60	60	60	60	60	All Alts.- Beals Pt. Borrow Dev.
6	Lake Shore Drive, Granite Bay	45	935	32	20	1	46	46	47	46	47	46	47	46	47	46	All Alts. - Beals Pt. Borrow Dev.

Note: * For Alternative 1 the distance from the Beals Point Borrow Point to Receptor 2 is 9,940 feet; therefore, the noise reduction due to distance is 57 dBA.

COMPARISON OF UNMITIGATED NOISE LEVELS (dBA)

Receptor ID.	Receptor Location	Existing Daytime L_{eq}	Alternative 1		Alternative 2		Alternative 3		Alternative 4		Alternative 5	
			Daytime L_{eq}	Increase Above Existing Daytime L_{50}/L_{eq}	Daytime L_{eq}	Increase Above Existing Daytime L_{50}/L_{eq}	Daytime L_{eq}	Increase Above Existing Daytime L_{50}/L_{eq}	Daytime L_{eq}	Increase Above Existing Daytime L_{50}/L_{eq}	Daytime L_{eq}	Increase Above Existing Daytime L_{50}/L_{eq}
1	East Natoma St. Residential Area, Folsom	60	61	1	61	1	61	1	61	1	61	1
2	Haley Drive Near Granite Beach, Granite Bay	45	45	0	47	2	48	3	48	3	47	2
3	Vista Mar Drive, El Dorado Hills	50	50	0	50	0	50	0	50	0	50	0
4	400 Lakeridge Ct, El Dorado Hills	50	50	0	50	0	50	0	50	0	50	0
5	Oak Leaf and Auburn-Folsom Road	60	60	0	60	0	60	0	60	0	60	0
6	Lake Shore Drive, Granite Bay	45	47	2	47	2	47	2	47	2	47	2

COMPARISON OF MITIGATED NOISE LEVELS (dBA)

Receptor ID.	Receptor Location	Existing Daytime L_{eq}	Alternative 1		Alternative 2		Alternative 3		Alternative 4		Alternative 5	
			BACT Daytime L_{eq}	Increase Above Existing Daytime L_{50}/L_{eq}	BACT Daytime L_{eq}	Increase Above Existing Daytime L_{50}/L_{eq}	BACT Daytime L_{eq}	Increase Above Existing Daytime L_{50}/L_{eq}	BACT Daytime L_{eq}	Increase Above Existing Daytime L_{50}/L_{eq}	BACT Daytime L_{eq}	Increase Above Existing Daytime L_{50}/L_{eq}
1	East Natoma St. Residential Area, Folsom	60	61	1	61	1	61	1	61	1	60	0
2	Haley Drive Near Granite Beach, Granite Bay	45	45	0	46	1	46	1	46	1	46	1
3	Vista Mar Drive, El Dorado Hills	50	50	0	50	0	50	0	50	0	50	0
4	400 Lakeridge Ct, El Dorado Hills	50	50	0	50	0	50	0	50	0	50	0
5	Oak Leaf and Auburn-Folsom Road	60	60	0	60	0	60	0	60	0	60	0
6	Lake Shore Drive, Granite Bay	45	46	1	46	1	46	1	46	1	46	1

C.M. Harris, 1991, Atmospheric attenuation based on 1.3 dB/km reduction at 68°F and 50% humidity for 250 Hz.

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Table A-7

CONSTRUCTION NOISE MODELING ANALYSIS

Nighttime Projected Noise Levels

Construction Activity Noise Levels (dBA)					
Project Feature	**Alternative ID**	**Unmitigated L_{max} Levels @ 50'**	**BACT L_{max} Levels @ 50'**	**Unmitigated L_{eq} Levels @ 50'**	**BACT L_{eq} Levels @ 50'**
Auxiliary Spillway Borrow Development Period (Alts. 1, 2, 3 & 4)	1	101	97	96	93
	2	100	95	95	91
	4	100	95	95	91
Beals Point Borrow Dev. (All Alts.)	1	100	94	95	89
	2	100	94	95	89
	3	100	94	95	89
	4	100	94	95	89
	5	100	94	95	89
MIAD Stripping/Excavation & Construction (All Alts.)	1	96	91	94	88
	2	96	92	94	88
	3	96	92	94	88
	4	96	92	94	88
	5	96	92	94	88
Granite Bay Borrow Dev. (Alts. 2, 3, 4 & 5)	2	100	94	97	91
	3	101	95	98	92
	4	101	95	98	92
	5	100	95	97	91
Dike 7 & 8 Stripping, Excavation & Construction (Alt. 2, 3, 4 & 5)	2	95	91	94	87
	3	95	91	94	87
	4	95	91	94	87
	5	95	91	94	87

Note: These construction activities represent those that would generate the highest noise impacts at receptors.

PROJECTED UNMITIGATED NOISE LEVELS

							Alternative 1		Alternative 2		Alternative 3		Alternative 4		Alternative 5		
Receptor ID.	**Receptor Location**	**Existing Nighttime L_{eq} (dBA)**	**Distance from Nearest Construction Site (ft)**	**Distance Divergence (dBA)**	**Topography Shielding (dBA)**	**Atmospheric Attenuation (dBA)**	**L_{max} (dBA)**	**L_{eq} (dBA)**	**L_{max} (dBA)**	**L_{eq} (dBA)**	**L_{max} (dBA)**	**L_{eq} (dBA)**	**L_{max} (dBA)**	**L_{eq} (dBA)**	**L_{max} (dBA)**	**L_{eq} (dBA)**	**Major Project Feature Impacting Receptor**
1	East Natoma St. Residential Area, Folsom	50	1,640	38	0	2	61	57	61	56	61	56	61	56	56	55	Alts 1 -4: Auxiliary Spillway Borrow & Alt. 5: Dike 8 Construction
2	Haley Drive Near Granite Beach, Granite Bay*	35	2,200	41	10	3	35	35	46	44	47	45	47	45	46	44	Alt. 1 - Beals Pt. Borrow Dev. & Alt. 2, 3, 4 & 5 - Granite Bay Borrow Dev.
3	Vista Mar Drive, El Dorado Hills	40	4,100	48	20	5	40	40	40	40	40	40	40	40	40	40	All Alts. -MIAD Stripping, Excavation & Construction
4	400 Lakeridge Ct, El Dorado Hills	40	2,000	40	20	3	41	41	41	41	41	41	41	41	41	41	All Alts. -MIAD Stripping, Excavation & Construction
5	Oak Leaf and Auburn-Folsom Road	50	1,900	39	20	2	50	50	50	50	50	50	50	50	50	50	All Alts.- Beals Pt. Borrow Dev.
6	Lake Shore Drive, Granite Bay	35	935	32	20	1	47	42	47	42	47	42	47	42	47	42	All Alts. - Beals Pt. Borrow Dev.

Table A-7
CONSTRUCTION NOISE MODELING ANALYSIS
Nighttime Projected Noise Levels

PROJECTED MITIGATED NOISE LEVELS																	
							Alternative 1		Alternative 2		Alternative 3		Alternative 4		Alternative 5		
Receptor ID.	Receptor Location	Existing Nighttime L_{eq} (dBA)	Distance from Nearest Construction Site (ft)	Distance Divergence (dBA)	Topography Shielding (dBA)	Atmospheric Attenuation (dBA)	L_{max} (dBA)	L_{eq} (dBA)	L_{max} (dBA)	L_{eq} (dBA)	L_{max} (dBA)	L_{eq} (dBA)	L_{max} (dBA)	L_{eq} (dBA)	L_{max} (dBA)	L_{eq} (dBA)	Major Project Feature Impacting Receptor
1	East Natoma St. Residential Area, Folsom	50	1,640	38	0	2	58	54	56	53	56	53	56	53	53	52	Alts 1 -4: Auxiliary Spillway Borrow & Alt. 5: Dike 8 Construction
2	Haley Drive Near Granite Beach, Granite Bay*	35	2,200	41	10	3	35	35	41	39	42	40	42	40	42	39	Alt. 1 - Beals Pt. Borrow Dev. & Alt. 2, 3, 4 & 5 - Granite Bay Borrow Dev.
3	Vista Mar Drive, El Dorado Hills	40	4,100	48	20	5	40	40	40	40	40	40	40	40	40	40	All Alts. -MIAD Stripping, Excavation & Construction
4	400 Lakeridge Ct, El Dorado Hills	40	2,000	40	20	3	40	40	40	40	40	40	40	40	40	40	All Alts. -MIAD Stripping, Excavation & Construction
5	Oak Leaf and Auburn-Folsom Road	50	1,900	39	20	2	50	50	50	50	50	50	50	50	50	50	All Alts.- Beals Pt. Borrow Dev.
6	Lake Shore Drive, Granite Bay	35	935	32	20	1	42	39	42	39	42	39	42	39	42	39	All Alts. - Beals Pt. Borrow Dev.

Note: * For Alternative 1 the distance from the Beals Point Borrow Point to Receptor 2 is 9,940 feet; therefore, the noise reduction due to distance is 57 dBA.

COMPARISON OF UNMITIGATED NOISE LEVELS WITH EXISTING NOISE LEVELS (dBA)												
			Alternative 1		Alternative 2		Alternative 3		Alternative 4		Alternative 5	
Receptor ID.	Receptor Location	Existing Nighttime L_{eq}	Nighttime L_{eq}	Increase Above Existing Nighttime L_{50}/L_{eq}	Nighttime L_{eq}	Increase Above Existing Nighttime L_{50}/L_{eq}	Nighttime L_{eq}	Increase Above Existing Nighttime L_{50}/L_{eq}	Nighttime L_{eq}	Increase Above Existing Nighttime L_{50}/L_{eq}	Nighttime L_{eq}	Increase Above Existing Nighttime L_{50}/L_{eq}
1	East Natoma St. Residential Area, Folsom	50	57	7	56	6	56	6	56	6	55	5
2	Haley Drive Near Granite Beach, Granite Bay	35	35	0	44	9	45	10	45	10	44	9
3	Vista Mar Drive, El Dorado Hills	40	40	0	40	0	40	0	40	0	40	0
4	400 Lakeridge Ct, El Dorado Hills	40	41	1	41	1	41	1	41	1	41	1
5	Oak Leaf and Auburn-Folsom Road	50	50	0	50	0	50	0	50	0	50	0
6	Lake Shore Drive, Granite Bay	35	42	7	42	7	42	7	42	7	42	7

COMPARISON OF MITIGATED NOISE LEVELS WITH EXISTING NOISE LEVELS (dBA)												
			Alternative 1		Alternative 2		Alternative 3		Alternative 4		Alternative 5	
Receptor ID.	Receptor Location	Existing Nighttime L_{eq}	BACT Nighttime L_{eq}	Increase Above Existing Nighttime L_{50}/L_{eq}	BACT Nighttime L_{eq}	Increase Above Existing Nighttime L_{50}/L_{eq}	BACT Nighttime L_{eq}	Increase Above Existing Nighttime L_{50}/L_{eq}	BACT Nighttime L_{eq}	Increase Above Existing Nighttime L_{50}/L_{eq}	BACT Nighttime L_{eq}	Increase Above Existing Nighttime L_{50}/L_{eq}
1	East Natoma St. Residential Area, Folsom	50	54	4	53	3	53	3	53	3	52	2
2	Haley Drive Near Granite Beach, Granite Bay	35	35	0	39	4	40	5	40	5	39	4
3	Vista Mar Drive, El Dorado Hills	40	40	0	40	0	40	0	40	0	40	0
4	400 Lakeridge Ct, El Dorado Hills	40	40	0	40	0	40	0	40	0	40	0
5	Oak Leaf and Auburn-Folsom Road	50	50	0	50	0	50	0	50	0	50	0
6	Lake Shore Drive, Granite Bay	35	39	4	39	4	39	4	39	4	39	4

C.M. Harris, 1991, Atmospheric attenuation based on 1.3 dB/km reduction at 68°F and 50% humidity for 250 Hz.

Table A-8
CONSTRUCTION NOISE MODELING ANALYSIS
Day-Night Projected Noise Levels

Construction Activity Noise Levels (dBA)					
Project Feature	**Alternative ID.**	**Unmitigated L_{eq} Levels @ 50'**	**BACT L_{eq} Levels @ 50'**	**Unmitigated L_{dn} Levels @ 50'**	**BACT L_{dn} Levels @ 50'**
Auxiliary Spillway Borrow Development Period (Alts. 1, 2, 3 & 4)	1	96	93	98	95
	2	95	91	98	94
	3	95	91	98	94
	4	95	91	98	94
Beals Point Borrow Dev. (All Alts.)	1	95	89	97	92
	2	95	89	97	92
	3	95	89	97	92
	4	95	89	97	92
	5	95	89	97	92
MIAD Stripping/Excavation & Construction (All Alts.)	1	94	88	97	91
	2	94	88	97	91
	3	94	88	97	91
	4	94	88	97	91
	5	94	88	97	91
Granite Bay Borrow Dev. (Alts. 2, 3, 4 & 5)	2	97	91	100	93
	3	98	92	101	94
	4	98	92	101	94
	5	97	91	100	94
Dike 7 & 8 Stripping, Excavation & Construction (Alt. 2, 3, 4 & 5)	2	94	87	96	90
	3	94	87	96	90
	4	94	87	96	90
	5	94	87	96	90

Note: These construction activities represent those that would generate the highest noise impacts at receptors.

PROJECTED UNMITIGATED NOISE LEVELS												
							Alt. 1	**Alt. 2**	**Alt. 3**	**Alt. 4**	**Alt. 5**	
Receptor ID.	**Receptor Location**	**Existing L_{dn} (dBA)**	**Distance from Nearest Construction Site (ft)**	**Distance Divergence (dBA)**	**Topography Shielding (dBA)**	**Atmospheric Attenuation (dBA)**	**L_{dn} (dBA)**	**L_{dn} (dBA)**	**L_{dn} (dBA)**	**L_{dn} (dBA)**	**L_{dn} (dBA)**	**Major Project Feature Impacting Receptor**
1	East Natoma St. Residential Area, Folsom	60	1,640	38	0	2	62	62	62	63	62	Alts 1 -4: Auxiliary Spillway Borrow & Alt. 5: Dike 8 Construction
2	Haley Drive Near Granite Beach, Granite Bay*	45	2,200	41	10	3	45	48	49	49	48	Alt. 1 - Beals Pt. Borrow Dev. & Alt. 2, 3, 4 & 5 - Granite Bay Borrow Dev.
3	Vista Mar Drive, El Dorado Hills	50	4,100	48	20	5	50	50	50	50	50	All Alts. -MIAD Stripping, Excavation & Construction
4	400 Lakeridge Ct, El Dorado Hills	50	2,000	40	20	3	50	50	50	50	50	All Alts. -MIAD Excavate & Repl. Foundation
5	Oak Leaf and Auburn-Folsom Road	60	1,900	39	20	2	60	60	60	60	60	All Alts.- Beals Pt. Borrow Dev.
6	Lake Shore Drive, Granite Bay	45	935	32	20	1	48	48	48	48	48	All Alts. - Beals Pt. Borrow Dev.

CONSTRUCTION NOISE MODELING ANALYSIS

Day-Night Projected Noise Levels

PROJECTED MITIGATED NOISE LEVELS												
Receptor ID.	**Receptor Location**	**Existing L_{dn}**	**Distance from Nearest Construction Site (ft)**	**Distance Divergence (dBA)**	**Topography Shielding (dBA)**	**Atmospheric Attenuation (dBA)**	**Alt. 1** L_{dn} **(dBA)**	**Alt. 2** L_{dn} **(dBA)**	**Alt. 3** L_{dn} **(dBA)**	**Alt. 4** L_{dn} **(dBA)**	**Alt. 5** L_{dn} **(dBA)**	**Major Project Feature Impacting Receptor**
1	East Natoma St. Residential Area, Folsom	60	1,640	38	0	2	61	61	61	61	60	Alts 1 -4: Auxiliary Spillway Borrow & Alt. 5: Dike 8 Construction
2	Haley Drive Near Granite Beach, Granite Bay	45	2,200	41	10	3	45	46	46	46	46	Alt. 1 - Beals Pt. Borrow Dev. & Alt. 2, 3, 4 & 5 - Granite Bay Borrow Dev.
3	Vista Mar Drive, El Dorado Hills	50	4,100	48	20	5	50	50	50	50	50	All Alts. -MIAD Stripping, Excavation & Construction
4	400 Lakeridge Ct, El Dorado Hills	50	2,000	40	20	3	50	50	50	50	50	All Alts. -MIAD Excavate & Repl. Foundation
5	Oak Leaf and Auburn-Folsom Road	60	1,900	39	20	2	60	60	60	60	60	All Alts.- Beals Pt. Borrow Dev.
6	Lake Shore Drive, Granite Bay	45	935	32	20	1	46	46	46	46	46	All Alts. - Beals Pt. Borrow Dev.

Note: * For Alternative 1 the distance from the Beals Point Borrow Point to Receptor 2 is 9,940 feet; therefore, the noise reduction due to distance is 57 dBA.

C.M. Harris, 1991, Atmospheric attenuation based on 1.3 dB/km reduction at 68 ^{o}F and 50% humidity for 250 Hz.

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Table A-9

Summary of BACT Analysis

Projected Daytime Noise Levels

			Alternative 1		Alternative 2		Alternative 3		Alternative 4		Alternative 5		
Receptor ID.	**Receptor Location**	**Existing Daytime L_{eq}**	**BACT Daytime L_{eq} (dBA)**	**Increase Above Existing L_{eq} (dBA)**	**BACT Daytime L_{eq} (dBA)**	**Increase Above Existing L_{eq} (dBA)**	**BACT Daytime L_{eq} (dBA)**	**Increase Above Existing L_{eq} (dBA)**	**BACT Daytime L_{eq} (dBA)**	**Increase Above Existing L_{eq} (dBA)**	**BACT Daytime L_{eq} (dBA)**	**Increase Above Existing L_{eq} (dBA)**	**Noise Impact Descriptor**
1	East Natoma St. Residential Area, Folsom	60	61	1	61	1	61	1	61	1	60	0	None
2	Haley Drive Near Granite Beach, Granite Bay	45	45	0	46	1	46	1	46	1	46	1	None
3	Vista Mar Drive, El Dorado Hills	50	50	0	50	0	50	0	50	0	50	0	None
4	400 Lakeridge Ct, El Dorado Hills	50	50	0	50	0	50	0	50	0	50	0	None
5	Oak Leaf and Auburn-Folsom Road	60	60	0	60	0	60	0	60	0	60	0	None
6	Lake Shore Drive, Granite Bay	45	46	1	46	1	46	1	46	1	46	1	None

Projected Nighttime Noise Levels

			Alternative 1		Alternative 2		Alternative 3		Alternative 4		Alternative 5		
Receptor ID.	**Receptor Location**	**Existing Nighttime L_{eq}**	**BACT Nighttime L_{eq} (dBA)**	**Increase Above Existing L_{eq} (dBA)**	**BACT Nighttime L_{eq} (dBA)**	**Increase Above Existing L_{eq} (dBA)**	**BACT Nighttime L_{eq} (dBA)**	**Increase Above Existing L_{eq} (dBA)**	**BACT Nighttime L_{eq} (dBA)**	**Increase Above Existing L_{eq} (dBA)**	**BACT Nighttime L_{eq} (dBA)**	**Increase Above Existing L_{eq} (dBA)**	**Noise Impact Descriptor**
1	East Natoma St. Residential Area, Folsom	50	54	4	53	3	53	3	53	3	52	2	None to Slight
2	Haley Drive Near Granite Beach, Granite Bay	35	35	0	39	4	40	5	40	5	39	4	None to Slight
3	Vista Mar Drive, El Dorado Hills	40	40	0	40	0	40	0	40	0	40	0	None
4	400 Lakeridge Ct, El Dorado Hills	40	40	0	40	0	40	0	40	0	40	0	None
5	Oak Leaf and Auburn-Folsom Road	50	50	0	50	0	50	0	50	0	50	0	None
6	Lake Shore Drive, Granite Bay	35	39	4	39	4	39	4	39	4	39	4	Slight

Table A-10

Comparison of Mitigated Construction Noise Levels to Community Noise Standards

Receptor Locations		L_{max} Level (dBA)		Exceedance	L_{50}/L_{eq} Level (dBA)		Exceedance
Station Id.	Description	Daytime	Standard	Yes/No	Daytime	Standard	Yes/No
1	Natoma St. Residential Area, Folsom	62	**70**	**No**	61	**50**	**Yes**
2	Haley Drive Near Granite Beach, Granite Bay	46	**--**	**--**	46	--	**--**
3	Vista Mar Drive, El Dorado Hills	50	**75**	**No**	50	**55**	**No**
4	400 Lakeridge Ct, El Dorado Hills	50	**75**	**No**	50	**55**	**No**
5	Oak Leaf and Auburn-Folsom Road	60	**--**	**No**	60	--	**No**
6	Lake Shore Drive, Granite Bay	47	**--**	**--**	46	**--**	**--**

Receptor Locations		L_{max} Level (dBA)		Exceedance	L_{50}/L_{eq} Level (dBA)		Exceedance
Station Id.	Description	Nighttime	Standard	Yes/No	Nighttime	Standard	Yes/No
1	Natoma St. Residential Area, Folsom	58	**65**	**No**	54	**45**	**Yes**
2	Haley Drive Near Granite Beach, Granite Bay	42	**--**	**--**	40	--	**--**
3	Vista Mar Drive, El Dorado Hills	40	**60**	**No**	40	**45**	**No**
4	400 Lakeridge Ct, El Dorado Hills	40	**60**	**No**	40	**45**	**No**
5	Oak Leaf and Auburn-Folsom Road	50	**--**	**No**	50	--	**No**
6	Lake Shore Drive, Granite Bay	42	**--**	**--**	39	**--**	**--**

Receptor Locations		L_{dn} Level (dBA)		Exceedance
Station Id.	Description	Projected	Standard	Yes/No
1	Natoma St. Residential Area, Folsom	--	--	--
2	Haley Drive Near Granite Beach, Granite Bay	46	**50**	**No**
3	Vista Mar Drive, El Dorado Hills	--	--	--
4	400 Lakeridge Ct, El Dorado Hills	--	--	--
5	Oak Leaf and Auburn-Folsom Road	60	**50**	**Yes**
6	Lake Shore Drive, Granite Bay	46	**50**	**No**

Notes: Exceedances are due to existing background noise levels at or above the standards before adding in project noise levels.
Conservatively assumed that L_{50} noise level is equivalent to L_{eq} noise level.
Noise levels represent maximum BACT noise level for all five alternatives.

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Table A-11

Comparison of Project Alternatives Construction Noise Impacts

Receptor Locations		Major Construction Phase	Project Years	Construction Schedule Duration (total days)					
Station Id.	Description			Potential	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
1	Natoma St. Residential Area, Folsom	Alts 1 -4: Auxiliary Spillway Borrow & Alt. 5: Dike 8 Construction	2007-2009	780	780	600	600	600	0
			2012	300					150
2	Haley Drive Near Granite Beach, Granite Bay	Alt. 1 - Beals Pt. Borrow Dev. & Alt. 2, 3, 4 & 5 -Granite Bay Borrow Dev.	2007-2009	900	600				
			2013-2014	600		80	330	330	520
3	Vista Mar Drive, El Dorado Hills	All Alt. - MIAD Stripping, Excavation & Construction	2008-2010	900	700		700	440	
			2008-2011	1200		840			840
4	400 Lakeridge Ct, El Dorado Hills	All Alt. - MIAD Stripping, Excavation & Construction	2008-2010	900	700		700	440	
			2008-2011	1200		840			840
5	Oak Leaf and Auburn-Folsom Road	All Alts.- Beals Pt. Borrow Dev.	2007-2009	900	600	600	600	720	
			2007-2012	1200					1200
6	Lake Shore Drive, Granite Bay	All Alts. - Beals Pt. Borrow Dev.	2007-2009	900	600	600	600	720	
			2007-2012	1200					1200

Receptor Locations		Construction Period Average L_{dn} Noise Level						Impact Evaluation*	
Station Id.	Description	No-Action	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Lower	Higher
1	Natoma St. Residential Area, Folsom	60	65	64	64	65	63	Alt. 5	Alt. 1 & 4
2	Haley Drive Near Granite Beach, Granite Bay	45	47	49	50	50	51	Alt. 1	Alt. 5
3	Vista Mar Drive, El Dorado Hills	50	53	52	53	52	52	Alt. 2, 4 & 5	Alt. 1 & 3
4	400 Lakeridge Ct, El Dorado Hills	50	53	52	53	52	52	Alt. 2, 4 & 5	Alt. 1 & 3
5	Oak Leaf and Auburn-Folsom Road	60	62	62	62	63	63	Alt. 1, 2 & 3	Alt. 4 & 5
6	Lake Shore Drive, Granite Bay	45	50	50	50	50	51	Alt. 1, 2, 3 & 4	Alt. 5

Note: * Impact evaluation compares alternatives 1 through 5 amongst each other.

Construction Activity Noise Level Calculations

The type and quantity of construction equipment that is expected to be used for each type of activity based on information provided in the USACE, Folsom Dam Raise and Auxiliary Spillway Alternative PASS II Draft Report, February 2006 and by the Bureau of Reclamation. It also presents the L_{max} sound level and percent of time the equipment is operated at full power (usage factor) for each piece of construction equipment used. The L_{max} sound levels represent typical maximum noise that normally occurs during full power operation of the equipment. These levels typically only occur for a short duration, since the equipment is not operated at full power for an entire workday. The effects of both the L_{max} noise level and duration are included in the L_{eq} impact assessment.

The L_{eq} noise levels were calculated for each construction activity using the folloiwng equations

$$L_{eq\ (equipment)} = L_{max} + 10\log_{10}(UF/100\%)$$

Where:

The individual contributions of each piece of equipment were combined to obtain the overall maximum construction noise level for each construction phase using:

$$L_{max}/L_{eq\ (overall)} = 10\log_{10}\sum\ 10^{(L_{max}/L_{eq(equipment)})/10)}$$

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Alternative 1 - Construction Equipment for Each Construction Activity Noise Levels (dBA)

Construction Activities	Equipment types	Estimated Equipment Numbers Per Site	Usage Factor	Equipment L_{max} @ 50'	BACT L_{max} @ 50'	Add to Single Source Level (dBA)	Total Lmax @ 50'	BACT Total Lmax @ 50'	Equipment L_{eq} @ 50'	Total L_{eq} @ 50'	BACT Total L_{eq} @ 50'
Auxiliary Spillway Borrow Development Period **(Alt. 1, 2, 3 & 4)**	Dozers	3	40%	82	82	5	87	87	78	83	83
	Excavators	0	40%	81	81	0	0	0	0	0	0
	Drill Rigs	2	20%	84	74	3	87	77	77	80	70
	Graders with Rippers	0	40%	85	85	0	0	0	0	0	0
	Scrapers	10	40%	84	84	10	94	94	80	90	90
	Loaders	2	40%	79	79	3	82	82	75	78	78
	Dump Trucks	7	40%	76	76	8	84	84	72	80	80
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0
	Blasting	2	1%	94	84	3	97	87	74	77	67
	Onsite Hauling Trucks	11	40%	76	76	10	86	86	72	83	83
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75
	Total						**101**	**97**		**96**	**93**
Auxiliary Spillway Construction **(Alt. 1, 2, 3 & 4)**	Dozers	3	40%	82	82	5	87	87	78	83	83
	Water Truck	1	40%	76	76	0	76	76	72	72	72
	Concrete Transit Mixers	5	20%	80	80	7	87	87	73	80	80
	Scrapers	5	40%	84	84	7	91	91	80	87	87
	Excavators	0	40%	81	81	0	0	0	0	0	0
	Loaders	2	40%	79	79	3	82	82	75	78	78
	Small Crane	1	16%	81	81	0	81	81	73	73	73
	Compactors	1	20%	83	83	0	83	83	76	76	76
	Concrete Trucks	2	40%	79	79	3	82	82	75	78	78
	Dump Trucks	8	40%	76	76	9	85	85	72	81	81
	Onsite Hauling Trucks	11	40%	76	76	10	86	86	72	82	82
	Offsite Hauling Trucks	2	40%	76	76	3	79	79	72	75	75
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75
	Total						**98**	**96**		**95**	**92**
Tunnel Construction **(Alternative 2 only)**	Drill Rigs	0	20%	85	75	0	0	0	0	0	0
	Dozers	0	40%	82	82	0	0	0	0	0	0
	Excavators	0	40%	81	81	0	0	0	0	0	0
	Loaders	0	40%	79	79	0	0	0	0	0	0
	Small Crane	0	16%	81	81	0	0	0	0	0	0
	Compactors	0	20%	83	83	0	0	0	0	0	0
	Dump Trucks	0	40%	76	76	0	0	0	0	0	0
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0
	Blasting	0	1%	94	84	0	0	0	0	0	0
	Onsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0
	Offsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0
	Rock Crushing/Screening	0	80%	94	84	0	0	0	0	0	0
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0
	Total						**0**	**0**		**0**	**0**
RWD Stripping, Excavation & Construction **(All Alt.)**	Dozers	2	40%	82	82	3	85	85	78	81	81
	Water Truck	1	40%	76	76	0	76	76	72	72	72
	Excavators	1	40%	81	81	0	81	81	77	77	77
	Loaders	1	40%	79	79	0	79	79	75	75	75
	Small Crane	0	16%	81	81	0	0	0	0	0	0
	Dump Trucks	10	40%	76	76	10	86	86	72	82	82
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0
	Compactors	2	20%	83	83	3	86	86	76	79	79
	Onsite Hauling Trucks	5	40%	76	76	7	83	83	72	79	79
	Offsite Hauling Trucks	3	40%	76	76	4	80	80	72	76	76
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75
	Total						**96**	**93**		**94**	**89**
LWD Stripping, Excavation & Construction **(All Alt.)**	Dozers	1	40%	82	82	0	82	82	78	78	78
	Water Truck	1	40%	76	76	0	76	76	72	72	72
	Compactor	1	20%	83	80	0	83	80	76	76	73
	Scrapers	2	40%	84	84	3	87	87	80	83	83
	Loaders	2	40%	79	79	3	82	82	75	78	78
	Small Crane	1	16%	81	81	0	81	81	73	73	73
	Dump Trucks	6	40%	76	76	8	84	84	72	80	80
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0
	Onsite Hauling Trucks	3	40%	76	76	4	80	80	72	76	76
	Offsite Hauling Trucks	3	40%	76	76	4	80	80	72	76	76
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75
	Total						**96**	**93**		**94**	**89**

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Alternative 1 - Construction Equipment for Each Construction Activity Noise Levels (dBA)

Construction Activities	Equipment types	Estimated Equipment Numbers Per Site	Usage Factor	Equipment L_{max} @ 50'	BACT L_{max} @ 50'	Add to Single Source Level (dBA)	Total Lmax @ 50'	BACT Total Lmax @ 50'	Equipment L_{eq} @ 50'	Total L_{eq} @ 50'	BACT Total L_{eq} @ 50'
Beals Point Borrow Development **(All Alt.)**	Drill Rigs	2	20%	84	74	3	87	77	77	80	70
	Graders with Rippers	2	40%	85	85	3	88	88	81	84	84
	Scrapers	2	40%	84	84	3	87	87	80	83	83
	Loaders	2	40%	79	79	3	82	82	75	78	78
	Dump Trucks	4	40%	76	76	6	82	82	72	78	78
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0
	Blasting	2	1%	94	84	3	97	87	74	77	67
	Onsite Hauling Trucks	6	40%	76	76	7	83	83	72	80	80
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0
	Total						**100**	**94**		**95**	**89**
Dike 5 & 6 Stripping, Excavation & Construction **(All Alts.)**	Dozers	2	40%	82	82	3	85	85	78	81	81
	Water Truck	1	40%	76	76	0	76	76	72	72	72
	Excavators	0	40%	81	81	0	0	0	0	0	0
	Loaders	1	40%	79	79	0	79	79	75	75	75
	Small Crane	0	16%	81	81	0	0	0	0	0	0
	Compactors	1	20%	83	83	0	83	83	76	76	76
	Dump Trucks	7	40%	76	76	8	84	84	72	80	80
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0
	Onsite Hauling Trucks	7	40%	76	76	8	84	84	72	80	80
	Offsite Hauling Trucks	4	40%	76	76	5	81	81	72	77	77
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75
	Total						**96**	**93**		**94**	**89**
Mooney Ridge Stripping, Excavation & Construction **(Alt. 2, 4 & 5)**	Dozers	0	40%	82	82	0	0	0	0	0	0
	Scrapers	0	40%	84	84	0	0	0	0	0	0
	Loaders	0	40%	79	79	0	0	0	0	0	0
	Dump Trucks	0	40%	76	76	0	0	0	0	0	0
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0
	Onsite Hauling Trucks	0	40%	84	84	0	0	0	0	0	0
	Offsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0
	Rock Crushing/Screening	0	80%	94	84	0	0	0	0	0	0
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0
	Total						**0**	**0**		**0**	**0**
MIAD - Excavate & Replace Foundation **(All Alt.)**	Dozers	2	40%	82	82	3	85	85	78	81	81
	Water Truck	2	40%	76	76	3	79	79	72	75	75
	Grader with Rippers	0	40%	85	85	0	0	0	0	0	0
	Excavators	0	40%	81	81	0	0	0	0	0	0
	Loaders	2	40%	79	79	3	82	82	75	78	78
	Compactors	1	20%	83	83	0	83	83	76	76	76
	Dump Trucks	4	40%	76	76	6	82	82	72	78	78
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0
	Onsite Hauling Trucks	4	40%	76	76	6	82	82	72	78	78
	Offsite Hauling Trucks	2	40%	76	76	3	79	79	72	75	75
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0
	Total						**96**	**91**		**94**	**88**
MIAD - Shell & Raise Foundation **(Alt. 1, 3 & 4)**	Dozers	1	40%	82	82	0	82	82	78	78	78
	Graders with Rippers	2	40%	85	85	3	88	88	81	84	84
	Excavators	2	40%	81	81	3	84	84	77	80	80
	Loaders	5	40%	79	79	7	86	86	75	82	82
	Compactors	1	20%	83	83	0	83	83	76	76	76
	Dump Trucks	4	40%	76	76	6	82	82	72	78	78
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0
	Total						**93**	**93**		**88**	**88**
MIAD Jet Grouting **(Alt. 1, 3 & 4)**	Dozers	2	40%	82	82	3	85	85	78	81	81
	Graders with Rippers	1	40%	85	85	0	85	85	81	81	81
	Loaders	1	40%	79	79	0	79	79	75	75	75
	Dump Trucks	5	40%	76	76	7	83	83	72	79	79
	Drill Rigs	2	20%	85	75	3	88	78	78	81	71
	Pumps (Jet Grouting)	2	50%	77	77	3	80	80	74	77	77
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0
	Offsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0
	Total						**92**	**90**		**87**	**86**

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Alternative 1 - Construction Equipment for Each Construction Activity Noise Levels (dBA)

Construction Activities	Equipment types	Estimated Equipment Numbers Per Site	Usage Factor	Equipment L_{max} @ 50'	BACT L_{max} @ 50'	Add to Single Source Level (dBA)	Total Lmax @ 50'	BACT Total Lmax @ 50'	Equipment L_{eq} @ 50'	Total L_{eq} @ 50'	BACT Total L_{eq} @ 50'
Dike 7 & 8 Stripping, Excavation & Construction **(Alt. 2, 3, 4 & 5)**	Dozers	0	40%	82	82	0	0	0	0	0	0
	Water Truck	0	40%	76	76	0	0	0	0	0	0
	Excavators	0	40%	81	81	0	0	0	0	0	0
	Loaders	0	40%	79	79	0	0	0	0	0	0
	Compactors	0	20%	83	83	0	0	0	0	0	0
	Dump Trucks	0	40%	76	76	0	0	0	0	0	0
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0
	Onsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0
	Offsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0
	Rock Crushing/Screening	0	80%	94	84	0	0	0	0	0	0
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0
	Total						**0**	**0**		**0**	**0**
Granite Bay Borrow Development **(Alt. 2, 3, 4 & 5)**	Drill Rigs	0	20%	84	74	0	0	0	0	0	0
	Graders with Rippers	0	40%	85	85	0	0	0	0	0	0
	Scrapers	0	40%	84	84	0	0	0	0	0	0
	Loaders	0	40%	79	79	0	0	0	0	0	0
	Dump Trucks	0	40%	84	84	0	0	0	0	0	0
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0
	Onsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0
	Offsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0
	Blasting	0	1%	94	84	0	0	0	0	0	0
	Rock Crushing/Screening	0	80%	94	84	0	0	0	0	0	0
	Total						**0**	**0**		**0**	**0**
Dike 1, 2 & 3 Stripping, Excavation & Construction **(Alt. 2, 3, 4 & 5)**	Dozers	0	40%	82	82	0	0	0	0	0	0
	Excavators	0	40%	81	81	0	0	0	0	0	0
	Loaders	0	40%	79	79	0	0	0	0	0	0
	Compactors	0	20%	83	83	0	0	0	0	0	0
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0
	Dump Trucks	0	40%	76	76	0	0	0	0	0	0
	Onsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0
	Offsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0
	Rock Crushing/Screening	0	80%	94	84	0	0	0	0	0	0
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0
	Total						**0**	**0**		**0**	**0**
Dike 4 Stripping, Excavation & Construction **(All Alt.)**	Dozers	2	40%	82	82	3	85	85	78	81	81
	Water Truck	1	40%	76	76	0	76	76	72	72	72
	Compactors	2	20%	83	80	3	86	83	76	79	76
	Excavators	1	40%	81	81	0	81	81	77	77	77
	Loaders	1	40%	79	79	0	79	79	75	75	75
	Compactors	1	20%	83	83	0	83	83	76	76	76
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0
	Dump Trucks	7	40%	76	76	8	84	84	72	80	80
	Onsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72
	Offsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0
	Total						**96**	**92**		**94**	**88**
Main Concrete Dam Raise **(Alt. 2, 3, 4 & 5)**	Small Crane	0	16%	81	81	0	0	0	0	0	0
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0
	Dump Trucks	0	40%	76	76	0	0	0	0	0	0
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0
	Total						**0**	**0**		**0**	**0**
Main Concrete Dam Tendons and Shears **(All Alts.)**	Drill Rigs	0	20%	84	74	0	0	0	0	0	0
	Dozers	2	40%	82	82	3	85	85	78	81	81
	Scrapers	0	40%	84	84	0	0	0	0	0	0
	Loaders	2	40%	79	79	3	82	82	75	78	78
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0
	Dump Trucks	4	40%	76	76	6	82	82	72	78	78
	Onsite Hauling Trucks	2	40%	76	76	3	79	79	72	75	75
	Offsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72
	Pumps (Jet Grouting)	2	50%	81	77	3	84	80	78	81	77
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75
	Total						**91**	**90**		**87**	**86**
Folsom Point Area Borrow Area **(Alt. 5 only)**	Drill Rigs	0	20%	84	74	0	0	0	0	0	0
	Graders with Rippers	0	40%	85	85	0	0	0	0	0	0
	Scrapers	0	40%	84	84	0	0	0	0	0	0
	Loaders	0	40%	79	79	0	0	0	0	0	0
	Dump Trucks	0	40%	76	76	0	0	0	0	0	0
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0
	Onsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0
	Blasting	0	1%	94	84	0	0	0	0	0	0
	Rock Crushing/Screening	0	80%	94	84	0	0	0	0	0	0
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0
	Total						**0**	**0**		**0**	**0**

Notes:

Dump trucks category represent quarry, articulated and belly dump trucks.

Number of round trucktrips per hour estimated were based on on- and off-site haul and concrete truck projections over an 18-hour construction day.

Yellow highlighted noise levels are based on the installation of either portable or stationary barriers capable of reducing noise levels by 10 dBA (See Readme file for barrier design information).

Sources:

U.S. Army Corps, Folsom Dam Raise and Auxiliary Spillway Alternative PASSII Draft Report, Feburary 2006.
FHWA, Roadway Construction Noise Model, January 2006.
P. Yastrow, Laku Landing Sound Level Analysis, April 1990.
CDM, 2006

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Alternative 2 - Construction Equipment for Each Construction Activity Noise Levels (dBA)

Construction Activities	Equipment types	Estimated Equipment Numbers Per Site	Usage Factor	Equipment L_{max} @ 50'	BACT L_{max} @ 50'	Add to Single Source Level (dBA)	Total Lmax @ 50'	BACT Total Lmax @ 50'	Equipment L_{eq} @ 50'	Total L_{eq} @ 50'	BACT L_{eq} @ 50'	BACT Total L_{eq} @ 50'
Auxiliary Spillway Borrow Development Period **(Alt. 1, 2, 3 & 4)**	Dozers	0	40%	82	82	0	0	0	0	0	0	0
	Excavators	0	40%	81	81	0	0	0	0	0	0	0
	Drill Rigs	2	20%	84	74	3	87	77	77	80	67	70
	Graders with Rippers	3	40%	85	85	5	90	90	81	86	81	86
	Scrapers	3	40%	84	84	5	89	89	80	85	80	85
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Dump Trucks	7	40%	76	76	8	84	84	72	80	72	80
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Blasting	2	1%	94	84	3	97	87	74	77	64	67
	Onsite Hauling Trucks	8	40%	76	76	9	85	85	72	81	72	81
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**100**	**95**		**95**		**91**
Auxiliary Spillway Construction **(Alt. 1, 2, 3 & 4)**	Dozers	2	40%	82	82	3	85	85	78	81	78	81
	Water Truck	1	40%	76	76	0	76	76	72	72	72	72
	Concrete Transit Mixers	0	20%	80	80	0	0	0	0	0	0	0
	Scrapers	0	40%	84	84	0	0	0	0	0	0	0
	Excavators	2	40%	81	81	3	84	84	77	80	77	80
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Small Crane	1	16%	81	81	0	81	81	73	73	73	73
	Compactors	2	20%	83	83	3	86	86	76	79	76	79
	Concrete Trucks	1	40%	79	79	1	80	80	75	76	75	76
	Dump Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Onsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Offsite Hauling Trucks	3	40%	76	76	5	81	81	72	77	72	77
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**96**	**93**		**94**		**89**
Tunnel Construction **(Alternative 2 only)**	Drill Rigs	1	20%	85	75	0	85	75	78	78	68	68
	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Excavators	2	40%	81	81	3	84	84	77	80	77	80
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Small Crane	1	16%	81	81	0	81	81	73	73	73	73
	Compactors	2	20%	83	83	3	86	86	76	79	76	79
	Dump Trucks	3	40%	76	76	5	81	81	72	77	72	77
	Concrete Trucks	2	40%	79	79	3	82	82	75	78	75	78
	Blasting	1	1%	94	84	0	94	84	74	74	64	64
	Onsite Hauling Trucks	3	40%	76	76	5	81	81	72	77	72	77
	Offsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**98**	**94**		**94**		**89**
RWD Stripping, Excavation & Construction **(All Alt.)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Water Truck	1	40%	76	76	0	76	76	72	72	72	72
	Excavators	2	40%	81	81	3	84	84	77	80	77	80
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Small Crane	1	16%	81	81	0	81	81	73	73	73	73
	Dump Trucks	10	40%	76	76	10	86	86	72	82	72	82
	Concrete Trucks	1	40%	79	79	0	79	79	75	75	75	75
	Compactors	2	20%	83	83	3	86	86	76	79	76	79
	Onsite Hauling Trucks	7	40%	76	76	8	84	84	72	80	72	80
	Offsite Hauling Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**97**	**94**		**94**		**90**
LWD Stripping, Excavation & Construction **(All Alt.)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Water Truck	1	40%	76	76	0	76	76	72	72	72	72
	Compactor	0	20%	83	80	0	0	0	0	0	0	0
	Scrapers	2	40%	84	84	3	87	87	80	83	80	83
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Small Crane	1	16%	81	81	0	81	81	73	73	73	73
	Dump Trucks	6	40%	76	76	8	84	84	72	80	72	80
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	8	40%	76	76	9	85	85	72	81	72	81
	Offsite Hauling Trucks	3	40%	76	76	5	81	81	72	77	72	77
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**96**	**93**		**94**		**89**

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Alternative 2 - Construction Equipment for Each Construction Activity Noise Levels (dBA)

Construction Activities	Equipment types	Estimated Equipment Numbers Per Site	Usage Factor	Equipment L_{max} @ 50'	BACT L_{max} @ 50'	Add to Single Source Level (dBA)	Total Lmax @ 50'	BACT Total Lmax @ 50'	Equipment L_{eq} @ 50'	Total L_{eq} @ 50'	BACT L_{eq} @ 50'	BACT Total L_{eq} @ 50'
Beals Point Borrow Development **(All Alt.)**	Drill Rigs	2	20%	84	74	3	87	77	77	80	67	70
	Graders with Rippers	2	40%	85	85	3	88	88	81	84	81	84
	Scrapers	2	40%	84	84	3	87	87	80	83	80	83
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Dump Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Blasting	2	1%	94	84	3	97	87	74	77	64	67
	Onsite Hauling Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**100**	**94**		**95**		**89**
Dike 5 & 6 Stripping, Excavation & Construction **(All Alts.)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Water Truck	1	40%	76	76	0	76	76	72	72	72	72
	Excavators	1	40%	81	81	0	81	81	77	77	77	77
	Loaders	1	40%	79	79	0	79	79	75	75	75	75
	Small Crane	1	16%	81	81	0	81	81	73	73	73	73
	Compactors	1	20%	83	83	0	83	83	76	76	76	76
	Dump Trucks	10	40%	76	76	10	86	86	72	82	72	82
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	10	40%	76	76	10	86	86	72	82	72	82
	Offsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**96**	**93**		**94**		**89**
Mooney Ridge Stripping, Excavation & Construction **(Alt. 2, 4 & 5)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Scrapers	2	40%	84	84	3	87	87	80	83	80	83
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Dump Trucks	3	40%	76	76	5	81	81	72	77	72	77
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	3	40%	84	84	5	89	89	80	85	80	85
	Offsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**96**	**93**		**94**		**90**
MIAD - Excavate & Replace Foundation **(All Alt.)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Water Truck	1	40%	76	76	0	76	76	72	72	72	72
	Grader with Rippers	0	40%	85	85	0	0	0	0	0	0	0
	Excavators	2	40%	81	81	3	84	84	77	80	77	80
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Compactors	1	20%	83	83	0	83	83	76	76	76	76
	Dump Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Offsite Hauling Trucks	2	40%	76	76	3	79	79	72	75	72	75
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**96**	**92**		**94**		**88**
MIAD - Shell & Raise Foundation **(Alt. 1, 3 & 4)**	Dozers	0	40%	82	82	0	0	0	0	0	0	0
	Graders with Rippers	0	40%	85	85	0	0	0	0	0	0	0
	Excavators	0	40%	81	81	0	0	0	0	0	0	0
	Loaders	0	40%	79	79	0	0	0	0	0	0	0
	Compactors	0	20%	83	83	0	0	0	0	0	0	0
	Dump Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Total						**0**	**0**		**0**		**0**
MIAD Jet Grouting **(Alt. 1, 3 & 4)**	Dozers	0	40%	82	82	0	0	0	0	0	0	0
	Graders with Rippers	0	40%	85	85	0	0	0	0	0	0	0
	Loaders	0	40%	79	79	0	0	0	0	0	0	0
	Dump Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Drill Rigs	0	20%	85	75	0	0	0	0	0	0	0
	Pumps (Jet Grouting)	0	50%	77	77	0	0	0	0	0	0	0
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Offsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**0**	**0**		**0**		**0**

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Alternative 2 - Construction Equipment for Each Construction Activity Noise Levels (dBA)

Construction Activities	Equipment types	Estimated Equipment Numbers Per Site	Usage Factor	Equipment L_{max} @ 50'	BACT L_{max} @ 50'	Add to Single Source Level (dBA)	Total Lmax @ 50'	BACT Total Lmax @ 50'	Equipment L_{eq} @ 50'	Total L_{eq} @ 50'	BACT L_{eq} @ 50'	BACT Total L_{eq} @ 50'
Dike 7 & 8 Stripping, Excavation & Construction **(Alt. 2, 3, 4 & 5)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Water Truck	0	40%	76	76	0	0	0	0	0	0	0
	Excavators	1	40%	81	81	0	81	81	77	77	77	77
	Loaders	1	40%	79	79	0	79	79	75	75	75	75
	Compactors	1	20%	83	83	0	83	83	76	76	76	76
	Dump Trucks	2	40%	76	76	3	79	79	72	75	72	75
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	5	40%	76	76	7	83	83	72	79	72	79
	Offsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**95**	**91**		**94**		**87**
Granite Bay Borrow Development **(Alt. 2, 3, 4 & 5)**	Drill Rigs	1	20%	84	74	0	84	74	77	77	67	67
	Graders with Rippers	2	40%	85	85	3	88	88	81	84	81	84
	Scrapers	2	40%	84	84	3	87	87	80	83	80	83
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Dump Trucks	2	40%	84	84	3	87	87	80	83	80	83
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	2	40%	76	76	3	79	79	72	75	72	75
	Offsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Blasting	1	1%	94	84	0	94	84	74	74	64	64
	Rock Crushing/Screening	2	80%	94	84	3	97	87	93	96	83	86
	Total						**100**	**94**		**97**		**91**
Dike 1, 2 & 3 Stripping, Excavation & Construction **(Alt. 2, 3, 4 & 5)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Excavators	1	40%	81	81	0	81	81	77	77	77	77
	Loaders	1	40%	79	79	0	79	79	75	75	75	75
	Compactors	1	20%	83	83	0	83	83	76	76	76	76
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Dump Trucks	2	40%	76	76	3	79	79	72	75	72	75
	Onsite Hauling Trucks	7	40%	76	76	8	84	84	72	80	72	80
	Offsite Hauling Trucks	6	40%	76	76	7	83	83	72	79	72	79
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**96**	**91**		**94**		**88**
Dike 4 Stripping, Excavation & Construction **(All Alt.)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Water Truck	1	40%	76	76	0	76	76	72	72	72	72
	Compactors	0	20%	83	80	0	0	0	0	0	0	0
	Excavators	1	40%	81	81	0	81	81	77	77	77	77
	Loaders	1	40%	79	79	0	79	79	75	75	75	75
	Compactors	1	20%	83	83	0	83	83	76	76	76	76
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Dump Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Onsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Offsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**95**	**90**		**94**		**87**
Main Concrete Dam Raise **(Alt. 2, 3, 4 & 5)**	Small Crane	1	16%	81	81	0	81	81	73	73	73	73
	Concrete Trucks	2	40%	79	79	3	82	82	75	78	75	78
	Dump Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**87**	**87**		**81**		**81**
Main Concrete Dam Tendons and Shears **(All Alts.)**	Drill Rigs	2	20%	84	74	3	87	77	77	80	67	70
	Dozers	0	40%	82	82	0	0	0	0	0	0	0
	Scrapers	2	40%	84	84	3	87	87	80	83	80	83
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Concrete Trucks	1	40%	79	79	0	79	79	75	75	75	75
	Dump Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Onsite Hauling Trucks	2	40%	76	76	3	79	79	72	75	72	75
	Offsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Pumps (Jet Grouting)	2	50%	81	77	3	84	80	78	81	74	77
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**93**	**91**		**88**		**87**
Folsom Point Area Borrow Area **(Alt. 5 only)**	Drill Rigs	0	20%	84	74	0	0	0	0	0	0	0
	Graders with Rippers	0	40%	85	85	0	0	0	0	0	0	0
	Scrapers	0	40%	84	84	0	0	0	0	0	0	0
	Loaders	0	40%	79	79	0	0	0	0	0	0	0
	Dump Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Blasting	0	1%	94	84	0	0	0	0	0	0	0
	Rock Crushing/Screening	0	80%	94	84	0	0	0	0	0	0	0
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**0**	**0**		**0**		**0**

Notes:

Dump trucks category represent quarry, articulated and belly dump trucks.

Number of round trucktrips per hour estimated were based on on- and off-site haul and concrete truck projections over an 18-hour construction day.

Yellow highlighted noise levels are based on the installation of either portable or stationary barriers capable of reducing noise levels by 10 dBA (See Readme file for barrier design information).

Sources:

U.S. Army Corps, Folsom Dam Raise and Auxiliary Spillway Alternative PASSII Draft Report, Feburary 2006.

FHWA, Roadway Construction Noise Model, January 2006.

P. Yastrow, Laku Landing Sound Level Analysis, April 1990.

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Alternative 3 - Construction Equipment for Each Construction Activity Noise Levels (dBA)

Construction Activities	Equipment types	Estimated Equipment Numbers Per Site	Usage Factor	Equipment L_{max} @ 50'	BACT L_{max} @ 50'	Add to Single Source Level (dBA)	Total Lmax @ 50'	BACT Total Lmax @ 50'	Equipment L_{eq} @ 50'	Total L_{eq} @ 50'	BACT L_{eq} @ 50'	BACT Total L_{eq} @ 50'
Auxiliary Spillway Borrow Development Period **(Alt. 1, 2, 3 & 4)**	Dozers	0	40%	82	82	0	0	0	0	0	0	0
	Excavators	0	40%	81	81	0	0	0	0	0	0	0
	Drill Rigs	2	20%	84	74	3	87	77	77	80	67	70
	Graders with Rippers	3	40%	85	85	5	90	90	81	86	81	86
	Scrapers	3	40%	84	84	5	89	89	80	85	80	85
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Dump Trucks	7	40%	76	76	8	84	84	72	80	72	80
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Blasting	2	1%	94	84	3	97	87	74	77	64	67
	Onsite Hauling Trucks	8	40%	76	76	9	85	85	72	81	72	81
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**100**	**95**		**95**		**91**
Auxiliary Spillway Construction **(Alt. 1, 2, 3 & 4)**	Dozers	2	40%	82	82	3	85	85	78	81	78	81
	Water Truck	1	40%	76	76	0	76	76	72	72	72	72
	Concrete Transit Mixers	0	20%	80	80	0	0	0	0	0	0	0
	Scrapers	0	40%	84	84	0	0	0	0	0	0	0
	Excavators	2	40%	81	81	3	84	84	77	80	77	80
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Small Crane	1	16%	81	81	0	81	81	73	73	73	73
	Compactors	2	20%	83	83	3	86	86	76	79	76	79
	Concrete Trucks	1	40%	79	79	1	80	80	75	76	75	76
	Dump Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Onsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Offsite Hauling Trucks	3	40%	76	76	5	81	81	72	77	72	77
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**96**	**93**		**94**		**89**
Tunnel Construction **(Alternative 2 only)**	Drill Rigs	0	20%	85	75	0	0	0	0	0	0	0
	Dozers	0	40%	82	82	0	0	0	0	0	0	0
	Excavators	0	40%	81	81	0	0	0	0	0	0	0
	Loaders	0	40%	79	79	0	0	0	0	0	0	0
	Small Crane	0	16%	81	81	0	0	0	0	0	0	0
	Compactors	0	20%	83	83	0	0	0	0	0	0	0
	Dump Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Blasting	0	1%	94	84	0	0	0	0	0	0	0
	Onsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Offsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Rock Crushing/Screening	0	80%	94	84	0	0	0	0	0	0	0
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**0**	**0**		**0**		**0**
RWD Stripping, Excavation & Construction **(All Alt.)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Water Truck	1	40%	76	76	0	76	76	72	72	72	72
	Excavators	2	40%	81	81	3	84	84	77	80	77	80
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Small Crane	1	16%	81	81	0	81	81	73	73	73	73
	Dump Trucks	10	40%	76	76	10	86	86	72	82	72	82
	Concrete Trucks	1	40%	79	79	0	79	79	75	75	75	75
	Compactors	2	20%	83	83	3	86	86	76	79	76	79
	Onsite Hauling Trucks	7	40%	76	76	8	84	84	72	80	72	80
	Offsite Hauling Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**97**	**94**		**94**		**90**
LWD Stripping, Excavation & Construction **(All Alt.)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Water Truck	1	40%	76	76	0	76	76	72	72	72	72
	Compactor	0	20%	83	80	0	0	0	0	0	0	0
	Scrapers	2	40%	84	84	3	87	87	80	83	80	83
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Small Crane	1	16%	81	81	0	81	81	73	73	73	73
	Dump Trucks	6	40%	76	76	8	84	84	72	80	72	80
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	8	40%	76	76	9	85	85	72	81	72	81
	Offsite Hauling Trucks	3	40%	76	76	5	81	81	72	77	72	77
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**96**	**93**		**94**		**89**

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Alternative 3 - Construction Equipment for Each Construction Activity Noise Levels (dBA)

Construction Activities	Equipment types	Estimated Equipment Numbers Per Site	Usage Factor	Equipment L_{max} @ 50'	BACT L_{max} @ 50'	Add to Single Source Level (dBA)	Total Lmax @ 50'	BACT Total Lmax @ 50'	Equipment L_{eq} @ 50'	Total L_{eq} @ 50'	BACT L_{eq} @ 50'	BACT Total L_{eq} @ 50'
Beals Point Borrow Development **(All Alt.)**	Drill Rigs	2	20%	84	74	3	87	77	77	80	67	70
	Graders with Rippers	2	40%	85	85	3	88	88	81	84	81	84
	Scrapers	2	40%	84	84	3	87	87	80	83	80	83
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Dump Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Blasting	2	1%	94	84	3	97	87	74	77	64	67
	Onsite Hauling Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**100**	**94**		**95**		**89**
Dike 5 & 6 Stripping, Excavation & Construction **(All Alts.)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Water Truck	1	40%	76	76	0	76	76	72	72	72	72
	Excavators	1	40%	81	81	0	81	81	77	77	77	77
	Loaders	1	40%	79	79	0	79	79	75	75	75	75
	Small Crane	1	16%	81	81	0	81	81	73	73	73	73
	Compactors	1	20%	83	83	0	83	83	76	76	76	76
	Dump Trucks	10	40%	76	76	10	86	86	72	82	72	82
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	10	40%	76	76	10	86	86	72	82	72	82
	Offsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**96**	**93**		**94**		**89**
Mooney Ridge Stripping, Excavation & Construction **(Alt. 2, 4 & 5)**	Dozers	0	40%	82	82	0	0	0	0	0	0	0
	Scrapers	0	40%	84	84	0	0	0	0	0	0	0
	Loaders	0	40%	79	79	0	0	0	0	0	0	0
	Dump Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	0	40%	84	84	0	0	0	0	0	0	0
	Offsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Rock Crushing/Screening	0	80%	94	84	0	0	0	0	0	0	0
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**0**	**0**		**0**		**0**
MIAD - Excavate & Replace Foundation **(All Alt.)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Water Truck	1	40%	76	76	0	76	76	72	72	72	72
	Grader with Rippers	0	40%	85	85	0	0	0	0	0	0	0
	Excavators	2	40%	81	81	3	84	84	77	80	77	80
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Compactors	1	20%	83	83	0	83	83	76	76	76	76
	Dump Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Offsite Hauling Trucks	2	40%	76	76	3	79	79	72	75	72	75
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**96**	**92**		**94**		**88**
MIAD - Shell & Raise Foundation **(Alt. 1, 3 & 4)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Graders with Rippers	2	40%	85	85	3	88	88	81	84	81	84
	Excavators	2	40%	81	81	3	84	84	77	80	77	80
	Loaders	5	40%	79	79	7	86	86	75	82	75	82
	Compactors	1	20%	83	83	0	83	83	76	76	76	76
	Dump Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Total						**93**	**93**		**88**		**88**
MIAD Jet Grouting **(Alt. 1, 3 & 4)**	Dozers	2	40%	82	82	3	85	85	78	81	78	81
	Graders with Rippers	1	40%	85	85	0	85	85	81	81	81	81
	Loaders	1	40%	79	79	0	79	79	75	75	75	75
	Dump Trucks	5	40%	76	76	7	83	83	72	79	72	79
	Drill Rigs	2	20%	85	75	3	88	78	78	81	68	71
	Pumps (Jet Grouting)	2	50%	77	77	3	80	80	74	77	74	77
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Offsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**92**	**90**		**87**		**86**

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Alternative 3 - Construction Equipment for Each Construction Activity Noise Levels (dBA)

Construction Activities	Equipment types	Estimated Equipment Numbers Per Site	Usage Factor	Equipment L_{max} @ 50'	BACT L_{max} @ 50'	Add to Single Source Level (dBA)	Total Lmax @ 50'	BACT Total Lmax @ 50'	Equipment L_{eq} @ 50'	Total L_{eq} @ 50'	BACT L_{eq} @ 50'	BACT Total L_{eq} @ 50'
Dike 7 & 8 Stripping, Excavation & Construction **(Alt. 2, 3, 4 & 5)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Water Truck	0	40%	76	76	0	0	0	0	0	0	0
	Excavators	1	40%	81	81	0	81	81	77	77	77	77
	Loaders	1	40%	79	79	0	79	79	75	75	75	75
	Compactors	1	20%	83	83	0	83	83	76	76	76	76
	Dump Trucks	2	40%	76	76	3	79	79	72	75	72	75
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	5	40%	76	76	7	83	83	72	79	72	79
	Offsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**95**	**91**		**94**		**87**
Granite Bay Borrow Development **(Alt. 2, 3, 4 & 5)**	Drill Rigs	1	20%	84	74	0	84	74	77	77	67	67
	Graders with Rippers	2	40%	85	85	3	88	88	81	84	81	84
	Scrapers	2	40%	84	84	3	87	87	80	83	80	83
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Dump Trucks	2	40%	84	84	3	87	87	80	83	80	83
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	2	40%	76	76	3	79	79	72	75	72	75
	Offsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Blasting	1	1%	94	84	0	94	84	74	74	64	64
	Rock Crushing/Screening	2	80%	94	84	3	97	87	93	96	83	86
	Total						**100**	**94**		**97**		**91**
Dike 1, 2 & 3 Stripping, Excavation & Construction **(Alt. 2, 3, 4 & 5)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Excavators	1	40%	81	81	0	81	81	77	77	77	77
	Loaders	1	40%	79	79	0	79	79	75	75	75	75
	Compactors	1	20%	83	83	0	83	83	76	76	76	76
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Dump Trucks	2	40%	76	76	3	79	79	72	75	72	75
	Onsite Hauling Trucks	7	40%	76	76	8	84	84	72	80	72	80
	Offsite Hauling Trucks	6	40%	76	76	7	83	83	72	79	72	79
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**96**	**91**		**94**		**88**
Dike 4 Stripping, Excavation & Construction **(All Alt.)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Water Truck	1	40%	76	76	0	76	76	72	72	72	72
	Compactors	0	20%	83	80	0	0	0	0	0	0	0
	Excavators	1	40%	81	81	0	81	81	77	77	77	77
	Loaders	1	40%	79	79	0	79	79	75	75	75	75
	Compactors	1	20%	83	83	0	83	83	76	76	76	76
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Dump Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Onsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Offsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**95**	**90**		**94**		**87**
Main Concrete Dam Raise **(Alt. 2, 3, 4 & 5)**	Small Crane	1	16%	81	81	0	81	81	73	73	73	73
	Concrete Trucks	2	40%	79	79	3	82	82	75	78	75	78
	Dump Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**87**	**87**		**81**		**81**
Main Concrete Dam Tendons and Shears **(All Alts.)**	Drill Rigs	2	20%	84	74	3	87	77	77	80	67	70
	Dozers	0	40%	82	82	0	0	0	0	0	0	0
	Scrapers	2	40%	84	84	3	87	87	80	83	80	83
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Concrete Trucks	1	40%	79	79	0	79	79	75	75	75	75
	Dump Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Onsite Hauling Trucks	2	40%	76	76	3	79	79	72	75	72	75
	Offsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Pumps (Jet Grouting)	2	50%	81	77	3	84	80	78	81	74	77
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**93**	**91**		**88**		**87**
Folsom Point Area Borrow Area **(Alt. 5 only)**	Drill Rigs	0	20%	84	74	0	0	0	0	0	0	0
	Graders with Rippers	0	40%	85	85	0	0	0	0	0	0	0
	Scrapers	0	40%	84	84	0	0	0	0	0	0	0
	Loaders	0	40%	79	79	0	0	0	0	0	0	0
	Dump Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Blasting	0	1%	94	84	0	0	0	0	0	0	0
	Rock Crushing/Screening	0	80%	94	84	0	0	0	0	0	0	0
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**0**	**0**		**0**		**0**

Notes:

Dump trucks category represent quarry, articulated and belly dump trucks.

Number of round trucktrips per hour estimated were based on on- and off-site haul and concrete truck projections over an 18-hour construction day.
Yellow highlighted noise levels are based on the installation of either portable or stationary barriers capable of reducing noise levels by 10 dBA (See Readme file for barrier design information).

Sources:

U.S. Army Corps, Folsom Dam Raise and Auxiliary Spillway Alternative PASSII Draft Report, Feburary 2006.
FHWA, Roadway Construction Noise Model, January 2006.
P. Yastrow, Laku Landing Sound Level Analysis, April 1990.
CDM, 2006

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Alternative 4 - Construction Equipment for Each Construction Activity Noise Levels (dBA)

Construction Activities	Equipment types	Estimated Equipment Numbers Per Site	Usage Factor	Equipment L_{max} @ 50'	BACT L_{max} @ 50'	Add to Single Source Level (dBA)	Total Lmax @ 50'	BACT Total Lmax @ 50'	Equipment L_{eq} @ 50'	Total L_{eq} @ 50'	BACT L_{eq} @ 50'	BACT Total L_{eq} @ 50'
Auxiliary Spillway Borrow Development Period **(Alt. 1, 2, 3 & 4)**	Dozers	0	40%	82	82	0	0	0	0	0	0	0
	Excavators	0	40%	81	81	0	0	0	0	0	0	0
	Drill Rigs	2	20%	84	74	3	87	77	77	80	67	70
	Graders with Rippers	3	40%	85	85	5	90	90	81	86	81	86
	Scrapers	3	40%	84	84	5	89	89	80	85	80	85
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Dump Trucks	7	40%	76	76	8	84	84	72	80	72	80
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Blasting	2	1%	94	84	3	97	87	74	77	64	67
	Onsite Hauling Trucks	8	40%	76	76	9	85	85	72	81	72	81
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**100**	**95**		**95**		**91**
Auxiliary Spillway Construction **(Alt. 1, 2, 3 & 4)**	Dozers	2	40%	82	82	3	85	85	78	81	78	81
	Water Truck	1	40%	76	76	0	76	76	72	72	72	72
	Concrete Transit Mixers	0	20%	80	80	0	0	0	0	0	0	0
	Scrapers	0	40%	84	84	0	0	0	0	0	0	0
	Excavators	2	40%	81	81	3	84	84	77	80	77	80
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Small Crane	1	16%	81	81	0	81	81	73	73	73	73
	Compactors	2	20%	83	83	3	86	86	76	79	76	79
	Concrete Trucks	1	40%	79	79	1	80	80	75	76	75	76
	Dump Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Onsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Offsite Hauling Trucks	3	40%	76	76	5	81	81	72	77	72	77
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**96**	**93**		**94**		**89**
Tunnel Construction **(Alternative 2 only)**	Drill Rigs	0	20%	85	75	0	0	0	0	0	0	0
	Dozers	0	40%	82	82	0	0	0	0	0	0	0
	Excavators	0	40%	81	81	0	0	0	0	0	0	0
	Loaders	0	40%	79	79	0	0	0	0	0	0	0
	Small Crane	0	16%	81	81	0	0	0	0	0	0	0
	Compactors	0	20%	83	83	0	0	0	0	0	0	0
	Dump Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Blasting	0	1%	94	84	0	0	0	0	0	0	0
	Onsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Offsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Rock Crushing/Screening	0	80%	94	84	0	0	0	0	0	0	0
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**0**	**0**		**0**		**0**
RWD Stripping, Excavation & Construction **(All Alt.)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Water Truck	1	40%	76	76	0	76	76	72	72	72	72
	Excavators	2	40%	81	81	3	84	84	77	80	77	80
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Small Crane	1	16%	81	81	0	81	81	73	73	73	73
	Dump Trucks	10	40%	76	76	10	86	86	72	82	72	82
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Compactors	2	20%	83	83	3	86	86	76	79	76	79
	Onsite Hauling Trucks	7	40%	76	76	8	84	84	72	80	72	80
	Offsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**97**	**94**		**94**		**89**
LWD Stripping, Excavation & Construction **(All Alt.)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Water Truck	1	40%	76	76	0	76	76	72	72	72	72
	Compactor	0	20%	83	80	0	0	0	0	0	0	0
	Scrapers	2	40%	84	84	3	87	87	80	83	80	83
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Small Crane	1	16%	81	81	0	81	81	73	73	73	73
	Dump Trucks	6	40%	76	76	8	84	84	72	80	72	80
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	7	40%	76	76	8	84	84	72	80	72	80
	Offsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**96**	**93**		**94**		**89**

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Alternative 4 - Construction Equipment for Each Construction Activity Noise Levels (dBA)

Construction Activities	Equipment types	Estimated Equipment Numbers Per Site	Usage Factor	Equipment L_{max} @ 50'	BACT L_{max} @ 50'	Add to Single Source Level (dBA)	Total Lmax @ 50'	BACT Total Lmax @ 50'	Equipment L_{eq} @ 50'	Total L_{eq} @ 50'	BACT L_{eq} @ 50'	BACT Total L_{eq} @ 50'
Beals Point Borrow Development **(All Alt.)**	Drill Rigs	2	20%	84	74	3	87	77	77	80	67	70
	Graders with Rippers	2	40%	85	85	3	88	88	81	84	81	84
	Scrapers	2	40%	84	84	3	87	87	80	83	80	83
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Dump Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Blasting	2	1%	94	84	3	97	87	74	77	64	67
	Onsite Hauling Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**100**	**94**		**95**		**89**
Dike 5 & 6 Stripping, Excavation & Construction **(All Alts.)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Water Truck	1	40%	76	76	0	76	76	72	72	72	72
	Excavators	1	40%	81	81	0	81	81	77	77	77	77
	Loaders	1	40%	79	79	0	79	79	75	75	75	75
	Small Crane	1	16%	81	81	0	81	81	73	73	73	73
	Compactors	1	20%	83	83	0	83	83	76	76	76	76
	Dump Trucks	12	40%	76	76	11	87	87	72	83	72	83
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	12	40%	76	76	11	87	87	72	83	72	83
	Offsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**96**	**93**		**94**		**89**
Mooney Ridge Stripping, Excavation & Construction **(Alt. 2, 4 & 5)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Scrapers	2	40%	84	84	3	87	87	80	83	80	83
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Dump Trucks	3	40%	76	76	5	81	81	72	77	72	77
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	0	40%	84	84	0	0	0	0	0	0	0
	Offsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	0.1	15%	83	83	0	0	0	0	0	0	0
	Total						**95**	**91**		**94**		**88**
MIAD - Excavate & Replace Foundation **(All Alt.)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Water Truck	1	40%	76	76	0	76	76	72	72	72	72
	Grader with Rippers	0	40%	85	85	0	0	0	0	0	0	0
	Excavators	2	40%	81	81	3	84	84	77	80	77	80
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Compactors	1	20%	83	83	0	83	83	76	76	76	76
	Dump Trucks	5	40%	76	76	7	83	83	72	79	72	79
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	5	40%	76	76	7	83	83	72	79	72	79
	Offsite Hauling Trucks	2	40%	76	76	3	79	79	72	75	72	75
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**96**	**92**		**94**		**88**
MIAD - Shell & Raise Foundation **(Alt. 1, 3 & 4)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Graders with Rippers	2	40%	85	85	3	88	88	81	84	81	84
	Excavators	2	40%	81	81	3	84	84	77	80	77	80
	Loaders	5	40%	79	79	7	86	86	75	82	75	82
	Compactors	1	20%	83	83	0	83	83	76	76	76	76
	Dump Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Total						**93**	**93**		**88**		**88**
MIAD Jet Grouting **(Alt. 1, 3 & 4)**	Dozers	2	40%	82	82	3	85	85	78	81	78	81
	Graders with Rippers	1	40%	85	85	0	85	85	81	81	81	81
	Loaders	1	40%	79	79	0	79	79	75	75	75	75
	Dump Trucks	5	40%	76	76	7	83	83	72	79	72	79
	Drill Rigs	2	20%	85	75	3	88	78	78	81	68	71
	Pumps (Jet Grouting)	2	50%	77	77	3	80	80	74	77	74	77
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Offsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**92**	**90**		**87**		**86**

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Alternative 4 - Construction Equipment for Each Construction Activity Noise Levels (dBA)

Construction Activities	Equipment types	Estimated Equipment Numbers Per Site	Usage Factor	Equipment L_{max} @ 50'	BACT L_{max} @ 50'	Add to Single Source Level (dBA)	Total Lmax @ 50'	BACT Total Lmax @ 50'	Equipment L_{eq} @ 50'	Total L_{eq} @ 50'	BACT L_{eq} @ 50'	BACT Total L_{eq} @ 50'
Dike 7 & 8 Stripping, Excavation & Construction **(Alt. 2, 3, 4 & 5)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Water Truck	0	40%	76	76	0	0	0	0	0	0	0
	Excavators	1	40%	81	81	0	81	81	77	77	77	77
	Loaders	1	40%	79	79	0	79	79	75	75	75	75
	Compactors	1	20%	83	83	0	83	83	76	76	76	76
	Dump Trucks	2	40%	76	76	3	79	79	72	75	72	75
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	5	40%	76	76	7	83	83	72	79	72	79
	Offsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**95**	**91**		**94**		**87**
Granite Bay Borrow Development **(Alt. 2, 3, 4 & 5)**	Drill Rigs	1	20%	84	74	0	84	74	77	77	67	67
	Graders with Rippers	2	40%	85	85	3	88	88	81	84	81	84
	Scrapers	2	40%	84	84	3	87	87	80	83	80	83
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Dump Trucks	3	40%	84	84	5	89	89	80	85	80	85
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	3	40%	76	76	5	81	81	72	77	72	77
	Offsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Blasting	1	1%	94	84	0	94	84	74	74	64	64
	Rock Crushing/Screening	3	80%	94	84	5	99	89	93	98	83	88
	Total						**101**	**95**		**98**		**92**
Dike 1, 2 & 3 Stripping, Excavation & Construction **(Alt. 2, 3, 4 & 5)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Excavators	1	40%	81	81	0	81	81	77	77	77	77
	Loaders	1	40%	79	79	0	79	79	75	75	75	75
	Compactors	1	20%	83	83	0	83	83	76	76	76	76
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Dump Trucks	2	40%	76	76	3	79	79	72	75	72	75
	Onsite Hauling Trucks	6	40%	76	76	8	84	84	72	80	72	80
	Offsite Hauling Trucks	6	40%	76	76	7	83	83	72	79	72	79
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**96**	**91**		**94**		**88**
Dike 4 Stripping, Excavation & Construction **(All Alt.)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Water Truck	1	40%	76	76	0	76	76	72	72	72	72
	Compactors	0	20%	83	80	0	0	0	0	0	0	0
	Excavators	1	40%	81	81	0	81	81	77	77	77	77
	Loaders	1	40%	79	79	0	79	79	75	75	75	75
	Compactors	1	20%	83	83	0	83	83	76	76	76	76
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Dump Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Onsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Offsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**95**	**90**		**94**		**87**
Main Concrete Dam Raise **(Alt. 2, 3, 4 & 5)**	Small Crane	1	16%	81	81	0	81	81	73	73	73	73
	Concrete Trucks	2	40%	79	79	3	82	82	75	78	75	78
	Dump Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**87**	**87**		**81**		**81**
Main Concrete Dam Tendons and Shears **(All Alts.)**	Drill Rigs	2	20%	84	74	3	87	77	77	80	67	70
	Dozers	0	40%	82	82	0	0	0	0	0	0	0
	Scrapers	2	40%	84	84	3	87	87	80	83	80	83
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Concrete Trucks	1	40%	79	79	0	79	79	75	75	75	75
	Dump Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Onsite Hauling Trucks	2	40%	76	76	3	79	79	72	75	72	75
	Offsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Pumps (Jet Grouting)	2	50%	81	77	3	84	80	78	81	74	77
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**93**	**91**		**88**		**87**
Folsom Point Area Borrow Area **(Alt. 5 only)**	Drill Rigs	0	20%	84	74	0	0	0	0	0	0	0
	Graders with Rippers	0	40%	85	85	0	0	0	0	0	0	0
	Scrapers	0	40%	84	84	0	0	0	0	0	0	0
	Loaders	0	40%	79	79	0	0	0	0	0	0	0
	Dump Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Blasting	0	1%	94	84	0	0	0	0	0	0	0
	Rock Crushing/Screening	0	80%	94	84	0	0	0	0	0	0	0
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**0**	**0**		**0**		**0**

Notes:

Dump trucks category represent quarry, articulated and belly dump trucks.

Number of round trucktrips per hour estimated were based on on- and off-site haul and concrete truck projections over an 18-hour construction day.
Yellow highlighted noise levels are based on the installation of either portable or stationary barriers capable of reducing noise levels by 10 dBA (See Readme file for barrier design information).

Sources:

U.S. Army Corps, Folsom Dam Raise and Auxiliary Spillway Alternative PASSII Draft Report, Feburary 2006.
FHWA, Roadway Construction Noise Model, January 2006.
P. Yastrow, Laku Landing Sound Level Analysis, April 1990.
CDM, 2006

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Alternative 5 - Construction Equipment for Each Construction Activity Noise Levels (dBA)

Construction Activities	Equipment types	Estimated Equipment Numbers Per Site	Usage Factor	Equipment L_{max} @ 50'	BACT L_{max} @ 50'	Add to Single Source Level (dBA)	Total Lmax @ 50'	BACT Total Lmax @ 50'	Equipment L_{eq} @ 50'	Total L_{eq} @ 50'	BACT L_{eq} @ 50'	BACT Total L_{eq} @ 50'
Auxiliary Spillway Borrow Development Period **(Alt. 1, 2, 3 & 4)**	Dozers	0	40%	82	82	0	0	0	0	0	0	0
	Excavators	0	40%	81	81	0	0	0	0	0	0	0
	Drill Rigs	0	20%	84	74	0	0	0	0	0	0	0
	Graders with Rippers	0	40%	85	85	0	0	0	0	0	0	0
	Scrapers	0	40%	84	84	0	0	0	0	0	0	0
	Loaders	0	40%	79	79	0	0	0	0	0	0	0
	Dump Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Blasting	0	1%	94	84	0	0	0	0	0	0	0
	Onsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Rock Crushing/Screening	0	80%	94	84	0	0	0	0	0	0	0
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**0**	**0**		**0**		**0**
Auxiliary Spillway Construction **(Alt. 1, 2, 3 & 4)**	Dozers	0	40%	82	82	0	0	0	0	0	0	0
	Water Truck	0	40%	76	76	0	0	0	0	0	0	0
	Concrete Transit Mixers	0	20%	80	80	0	0	0	0	0	0	0
	Scrapers	0	40%	84	84	0	0	0	0	0	0	0
	Excavators	0	40%	81	81	0	0	0	0	0	0	0
	Loaders	0	40%	79	79	0	0	0	0	0	0	0
	Small Crane	0	16%	81	81	0	0	0	0	0	0	0
	Compactors	0	20%	83	83	0	0	0	0	0	0	0
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Dump Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Onsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Offsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Rock Crushing/Screening	0	80%	94	84	0	0	0	0	0	0	0
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**0**	**0**		**0**		**0**
Tunnel Construction **(Alternative 2 only)**	Drill Rigs	0	20%	85	75	0	0	0	0	0	0	0
	Dozers	0	40%	82	82	0	0	0	0	0	0	0
	Excavators	0	40%	81	81	0	0	0	0	0	0	0
	Loaders	0	40%	79	79	0	0	0	0	0	0	0
	Small Crane	0	16%	81	81	0	0	0	0	0	0	0
	Compactors	0	20%	83	83	0	0	0	0	0	0	0
	Dump Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Blasting	0	1%	94	84	0	0	0	0	0	0	0
	Onsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Offsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Rock Crushing/Screening	0	80%	94	84	0	0	0	0	0	0	0
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**0**	**0**		**0**		**0**
RWD Stripping, Excavation & Construction **(All Alt.)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Water Truck	1	40%	76	76	0	76	76	72	72	72	72
	Excavators	2	40%	81	81	3	84	84	77	80	77	80
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Small Crane	1	16%	81	81	0	81	81	73	73	73	73
	Dump Trucks	10	40%	76	76	10	86	86	72	82	72	82
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Compactors	2	20%	83	83	3	86	86	76	79	76	79
	Onsite Hauling Trucks	7	40%	76	76	8	84	84	72	80	72	80
	Offsite Hauling Trucks	2	40%	76	76	3	79	79	72	75	72	75
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**97**	**94**		**94**		**89**
LWD Stripping, Excavation & Construction **(All Alt.)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Water Truck	1	40%	76	76	0	76	76	72	72	72	72
	Compactor	0	20%	83	80	0	0	0	0	0	0	0
	Scrapers	2	40%	84	84	3	87	87	80	83	80	83
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Small Crane	1	16%	81	81	0	81	81	73	73	73	73
	Dump Trucks	6	40%	76	76	8	84	84	72	80	72	80
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	8	40%	76	76	9	85	85	72	81	72	81
	Offsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**96**	**93**		**94**		**89**

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Alternative 5 - Construction Equipment for Each Construction Activity Noise Levels (dBA)

Construction Activities	Equipment types	Estimated Equipment Numbers Per Site	Usage Factor	Equipment L_{max} @ 50'	BACT L_{max} @ 50'	Add to Single Source Level (dBA)	Total Lmax @ 50'	BACT Total Lmax @ 50'	Equipment L_{eq} @ 50'	Total L_{eq} @ 50'	BACT L_{eq} @ 50'	BACT Total L_{eq} @ 50'
Beals Point Borrow Development **(All Alt.)**	Drill Rigs	2	20%	84	74	3	87	77	77	80	67	70
	Graders with Rippers	2	40%	85	85	3	88	88	81	84	81	84
	Scrapers	2	40%	84	84	3	87	87	80	83	80	83
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Dump Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Blasting	2	1%	94	84	3	97	87	74	77	64	67
	Onsite Hauling Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**100**	**94**		**95**		**89**
Dike 5 & 6 Stripping, Excavation & Construction **(All Alts.)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Water Truck	1	40%	76	76	0	76	76	72	72	72	72
	Excavators	1	40%	81	81	0	81	81	77	77	77	77
	Loaders	1	40%	79	79	0	79	79	75	75	75	75
	Small Crane	1	16%	81	81	0	81	81	73	73	73	73
	Compactors	1	20%	83	83	0	83	83	76	76	76	76
	Dump Trucks	13	40%	76	76	11	87	87	72	83	72	83
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	13	40%	76	76	11	87	87	72	83	72	83
	Offsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**97**	**94**		**94**		**89**
Mooney Ridge Stripping, Excavation & Construction **(Alt. 2, 4 & 5)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Scrapers	2	40%	84	84	3	87	87	80	83	80	83
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Dump Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	4	40%	84	84	6	90	90	80	86	80	86
	Offsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**97**	**94**		**95**		**90**
MIAD - Excavate & Replace Foundation **(All Alt.)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Water Truck	1	40%	76	76	0	76	76	72	72	72	72
	Grader with Rippers	0	40%	85	85	0	0	0	0	0	0	0
	Excavators	2	40%	81	81	3	84	84	77	80	77	80
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Compactors	1	20%	83	83	0	83	83	76	76	76	76
	Dump Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Offsite Hauling Trucks	2	40%	76	76	3	79	79	72	75	72	75
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**96**	**92**		**94**		**88**
MIAD - Shell & Raise Foundation **(Alt. 1, 3 & 4)**	Dozers	0	40%	82	82	0	0	0	0	0	0	0
	Graders with Rippers	0	40%	85	85	0	0	0	0	0	0	0
	Excavators	0	40%	81	81	0	0	0	0	0	0	0
	Loaders	0	40%	79	79	0	0	0	0	0	0	0
	Compactors	0	20%	83	83	0	0	0	0	0	0	0
	Dump Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Total						**0**	**0**		**0**		**0**
MIAD Jet Grouting **(Alt. 1, 3 & 4)**	Dozers	0	40%	82	82	0	0	0	0	0	0	0
	Graders with Rippers	0	40%	85	85	0	0	0	0	0	0	0
	Loaders	0	40%	79	79	0	0	0	0	0	0	0
	Dump Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Drill Rigs	0	20%	85	75	0	0	0	0	0	0	0
	Pumps (Jet Grouting)	0	50%	77	77	0	0	0	0	0	0	0
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Offsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**0**	**0**		**0**		**0**

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Alternative 5 - Construction Equipment for Each Construction Activity Noise Levels (dBA)

Construction Activities	Equipment types	Estimated Equipment Numbers Per Site	Usage Factor	Equipment L_{max} @ 50'	BACT L_{max} @ 50'	Add to Single Source Level (dBA)	Total Lmax @ 50'	BACT Total Lmax @ 50'	Equipment L_{eq} @ 50'	Total L_{eq} @ 50'	BACT L_{eq} @ 50'	BACT Total L_{eq} @ 50'
Dike 7 & 8 Stripping, Excavation & Construction **(Alt. 2, 3, 4 & 5)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Water Truck	0	40%	76	76	0	0	0	0	0	0	0
	Excavators	1	40%	81	81	0	81	81	77	77	77	77
	Loaders	1	40%	79	79	0	79	79	75	75	75	75
	Compactors	1	20%	83	83	0	83	83	76	76	76	76
	Dump Trucks	2	40%	76	76	3	79	79	72	75	72	75
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	5	40%	76	76	7	83	83	72	79	72	79
	Offsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**95**	**91**		**94**		**87**
Granite Bay Borrow Development **(Alt. 2, 3, 4 & 5)**	Drill Rigs	1	20%	84	74	0	84	74	77	77	67	67
	Graders with Rippers	2	40%	85	85	3	88	88	81	84	81	84
	Scrapers	2	40%	84	84	3	87	87	80	83	80	83
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Dump Trucks	3	40%	84	84	5	89	89	80	85	80	85
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	3	40%	76	76	5	81	81	72	77	72	77
	Offsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Blasting	1	1%	94	84	0	94	84	74	74	64	64
	Rock Crushing/Screening	2	80%	94	84	3	97	87	93	96	83	86
	Total						**100**	**95**		**97**		**91**
Dike 1, 2 & 3 Stripping, Excavation & Construction **(Alt. 2, 3, 4 & 5)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Excavators	1	40%	81	81	0	81	81	77	77	77	77
	Loaders	1	40%	79	79	0	79	79	75	75	75	75
	Compactors	1	20%	83	83	0	83	83	76	76	76	76
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Dump Trucks	2	40%	76	76	3	79	79	72	75	72	75
	Onsite Hauling Trucks	8	40%	76	76	9	85	85	72	81	72	81
	Offsite Hauling Trucks	6	40%	76	76	7	83	83	72	79	72	79
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**96**	**92**		**94**		**88**
Dike 4 Stripping, Excavation & Construction **(All Alt.)**	Dozers	1	40%	82	82	0	82	82	78	78	78	78
	Water Truck	1	40%	76	76	0	76	76	72	72	72	72
	Compactors	0	20%	83	80	0	0	0	0	0	0	0
	Excavators	1	40%	81	81	0	81	81	77	77	77	77
	Loaders	1	40%	79	79	0	79	79	75	75	75	75
	Compactors	1	20%	83	83	0	83	83	76	76	76	76
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Dump Trucks	5	40%	76	76	7	83	83	72	79	72	79
	Onsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Offsite Hauling Trucks	0	40%	76	76	0	0	0	0	0	0	0
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	0	15%	83	83	0	0	0	0	0	0	0
	Total						**95**	**90**		**94**		**87**
Main Concrete Dam Raise **(Alt. 2, 3, 4 & 5)**	Small Crane	1	16%	81	81	0	81	81	73	73	73	73
	Concrete Trucks	2	40%	79	79	3	82	82	75	78	75	78
	Dump Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**87**	**87**		**81**		**81**
Main Concrete Dam Tendons and Shears **(All Alts.)**	Drill Rigs	2	20%	84	74	3	87	77	77	80	67	70
	Dozers	0	40%	82	82	0	0	0	0	0	0	0
	Scrapers	2	40%	84	84	3	87	87	80	83	80	83
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Concrete Trucks	1	40%	79	79	0	79	79	75	75	75	75
	Dump Trucks	4	40%	76	76	6	82	82	72	78	72	78
	Onsite Hauling Trucks	2	40%	76	76	3	79	79	72	75	72	75
	Offsite Hauling Trucks	1	40%	76	76	0	76	76	72	72	72	72
	Pumps (Jet Grouting)	2	50%	81	77	3	84	80	78	81	74	77
	Concrete Batch Plant	1	15%	83	83	0	83	83	75	75	75	75
	Total						**93**	**91**		**88**		**87**
Folsom Point Area Borrow Area **(Alt. 5 only)**	Drill Rigs	2	20%	84	74	3	87	77	77	80	67	70
	Graders with Rippers	2	40%	85	85	3	88	88	81	84	81	84
	Scrapers	2	40%	84	84	3	87	87	80	83	80	83
	Loaders	2	40%	79	79	3	82	82	75	78	75	78
	Dump Trucks	2	40%	76	76	3	79	79	72	75	72	75
	Concrete Trucks	0	40%	79	79	0	0	0	0	0	0	0
	Onsite Hauling Trucks	2	40%	76	76	3	79	79	72	75	72	75
	Blasting	2	1%	94	84	3	97	87	74	77	64	67
	Rock Crushing/Screening	1	80%	94	84	0	94	84	93	93	83	83
	Concrete Batch Plant	0.1	15%	83	83	0	0	0	0	0	0	0
	Total						**100**	**94**		**94**		**89**

Notes:

Dump trucks category represent quarry, articulated and belly dump trucks.

Number of round trucktrips per hour estimated were based on on- and off-site haul and concrete truck projections over an 18-hour construction day.

Yellow highlighted noise levels are based on the installation of either portable or stationary barriers capable of reducing noise levels by 10 dBA (See Readme file for barrier design information).

Sources:

U.S. Army Corps, Folsom Dam Raise and Auxiliary Spillway Alternative PASSII Draft Report, Feburary 2006.

FHWA, Roadway Construction Noise Model, January 2006.

P. Yastrow, Laku Landing Sound Level Analysis, April 1990.

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All Alternatives - Summary of Construction Activity Noise Levels (dBA)

	Alternative 1				Alternative 2				Alternative 3				Alternative 4				Alternative 5			
Construction Activities	**Total Lmax @ 50'**	**BACT Total Lmax @ 50'**	**Total L_{eq} @ 50'**	**BACT Total L_{eq} @ 50'**	**Total Lmax @ 50'**	**BACT Total Lmax @ 50'**	**Total L_{eq} @ 50'**	**BACT Total L_{eq} @ 50'**	**Total Lmax @ 50'**	**BACT Total Lmax @ 50'**	**Total L_{eq} @ 50'**	**BACT Total L_{eq} @ 50'**	**Total Lmax @ 50'**	**BACT Total Lmax @ 50'**	**Total L_{eq} @ 50'**	**BACT Total L_{eq} @ 50'**	**Total Lmax @ 50'**	**BACT Total Lmax @ 50'**	**Total L_{eq} @ 50'**	**BACT Total L_{eq} @ 50'**
Auxiliary Spillway Borrow Development Period **(Alt. 1, 2, 3 & 4)**	101	97	96	93	100	95	95	91	100	95	95	91	100	95	95	91	0	0	0	0
Auxiliary Spillway Construction **(Alt. 1, 2, 3 & 4)**	98	96	95	92	96	93	94	89	96	93	94	89	96	93	94	89	0	0	0	0
Tunnel Construction **(Alternative 2 only)**	0	0	0	0	98	94	94	89	0	0	0	0	0	0	0	0	0	0	0	0
RWD Stripping, Excavation & Construction **(All Alt.)**	96	93	94	89	97	94	94	90	97	94	94	90	97	94	94	89	97	94	94	89
LWD Stripping, Excavation & Construction **(All Alt.)**	96	93	0	94	96	93	94	89	96	93	94	89	96	93	94	89	96	93	94	89
Beals Point Borrow Development **(All Alt.)**	100	94	95	89	100	94	95	89	100	94	95	89	100	94	95	89	100	94	95	89
Dike 5 & 6 Stripping, Excavation & Construction **(All Alts.)**	96	93	94	89	96	93	94	89	96	93	94	89	96	93	94	89	97	94	94	89
Mooney Ridge Stripping, Excavation & Construction **(Alt. 2, 4 & 5)**	0	0	0	0	96	93	94	90	0	0	0	0	95	91	94	88	97	94	95	90
MIAD - Stripping, Excavation & Construction **(All Alt.)**	96	91	94	88	96	92	94	88	96	92	94	88	96	92	94	88	96	92	94	88
MIAD - Shell & Raise Foundation **(Alt. 1, 3 & 4)**	93	93	88	88	0	0	0	0	93	93	88	88	93	93	88	88	0	0	0	0
MIAD Jet Grouting **(Alt. 1, 3 & 4)**	92	90	87	86	0	0	0	0	92	90	87	86	92	90	87	86	0	0	0	0
Dike 7 & 8 Stripping, Excavation & Construction **(Alt. 2, 3, 4 & 5)**	0	0	0	0	95	91	94	87	95	91	94	87	95	91	94	87	95	91	94	87
Granite Bay Borrow Development **(Alt. 2, 3, 4 & 5)**	0	0	0	0	100	94	97	91	100	94	97	91	101	95	98	92	100	95	97	91
Dike 1, 2 & 3 Stripping, Excavation & Construction **(Alt. 2, 3, 4 & 5)**	0	0	0	0	96	91	94	88	96	91	94	88	96	91	94	88	96	92	94	88
Dike 4 Stripping, Excavation & Construction **(All Alt.)**	96	92	94	88	95	90	94	87	95	90	94	87	95	90	94	87	95	90	94	87
Main Concrete Dam Raise **(Alt. 2, 3, 4 & 5)**	0	0	0	0	87	87	81	81	87	87	81	81	87	87	81	81	87	87	81	81
Main Concrete Dam Tendons and Shears **(All Alts.)**	91	90	87	86	93	91	88	87	93	91	88	87	93	91	88	87	93	91	88	87
Folsom Point Area Borrow Area **(Alt. 5 only)**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	94	94	89

Attachment 2

Traffic Noise Impact Analysis

TNM CALIBRATION MODEL RUNS

				OBSERVED VEHICLES PER HOUR PER DIRECTION								Calibration			
Sensitive Noise Receiver	**Local Roadway**	**Description**	**Source of data for comparison**	**Cars**	**Medium Trucks**	**Heavy Trucks**	**Buses**	**Motorcycles**	**Speed (mph)**	**Lanes**	**Receiver Distance**	**Monitored L_{eq} (dBA)**	**Modeled Leq (dBA)**	**CDM Modeled L_{eq} (dBA)**	**Adjustment factor**
1	Folsom-Auburn Road	Folsom-Auburn Road, south of Folsom Dam Road	Monitored Leq from Folsom Dam Road EIS - traffic data is both ways	714	26	-	-	-	50	4 lanes divided	70 feet	71	68	67.5	3.5
3	Folsom-Auburn Road	7013 Folsom-Auburn Road is in a residential area along the south bound lanes in Folsom	Monitored Leq from Folsom Dam Road EIS - traffic data is both ways	1,036	12	2	-	-	50	4 lanes divided	70 feet	69	69	68.7	0.3

2006 EXISTING CONDITIONS
Traffic Inputs for TNM Modeling

Sensitive Noise Receiver	Local Roadway	Description	2006 Total ADT	2006 One direction ADT	2006 PM Peak Hour	Cars: Hourly Volumes		Medium Trucks: Hourly Volumes		Heavy Trucks: Hourly Volumes		Buses: Hourly Volumes		Motorcycles: Hourly Volumes		Speed (mph)	Lanes and Medians	Distance to Receiver (feet)
1	East Bidwell Street	Along Albrighton Drive, residential area adjacent to south bound lanes in Folsom	**36,371**	18,186	1,819	PM Peak	1,777	PM Peak	13	PM Peak	17	PM Peak	0	PM Peak	3	52	5 lanes divided: 3 south, 2 north, tree-lined median	40
			Inputs for calculating Ldn:		**3 south bound lanes**	DAY 82%	1,748	DAY 82%	12	DAY 82%	16	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	384	NIGHT 18%	3	NIGHT 18%	4	NIGHT 18%	0	NIGHT 18%	1			
					2 north bound lanes	DAY 82%	1,166	DAY 82%	8	DAY 82%	11	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	256	NIGHT 18%	2	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
2	Oak Avenue Parkway	Along Thorndike Way, residential area adjacent to north bound lanes in Folsom	**18,586**	9,293	929	PM Peak	908	PM Peak	6	PM Peak	8	PM Peak	0	PM Peak	2	52	6 lanes divided, tree-lined median	50
			Inputs for calculating Ldn:			DAY 82%	744	DAY 82%	5	DAY 82%	7	DAY 82%	0	DAY 82%	1			
						NIGHT 18%	163	NIGHT 18%	1	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
3	Green Valley Road	Parking lot adjacent to residential area along Kipps Lane, north of Green Valley Road in El Dorado Hills, El Dorado County	**26,681**	13,341	1,334	PM Peak	1,303	PM Peak	9	PM Peak	12	PM Peak	0	PM Peak	2	52	2 lanes undivided	50
			Inputs for calculating Ldn:			DAY 82%	1,069	DAY 82%	8	DAY 82%	10	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	235	NIGHT 18%	2	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
4	East Natoma Road	End of Pomine Court, residential area along east bound lanes in Folsom	**18,054**	9,027	903	PM Peak	882	PM Peak	6	PM Peak	8	PM Peak	0	PM Peak	2	42	3 lanes undivided: 2 east bound, 1 west bound	60
			Inputs for calculating Ldn:		**2 east bound lanes**	DAY 82%	964	DAY 82%	7	DAY 82%	9	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	212	NIGHT 18%	1	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
					1 west bound lane	DAY 82%	482	DAY 82%	3	DAY 82%	4	DAY 82%	0	DAY 82%	1			
						NIGHT 18%	106	NIGHT 18%	1	NIGHT 18%	1	NIGHT 18%	0	NIGHT 18%	0			
5	Folsom-Auburn Road	7550 Folsom-Auburn Road is in a residential area along the south bound lanes in Folsom	**32,292**	16,146	1,615	PM Peak	1,577	PM Peak	11	PM Peak	15	PM Peak	0	PM Peak	3	55	4 lanes divided, paved median	50
			Inputs for calculating Ldn:			DAY 82%	1,294	DAY 82%	9	DAY 82%	12	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	284	NIGHT 18%	2	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
6	Blue Ravine Road	Blackberry Circle, residential area along north bound lanes in Folsom	**19,122**	9,561	956	PM Peak	934	PM Peak	7	PM Peak	9	PM Peak	0	PM Peak	2	52	6 lanes divided, including 2 turning lanes, tree-lined median	50
			Inputs for calculating Ldn:			DAY 82%	766	DAY 82%	5	DAY 82%	7	DAY 82%	0	DAY 82%	1			
						NIGHT 18%	168	NIGHT 18%	1	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
7	Sierra College Boulevard	End of Kilmartin Court, residential street adjacent to south bound lanes in Rocklin, Placer County	**24,548**	12,274	1,227	PM Peak	1,199	PM Peak	8	PM Peak	11	PM Peak	0	PM Peak	2	52	3 lanes divided (1 northbound)	70
			Inputs for calculating Ldn:			DAY 82%	983	DAY 82%	7	DAY 82%	9	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	216	NIGHT 18%	2	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
8	Douglas Boulevard	4600-4699 Rolling Oaks Drive, residential area adjacent to west bound lanes in Granite Bay, Placer County	**37,452**	18,726	1,873	PM Peak	1,830	PM Peak	13	PM Peak	17	PM Peak	0	PM Peak	3	52	4 lanes divided, tree-lined median	40
			Inputs for calculating Ldn:			DAY 82%	1,500	DAY 82%	11	DAY 82%	14	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	329	NIGHT 18%	2	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
9	Eureka Road	1445 Eureka Road, multi-family residential development (225 units) on north bound lanes in Roseville, Placer County	**37,773**	18,887	1,889	PM Peak	1,845	PM Peak	13	PM Peak	17	PM Peak	0	PM Peak	3	52	6 lanes divided with bike lanes, shrub-lined median	50
			Inputs for calculating Ldn:			DAY 82%	1,513	DAY 82%	11	DAY 82%	14	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	332	NIGHT 18%	2	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			

2006 EXISTING CONDITIONS
Ldn Noise Levels

Sensitive Noise Receiver Number	Local Roadway	Description	50 ft Daytime (Leq)	50 ft Night (Leq)	50 ft Ldn
1	East Bidwell Street	Along Albrighton Drive, residential area adjacent to south bound lanes in Folsom	72.5	66	**74.2**
2	Oak Avenue Parkway	Along Thorndike Way, residential area adjacent to north bound lanes in Folsom	68.9	62.4	**70.6**
3	Green Valley Road	Parking lot adjacent to residential area along Kipps Lane, north of Green Valley Road in El Dorado Hills, El Dorado County	71.6	65	**73.2**
4	East Natoma Road	End of Pomine Court, residential area along east bound lanes in Folsom	66.8	60.2	**68.4**
5	Folsom-Auburn Road	7550 Folsom-Auburn Road is in a residential area along the south bound lanes in Folsom	72.5	66	**74.2**
6	Blue Ravine Road	Blackberry Circle, residential area along north bound lanes in Folsom	69.3	62.7	**70.9**
7	Sierra College Boulevard	End of Kilmartin Court, residential street adjacent to south bound lanes in Rocklin, Placer County	70.6	64	**72.2**
8	Douglas Boulevard	4600-4699 Rolling Oaks Drive, residential area adjacent to west bound lanes in Granite Bay, Placer County	72.5	65.9	**74.1**
9	Eureka Road	1445 Eureka Road, multi-family residential development (225 units) on north bound lanes in Roseville, Placer County	72.4	65.8	**74.0**

2009 NO ACTION/NO PROJECT
Traffic Inputs for TNM Modeling

Sensitive Noise Receiver	Local Roadway	Description	2009 Total ADT	2009 One direction ADT	2009 PM Peak Hour	Cars: Hourly Volumes		Medium Trucks: Hourly Volumes		Heavy Trucks: Hourly Volumes		Buses: Hourly Volumes		Motorcycles: Hourly Volumes		Speed (mph)	Lanes and Medians	Distance to Receiver (feet)
1	East Bidwell Street	Along Albrighton Drive, residential area adjacent to south bound lanes in Folsom	41,694	20,847	2,085	PM Peak	2,037	PM Peak	14	PM Peak	19	PM Peak	0	PM Peak	4	52	5 lanes divided: 3 south, 2 north, tree-lined median	40
			Inputs for calculating Ldn:		3 south bound lanes	DAY 82%	2,004	DAY 82%	14	DAY 82%	19	DAY 82%	0	DAY 82%	4			
						NIGHT 18%	440	NIGHT 18%	3	NIGHT 18%	4	NIGHT 18%	0	NIGHT 18%	1			
					2 north bound lanes	DAY 82%	1,336	DAY 82%	9	DAY 82%	12	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	293	NIGHT 18%	2	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
2	Oak Avenue Parkway	Along Thorndike Way, residential area adjacent to north bound lanes in Folsom	23,552	11,776	1,178	PM Peak	1,151	PM Peak	8	PM Peak	11	PM Peak	0	PM Peak	2	52	6 lanes divided, tree-lined median	50
			Inputs for calculating Ldn:			DAY 82%	943	DAY 82%	7	DAY 82%	9	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	207	NIGHT 18%	1	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
3	Green Valley Road	Parking lot adjacent to residential area along Kipps Lane, north of Green Valley Road in El Dorado Hills, El Dorado County	33,949	16,975	1,697	PM Peak	1,658	PM Peak	12	PM Peak	15	PM Peak	0	PM Peak	3	52	2 lanes undivided	50
			Inputs for calculating Ldn:			DAY 82%	1,360	DAY 82%	10	DAY 82%	13	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	299	NIGHT 18%	2	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
4	East Natoma Road	End of Pomine Court, residential area along east bound lanes in Folsom	28,751	14,376	1,438	PM Peak	1,404	PM Peak	10	PM Peak	13	PM Peak	0	PM Peak	3	42	3 lanes undivided: 2 east bound, 1 west bound	60
			Inputs for calculating Ldn:		2 east bound lanes	DAY 82%	1,536	DAY 82%	11	DAY 82%	14	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	337	NIGHT 18%	2	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
					1 west bound lane	DAY 82%	768	DAY 82%	5	DAY 82%	7	DAY 82%	0	DAY 82%	1			
						NIGHT 18%	169	NIGHT 18%	1	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
5	Folsom-Auburn Road	7550 Folsom-Auburn Road is in a residential area along the south bound lanes in Folsom	42,755	21,378	2,138	PM Peak	2,089	PM Peak	15	PM Peak	19	PM Peak	0	PM Peak	4	55	4 lanes divided, paved median	50
			Inputs for calculating Ldn:			DAY 82%	1,713	DAY 82%	12	DAY 82%	16	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	376	NIGHT 18%	3	NIGHT 18%	4	NIGHT 18%	0	NIGHT 18%	1			
6	Blue Ravine Road	Blackberry Circle, residential area along north bound lanes in Folsom	20,688	10,344	1,034	PM Peak	1,011	PM Peak	7	PM Peak	9	PM Peak	0	PM Peak	2	52	6 lanes divided, including 2 turning lanes, tree-lined median	50
			Inputs for calculating Ldn:			DAY 82%	829	DAY 82%	6	DAY 82%	8	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	182	NIGHT 18%	1	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
7	Sierra College Boulevard	End of Kilmartin Court, residential street adjacent to south bound lanes in Rocklin, Placer County	26,827	13,414	1,341	PM Peak	1,310	PM Peak	9	PM Peak	12	PM Peak	0	PM Peak	2	52	3 lanes divided (1 northbound)	70
			Inputs for calculating Ldn:			DAY 82%	1,075	DAY 82%	8	DAY 82%	10	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	236	NIGHT 18%	2	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
8	Douglas Boulevard	4600-4699 Rolling Oaks Drive, residential area adjacent to west bound lanes in Granite Bay, Placer County	42,649	21,325	2,132	PM Peak	2,083	PM Peak	15	PM Peak	19	PM Peak	0	PM Peak	4	52	4 lanes divided, tree-lined median	40
			Inputs for calculating Ldn:			DAY 82%	1,708	DAY 82%	12	DAY 82%	16	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	375	NIGHT 18%	3	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
9	Eureka Road	1445 Eureka Road, multi-family residential development (225 units) on north bound lanes in Roseville, Placer County	41,279	20,640	2,064	PM Peak	2,016	PM Peak	14	PM Peak	19	PM Peak	0	PM Peak	4	52	6 lanes divided with bike lanes, shrub-lined median	50
			Inputs for calculating Ldn:			DAY 82%	1,654	DAY 82%	12	DAY 82%	15	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	363	NIGHT 18%	3	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			

2009 NO ACTION/NO PROJECT
Ldn Noise Levels

Sensitive Noise Receiver Number	Local Roadway	Description	50 ft Daytime (Leq)	50 ft Night (Leq)	50 ft Ldn
1	East Bidwell Street	Along Albrighton Drive, residential area adjacent to south bound lanes in Folsom	73.1	66.5	**74.7**
2	Oak Avenue Parkway	Along Thorndike Way, residential area adjacent to north bound lanes in Folsom	70	63.3	**71.5**
3	Green Valley Road	Parking lot adjacent to residential area along Kipps Lane, north of Green Valley Road in El Dorado Hills, El Dorado County	72.7	66.1	**74.3**
4	East Natoma Road	End of Pomine Court, residential area along east bound lanes in Folsom	68.9	62.3	**70.5**
5	Folsom-Auburn Road	7550 Folsom-Auburn Road is in a residential area along the south bound lanes in Folsom	73.8	67.3	**75.5**
6	Blue Ravine Road	Blackberry Circle, residential area along north bound lanes in Folsom	69.7	63	**71.2**
7	Sierra College Boulevard	End of Kilmartin Court, residential street adjacent to south bound lanes in Rocklin, Placer County	71	64.3	**72.5**
8	Douglas Boulevard	4600-4699 Rolling Oaks Drive, residential area adjacent to west bound lanes in Granite Bay, Placer County	73	66.4	**74.6**
9	Eureka Road	1445 Eureka Road, multi-family residential development (225 units) on north bound lanes in Roseville, Placer County	72.7	66.2	**74.4**

2013 NO ACTION/NO PROJECT
Traffic Inputs for TNM Modeling

Sensitive Noise Receiver	Local Roadway	Description	2013 Total ADT	2013 One direction ADT	2013 PM Peak Hour	Cars: Hourly Volumes		Medium Trucks: Hourly Volumes		Heavy Trucks: Hourly Volumes		Buses: Hourly Volumes		Motorcycles: Hourly Volumes		Speed (mph)	Lanes and Medians	Distance to Receiver (feet)
1	East Bidwell Street	Along Albrighton Drive, residential area adjacent to south bound lanes in Folsom	**45,132**	22,566	2,257	PM Peak	2,205	PM Peak	16	PM Peak	21	PM Peak	0	PM Peak	4	52	5 lanes divided: 3 south, 2 north, tree-lined median	40
			Inputs for calculating Ldn:		**3 south bound lanes**	DAY 82%	2,169	DAY 82%	15	DAY 82%	20	DAY 82%	0	DAY 82%	4			
						NIGHT 18%	476	NIGHT 18%	3	NIGHT 18%	4	NIGHT 18%	0	NIGHT 18%	1			
					2 north bound lanes	DAY 82%	1,446	DAY 82%	10	DAY 82%	13	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	317	NIGHT 18%	2	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
2	Oak Avenue Parkway	Along Thorndike Way, residential area adjacent to north bound lanes in Folsom	**25,496**	12,748	1,275	PM Peak	1,245	PM Peak	9	PM Peak	12	PM Peak	0	PM Peak	2	52	6 lanes divided, tree-lined median	50
			Inputs for calculating Ldn:			DAY 82%	1,021	DAY 82%	7	DAY 82%	10	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	224	NIGHT 18%	2	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
3	Green Valley Road	Parking lot adjacent to residential area along Kipps Lane, north of Green Valley Road in El Dorado Hills, El Dorado County	**36,749**	18,375	1,837	PM Peak	1,795	PM Peak	13	PM Peak	17	PM Peak	0	PM Peak	3	52	2 lanes undivided	50
			Inputs for calculating Ldn:			DAY 82%	1,472	DAY 82%	10	DAY 82%	14	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	323	NIGHT 18%	2	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
4	East Natoma Road	End of Pomine Court, residential area along east bound lanes in Folsom	**31,124**	15,562	1,556	PM Peak	1,520	PM Peak	11	PM Peak	14	PM Peak	0	PM Peak	3	42	3 lanes undivided: 2 east bound, 1 west bound	60
			Inputs for calculating Ldn:		**2 east bound lanes**	DAY 82%	1,662	DAY 82%	12	DAY 82%	15	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	365	NIGHT 18%	3	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
					1 west bound lane	DAY 82%	831	DAY 82%	6	DAY 82%	8	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	182	NIGHT 18%	1	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
5	Folsom-Auburn Road	7550 Folsom-Auburn Road is in a residential area along the south bound lanes in Folsom	**46,282**	23,141	2,314	PM Peak	2,261	PM Peak	16	PM Peak	21	PM Peak	0	PM Peak	4	55	4 lanes divided, paved median	50
			Inputs for calculating Ldn:			DAY 82%	1,854	DAY 82%	13	DAY 82%	17	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	407	NIGHT 18%	3	NIGHT 18%	4	NIGHT 18%	0	NIGHT 18%	1			
6	Blue Ravine Road	Blackberry Circle, residential area along north bound lanes in Folsom	**22,396**	11,198	1,120	PM Peak	1,094	PM Peak	8	PM Peak	10	PM Peak	0	PM Peak	2	52	6 lanes divided, including 2 turning lanes, tree-lined median	50
			Inputs for calculating Ldn:			DAY 82%	897	DAY 82%	6	DAY 82%	8	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	197	NIGHT 18%	1	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
7	Sierra College Boulevard	End of Kilmartin Court, residential street adjacent to south bound lanes in Rocklin, Placer County	**29,041**	14,521	1,452	PM Peak	1,419	PM Peak	10	PM Peak	13	PM Peak	0	PM Peak	3	52	3 lanes divided (1 northbound)	70
			Inputs for calculating Ldn:			DAY 82%	1,163	DAY 82%	8	DAY 82%	11	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	255	NIGHT 18%	2	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
8	Douglas Boulevard	4600-4699 Rolling Oaks Drive, residential area adjacent to west bound lanes in Granite Bay, Placer County	**46,167**	23,084	2,308	PM Peak	2,255	PM Peak	16	PM Peak	21	PM Peak	0	PM Peak	4	52	4 lanes divided, tree-lined median	40
			Inputs for calculating Ldn:			DAY 82%	1,849	DAY 82%	13	DAY 82%	17	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	406	NIGHT 18%	3	NIGHT 18%	4	NIGHT 18%	0	NIGHT 18%	1			
9	Eureka Road	1445 Eureka Road, multi-family residential development (225 units) on north bound lanes in Roseville, Placer County	**44,684**	22,342	2,234	PM Peak	2,183	PM Peak	15	PM Peak	20	PM Peak	0	PM Peak	4	52	6 lanes divided with bike lanes, shrub-lined median	50
			Inputs for calculating Ldn:			DAY 82%	1,790	DAY 82%	13	DAY 82%	17	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	393	NIGHT 18%	3	NIGHT 18%	4	NIGHT 18%	0	NIGHT 18%	1			

2013 NO ACTION/NO PROJECT
Ldn Noise Levels

Sensitive Noise Receiver Number	Local Roadway	Description	50 ft Daytime (Leq)	50 ft Night (Leq)	50 ft Ldn
1	East Bidwell Street	Along Albrighton Drive, residential area adjacent to south bound lanes in Folsom	73.4	66.8	**75.0**
2	Oak Avenue Parkway	Along Thorndike Way, residential area adjacent to north bound lanes in Folsom	70.3	63.7	**71.9**
3	Green Valley Road	Parking lot adjacent to residential area along Kipps Lane, north of Green Valley Road in El Dorado Hills, El Dorado County	73	66.4	**74.6**
4	East Natoma Road	End of Pomine Court, residential area along east bound lanes in Folsom	69.2	62.6	**70.8**
5	Folsom-Auburn Road	7550 Folsom-Auburn Road is in a residential area along the south bound lanes in Folsom	74.1	67.6	**75.8**
6	Blue Ravine Road	Blackberry Circle, residential area along north bound lanes in Folsom	70	63.4	**71.6**
7	Sierra College Boulevard	End of Kilmartin Court, residential street adjacent to south bound lanes in Rocklin, Placer County	71.3	64.6	**72.8**
8	Douglas Boulevard	4600-4699 Rolling Oaks Drive, residential area adjacent to west bound lanes in Granite Bay, Placer County	73.3	66.8	**75.0**
9	Eureka Road	1445 Eureka Road, multi-family residential development (225 units) on north bound lanes in Roseville, Placer County	73.1	66.5	**74.7**

ALTERNATIVE 1 TRAFFIC INPUTS: 2009
Traffic Inputs for TNM Modeling

Sensitive Noise Receiver	Local Roadway	Description	2009 Total ADT	2009 One direction ADT	2009 PM Peak Hour	Cars: Hourly Volumes		Medium Trucks: Hourly Volumes		Heavy Trucks: Hourly Volumes		Buses: Hourly Volumes		Motorcycles: Hourly Volumes		Speed (mph)	Lanes and Medians	Distance to Receiver (feet)
1	East Bidwell Street	Along Albrighton Drive, residential area adjacent to south bound lanes in Folsom	41,694	20,847	2,085	PM Peak	2,037	PM Peak	14	PM Peak	19	PM Peak	0	PM Peak	4	52	5 lanes divided: 3 south, 2 north, tree-lined median	40
			Inputs for calculating Ldn:		3 south bound lanes	DAY 82%	2,004	DAY 82%	14	DAY 82%	70	DAY 82%	0	DAY 82%	4			
						NIGHT 18%	440	NIGHT 18%	3	NIGHT 18%	4	NIGHT 18%	0	NIGHT 18%	1			
					2 north bound lanes	DAY 82%	1,336	DAY 82%	9	DAY 82%	63	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	293	NIGHT 18%	2	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
2	Oak Avenue Parkway	Along Thorndike Way, residential area adjacent to north bound lanes in Folsom	23,552	11,776	1,178	PM Peak	1,151	PM Peak	8	PM Peak	11	PM Peak	0	PM Peak	2	52	6 lanes divided, tree-lined median	50
			Inputs for calculating Ldn:			DAY 82%	948	DAY 82%	7	DAY 82%	9	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	212	NIGHT 18%	1	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
3	Green Valley Road	Parking lot adjacent to residential area along Kipps Lane, north of Green Valley Road in El Dorado Hills, El Dorado County	33,949	16,975	1,697	PM Peak	1,658	PM Peak	12	PM Peak	15	PM Peak	0	PM Peak	3	52	2 lanes undivided	50
			Inputs for calculating Ldn:			DAY 82%	1,370	DAY 82%	10	DAY 82%	64	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	309	NIGHT 18%	2	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
4	East Natoma Road	End of Pomine Court, residential area along east bound lanes in Folsom	28,751	14,376	1,438	PM Peak	1,404	PM Peak	10	PM Peak	13	PM Peak	0	PM Peak	3	42	3 lanes undivided: 2 east bound, 1 west bound	60
			Inputs for calculating Ldn:		2 east bound lanes	DAY 82%	1,685	DAY 82%	11	DAY 82%	34	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	486	NIGHT 18%	2	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
					1 west bound lane	DAY 82%	917	DAY 82%	5	DAY 82%	27	DAY 82%	0	DAY 82%	1			
						NIGHT 18%	318	NIGHT 18%	1	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
5	Folsom-Auburn Road	7550 Folsom-Auburn Road is in a residential area along the south bound lanes in Folsom	42,755	21,378	2,138	PM Peak	2,089	PM Peak	15	PM Peak	19	PM Peak	0	PM Peak	4	55	4 lanes divided, paved median	50
			Inputs for calculating Ldn:			DAY 82%	1,762	DAY 82%	12	DAY 82%	16	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	425	NIGHT 18%	3	NIGHT 18%	4	NIGHT 18%	0	NIGHT 18%	1			
6	Blue Ravine Road	Blackberry Circle, residential area along north bound lanes in Folsom	20,688	10,344	1,034	PM Peak	1,011	PM Peak	7	PM Peak	9	PM Peak	0	PM Peak	2	52	6 lanes divided, including 2 turning lanes, tree-lined median	50
			Inputs for calculating Ldn:			DAY 82%	834	DAY 82%	6	DAY 82%	28	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	187	NIGHT 18%	1	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
7	Sierra College Boulevard	End of Kilmartin Court, residential street adjacent to south bound lanes in Rocklin, Placer County	26,827	13,414	1,341	PM Peak	1,310	PM Peak	9	PM Peak	12	PM Peak	0	PM Peak	2	52	3 lanes divided (1 northbound)	70
			Inputs for calculating Ldn:			DAY 82%	1,087	DAY 82%	8	DAY 82%	10	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	248	NIGHT 18%	2	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
8	Douglas Boulevard	4600-4699 Rolling Oaks Drive, residential area adjacent to west bound lanes in Granite Bay, Placer County	42,649	21,325	2,132	PM Peak	2,083	PM Peak	15	PM Peak	19	PM Peak	0	PM Peak	4	52	4 lanes divided, tree-lined median	40
			Inputs for calculating Ldn:			DAY 82%	1,740	DAY 82%	12	DAY 82%	19	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	407	NIGHT 18%	3	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
9	Eureka Road	1445 Eureka Road, multi-family residential development (225 units) on north bound lanes in Roseville, Placer County	41,279	20,640	2,064	PM Peak	2,016	PM Peak	14	PM Peak	19	PM Peak	0	PM Peak	4	52	6 lanes divided with bike lanes, shrub-lined median	50
			Inputs for calculating Ldn:			DAY 82%	1,654	DAY 82%	12	DAY 82%	18	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	363	NIGHT 18%	3	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			

ALTERNATIVE 2 TRAFFIC INPUTS: 2009
Traffic Inputs for TNM Modeling

Sensitive Noise Receiver	Local Roadway	Description	2009 Total ADT	2009 One direction ADT	2009 PM Peak Hour	Cars: Hourly Volumes		Medium Trucks: Hourly Volumes		Heavy Trucks: Hourly Volumes		Buses: Hourly Volumes		Motorcycles: Hourly Volumes		Speed (mph)	Lanes and Medians	Distance to Receiver (feet)
1	East Bidwell Street	Along Albrighton Drive, residential area adjacent to south bound lanes in Folsom	**41,694**	20,847	2,085	PM Peak	2,037	PM Peak	14	PM Peak	19	PM Peak	0	PM Peak	4	52	5 lanes divided: 3 south, 2 north, tree-lined median	40
			Inputs for calculating Ldn:		**3 south bound lanes**	DAY 82%	2,004	DAY 82%	14	DAY 82%	70	DAY 82%	0	DAY 82%	4			
						NIGHT 18%	440	NIGHT 18%	3	NIGHT 18%	4	NIGHT 18%	0	NIGHT 18%	1			
					2 north bound lanes	DAY 82%	1,336	DAY 82%	9	DAY 82%	63	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	293	NIGHT 18%	2	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
2	Oak Avenue Parkway	Along Thorndike Way, residential area adjacent to north bound lanes in Folsom	**23,552**	11,776	1,178	PM Peak	1,151	PM Peak	8	PM Peak	11	PM Peak	0	PM Peak	2	52	6 lanes divided, tree-lined median	50
			Inputs for calculating Ldn:			DAY 82%	948	DAY 82%	7	DAY 82%	9	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	212	NIGHT 18%	1	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
3	Green Valley Road	Parking lot adjacent to residential area along Kipps Lane, north of Green Valley Road in El Dorado Hills, El Dorado County	**33,949**	16,975	1,697	PM Peak	1,658	PM Peak	12	PM Peak	15	PM Peak	0	PM Peak	3	52	2 lanes undivided	50
			Inputs for calculating Ldn:			DAY 82%	1,391	DAY 82%	10	DAY 82%	18	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	330	NIGHT 18%	2	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
4	East Natoma Road	End of Pomine Court, residential area along east bound lanes in Folsom	**28,751**	14,376	1,438	PM Peak	1,404	PM Peak	10	PM Peak	13	PM Peak	0	PM Peak	3	42	3 lanes undivided: 2 east bound, 1 west bound	60
			Inputs for calculating Ldn:		**2 east bound lanes**	DAY 82%	1,697	DAY 82%	11	DAY 82%	36	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	498	NIGHT 18%	2	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
					1 west bound lane	DAY 82%	929	DAY 82%	5	DAY 82%	29	DAY 82%	0	DAY 82%	1			
						NIGHT 18%	330	NIGHT 18%	1	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
5	Folsom-Auburn Road	7550 Folsom-Auburn Road is in a residential area along the south bound lanes in Folsom	**42,755**	21,378	2,138	PM Peak	2,089	PM Peak	15	PM Peak	19	PM Peak	0	PM Peak	4	55	4 lanes divided, paved median	50
			Inputs for calculating Ldn:			DAY 82%	1,760	DAY 82%	12	DAY 82%	16	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	423	NIGHT 18%	3	NIGHT 18%	4	NIGHT 18%	0	NIGHT 18%	1			
6	Blue Ravine Road	Blackberry Circle, residential area along north bound lanes in Folsom	**20,688**	10,344	1,034	PM Peak	1,011	PM Peak	7	PM Peak	9	PM Peak	0	PM Peak	2	52	6 lanes divided, including 2 turning lanes, tree-lined median	50
			Inputs for calculating Ldn:			DAY 82%	834	DAY 82%	6	DAY 82%	30	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	187	NIGHT 18%	1	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
7	Sierra College Boulevard	End of Kilmartin Court, residential street adjacent to south bound lanes in Rocklin, Placer County	**26,827**	13,414	1,341	PM Peak	1,310	PM Peak	9	PM Peak	12	PM Peak	0	PM Peak	2	52	3 lanes divided (1 northbound)	70
			Inputs for calculating Ldn:			DAY 82%	1,088	DAY 82%	8	DAY 82%	10	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	249	NIGHT 18%	2	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
8	Douglas Boulevard	4600-4699 Rolling Oaks Drive, residential area adjacent to west bound lanes in Granite Bay, Placer County	**42,649**	21,325	2,132	PM Peak	2,083	PM Peak	15	PM Peak	19	PM Peak	0	PM Peak	4	52	4 lanes divided, tree-lined median	40
			Inputs for calculating Ldn:			DAY 82%	1,742	DAY 82%	12	DAY 82%	25	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	409	NIGHT 18%	3	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
9	Eureka Road	1445 Eureka Road, multi-family residential development (225 units) on north bound lanes in Roseville, Placer County	**41,279**	20,640	2,064	PM Peak	2,016	PM Peak	14	PM Peak	19	PM Peak	0	PM Peak	4	52	6 lanes divided with bike lanes, shrub-lined median	50
			Inputs for calculating Ldn:			DAY 82%	1,654	DAY 82%	12	DAY 82%	24	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	363	NIGHT 18%	3	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			

ALTERNATIVE 3 TRAFFIC INPUTS: 2009
Traffic Inputs for TNM Modeling

Sensitive Noise Receiver	Local Roadway	Description	2009 Total ADT	2009 One direction ADT	2009 PM Peak Hour	Cars: Hourly Volumes		Medium Trucks: Hourly Volumes		Heavy Trucks: Hourly Volumes		Buses: Hourly Volumes		Motorcycles: Hourly Volumes		Speed (mph)	Lanes and Medians	Distance to Receiver (feet)
1	East Bidwell Street	Along Albrighton Drive, residential area adjacent to south bound lanes in Folsom	**41,694**	20,847	2,085	PM Peak	2,037	PM Peak	14	PM Peak	19	PM Peak	0	PM Peak	4	52	5 lanes divided: 3 south, 2 north, tree-lined median	40
			Inputs for calculating Ldn:		**3 south bound lanes**	DAY 82%	2,004	DAY 82%	14	DAY 82%	66	DAY 82%	0	DAY 82%	4			
						NIGHT 18%	440	NIGHT 18%	3	NIGHT 18%	4	NIGHT 18%	0	NIGHT 18%	1			
					2 north bound lanes	DAY 82%	1,336	DAY 82%	9	DAY 82%	59	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	293	NIGHT 18%	2	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
2	Oak Avenue Parkway	Along Thorndike Way, residential area adjacent to north bound lanes in Folsom	**23,552**	11,776	1,178	PM Peak	1,151	PM Peak	8	PM Peak	11	PM Peak	0	PM Peak	2	52	6 lanes divided, tree-lined median	50
			Inputs for calculating Ldn:			DAY 82%	948	DAY 82%	7	DAY 82%	9	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	212	NIGHT 18%	1	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
3	Green Valley Road	Parking lot adjacent to residential area along Kipps Lane, north of Green Valley Road in El Dorado Hills, El Dorado County	**33,949**	16,975	1,697	PM Peak	1,658	PM Peak	12	PM Peak	15	PM Peak	0	PM Peak	3	52	2 lanes undivided	50
			Inputs for calculating Ldn:			DAY 82%	1,411	DAY 82%	10	DAY 82%	14	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	350	NIGHT 18%	2	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
4	East Natoma Road	End of Pomine Court, residential area along east bound lanes in Folsom	**28,751**	14,376	1,438	PM Peak	1,404	PM Peak	10	PM Peak	13	PM Peak	0	PM Peak	3	42	3 lanes undivided: 2 east bound, 1 west bound	60
			Inputs for calculating Ldn:		**2 east bound lanes**	DAY 82%	1,683	DAY 82%	11	DAY 82%	30	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	484	NIGHT 18%	2	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
					1 west bound lane	DAY 82%	915	DAY 82%	5	DAY 82%	17	DAY 82%	0	DAY 82%	1			
						NIGHT 18%	316	NIGHT 18%	1	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
5	Folsom-Auburn Road	7550 Folsom-Auburn Road is in a residential area along the south bound lanes in Folsom	**42,755**	21,378	2,138	PM Peak	2,089	PM Peak	15	PM Peak	19	PM Peak	0	PM Peak	4	55	4 lanes divided, paved median	50
			Inputs for calculating Ldn:			DAY 82%	1,731	DAY 82%	12	DAY 82%	16	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	394	NIGHT 18%	3	NIGHT 18%	4	NIGHT 18%	0	NIGHT 18%	1			
6	Blue Ravine Road	Blackberry Circle, residential area along north bound lanes in Folsom	**20,688**	10,344	1,034	PM Peak	1,011	PM Peak	7	PM Peak	9	PM Peak	0	PM Peak	2	52	6 lanes divided, including 2 turning lanes, tree lined median	50
			Inputs for calculating Ldn:			DAY 82%	834	DAY 82%	6	DAY 82%	24	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	187	NIGHT 18%	1	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
7	Sierra College Boulevard	End of Kilmartin Court, residential street adjacent to south bound lanes in Rocklin, Placer County	**26,827**	13,414	1,341	PM Peak	1,310	PM Peak	9	PM Peak	12	PM Peak	0	PM Peak	2	52	3 lanes divided (1 northbound)	70
			Inputs for calculating Ldn:			DAY 82%	1,084	DAY 82%	8	DAY 82%	12	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	245	NIGHT 18%	2	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
8	Douglas Boulevard	4600-4699 Rolling Oaks Drive, residential area adjacent to west bound lanes in Granite Bay, Placer County	**42,649**	21,325	2,132	PM Peak	2,083	PM Peak	15	PM Peak	19	PM Peak	0	PM Peak	4	52	4 lanes divided, tree-lined median	40
			Inputs for calculating Ldn:			DAY 82%	1,735	DAY 82%	12	DAY 82%	18	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	402	NIGHT 18%	3	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
9	Eureka Road	1445 Eureka Road, multi-family residential development (225 units) on north bound lanes in Roseville, Placer County	**41,279**	20,640	2,064	PM Peak	2,016	PM Peak	14	PM Peak	19	PM Peak	0	PM Peak	4	52	6 lanes divided with bike lanes, shrub-lined median	50
			Inputs for calculating Ldn:			DAY 82%	1,654	DAY 82%	12	DAY 82%	15	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	363	NIGHT 18%	3	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			

ALTERNATIVE 4 TRAFFIC INPUTS: 2009
Traffic Inputs for TNM Modeling

Sensitive Noise Receiver	Local Roadway	Description	2009 Total ADT	2009 One direction ADT	2009 PM Peak Hour	Cars: Hourly Volumes		Medium Trucks: Hourly Volumes		Heavy Trucks: Hourly Volumes		Buses: Hourly Volumes		Motorcycles: Hourly Volumes		Speed (mph)	Lanes and Medians	Distance to Receiver (feet)
1	East Bidwell Street	Along Albrighton Drive, residential area adjacent to south bound lanes in Folsom	**41,694**	20,847	2,085	PM Peak	2,037	PM Peak	14	PM Peak	19	PM Peak	0	PM Peak	4	52	5 lanes divided: 3 south, 2 north, tree-lined median	40
			Inputs for calculating Ldn:		**3 south bound lanes**	DAY 82%	2,004	DAY 82%	14	DAY 82%	62	DAY 82%	0	DAY 82%	4			
						NIGHT 18%	440	NIGHT 18%	3	NIGHT 18%	4	NIGHT 18%	0	NIGHT 18%	1			
					2 north bound lanes	DAY 82%	1,336	DAY 82%	9	DAY 82%	55	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	293	NIGHT 18%	2	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
2	Oak Avenue Parkway	Along Thorndike Way, residential area adjacent to north bound lanes in Folsom	**23,552**	11,776	1,178	PM Peak	1,151	PM Peak	8	PM Peak	11	PM Peak	0	PM Peak	2	52	6 lanes divided, tree-lined median	50
			Inputs for calculating Ldn:			DAY 82%	948	DAY 82%	7	DAY 82%	9	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	212	NIGHT 18%	1	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
3	Green Valley Road	Parking lot adjacent to residential area along Kipps Lane, north of Green Valley Road in El Dorado Hills, El Dorado County	**33,949**	16,975	1,697	PM Peak	1,658	PM Peak	12	PM Peak	15	PM Peak	0	PM Peak	3	52	2 lanes undivided	50
			Inputs for calculating Ldn:			DAY 82%	1,411	DAY 82%	10	DAY 82%	20	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	350	NIGHT 18%	2	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
4	East Natoma Road	End of Pomine Court, residential area along east bound lanes in Folsom	**28,751**	14,376	1,438	PM Peak	1,404	PM Peak	10	PM Peak	13	PM Peak	0	PM Peak	3	42	3 lanes undivided: 2 east bound, 1 west bound	60
			Inputs for calculating Ldn:		**2 east bound lanes**	DAY 82%	1,685	DAY 82%	11	DAY 82%	30	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	486	NIGHT 18%	2	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
					1 west bound lane	DAY 82%	917	DAY 82%	5	DAY 82%	23	DAY 82%	0	DAY 82%	1			
						NIGHT 18%	318	NIGHT 18%	1	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
5	Folsom-Auburn Road	7550 Folsom-Auburn Road is in a residential area along the south bound lanes in Folsom	**42,755**	21,378	2,138	PM Peak	2,089	PM Peak	15	PM Peak	19	PM Peak	0	PM Peak	4	55	4 lanes divided, paved median	50
			Inputs for calculating Ldn:			DAY 82%	1,754	DAY 82%	12	DAY 82%	16	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	417	NIGHT 18%	3	NIGHT 18%	4	NIGHT 18%	0	NIGHT 18%	1			
6	Blue Ravine Road	Blackberry Circle, residential area along north bound lanes in Folsom	**20,688**	10,344	1,034	PM Peak	1,011	PM Peak	7	PM Peak	9	PM Peak	0	PM Peak	2	52	6 lanes divided, including 2 turning lanes, tree-lined median	50
			Inputs for calculating Ldn:			DAY 82%	834	DAY 82%	6	DAY 82%	24	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	187	NIGHT 18%	1	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
7	Sierra College Boulevard	End of Kilmartin Court, residential street adjacent to south bound lanes in Rocklin, Placer County	**26,827**	13,414	1,341	PM Peak	1,310	PM Peak	9	PM Peak	12	PM Peak	0	PM Peak	2	52	3 lanes divided (1 northbound)	70
			Inputs for calculating Ldn:			DAY 82%	1,087	DAY 82%	8	DAY 82%	10	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	248	NIGHT 18%	2	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
8	Douglas Boulevard	4600-4699 Rolling Oaks Drive, residential area adjacent to west bound lanes in Granite Bay, Placer County	**42,649**	21,325	2,132	PM Peak	2,083	PM Peak	15	PM Peak	19	PM Peak	0	PM Peak	4	52	4 lanes divided, tree-lined median	40
			Inputs for calculating Ldn:			DAY 82%	1,740	DAY 82%	12	DAY 82%	19	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	407	NIGHT 18%	3	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
9	Eureka Road	1445 Eureka Road, multi-family residential development (225 units) on north bound lanes in Roseville, Placer County	**41,279**	20,640	2,064	PM Peak	2,016	PM Peak	14	PM Peak	19	PM Peak	0	PM Peak	4	52	6 lanes divided with bike lanes, shrub-lined median	50
			Inputs for calculating Ldn:			DAY 82%	1,654	DAY 82%	12	DAY 82%	17	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	363	NIGHT 18%	3	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			

ALTERNATIVE 5 TRAFFIC INPUTS: 2013
Traffic Inputs for TNM Modeling

Sensitive Noise Receiver	Local Roadway	Description	2013 Total ADT	2013 One direction ADT	2013 PM Peak Hour	Cars: Hourly Volumes		Medium Trucks: Hourly Volumes		Heavy Trucks: Hourly Volumes		Buses: Hourly Volumes		Motorcycles: Hourly Volumes		Speed (mph)	Lanes and Medians	Distance to Receiver (feet)
1	East Bidwell Street	Along Albrighton Drive, residential area adjacent to south bound lanes in Folsom	**45,132**	22,566	2,257	PM Peak	2,205	PM Peak	16	PM Peak	21	PM Peak	0	PM Peak	4	52	5 lanes divided: 3 south, 2 north, tree-lined median	40
			Inputs for calculating Ldn:		**3 south bound lanes**	DAY 82%	2,169	DAY 82%	15	DAY 82%	27	DAY 82%	0	DAY 82%	4			
						NIGHT 18%	476	NIGHT 18%	3	NIGHT 18%	4	NIGHT 18%	0	NIGHT 18%	1			
					2 north bound lanes	DAY 82%	1,446	DAY 82%	10	DAY 82%	20	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	317	NIGHT 18%	2	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
2	Oak Avenue Parkway	Along Thorndike Way, residential area adjacent to north bound lanes in Folsom	**25,496**	12,748	1,275	PM Peak	1,245	PM Peak	9	PM Peak	12	PM Peak	0	PM Peak	2	52	6 lanes divided, tree-lined median	50
			Inputs for calculating Ldn:			DAY 82%	1,025	DAY 82%	7	DAY 82%	10	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	228	NIGHT 18%	2	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
3	Green Valley Road	Parking lot adjacent to residential area along Kipps Lane, north of Green Valley Road in El Dorado Hills, El Dorado County	**36,749**	18,375	1,837	PM Peak	1,795	PM Peak	13	PM Peak	17	PM Peak	0	PM Peak	3	52	2 lanes undivided	50
			Inputs for calculating Ldn:			DAY 82%	1,496	DAY 82%	10	DAY 82%	14	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	347	NIGHT 18%	2	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
4	East Natoma Road	End of Pomine Court, residential area along east bound lanes in Folsom	**31,124**	15,562	1,556	PM Peak	1,520	PM Peak	11	PM Peak	14	PM Peak	0	PM Peak	3	42	3 lanes undivided: 2 east bound, 1 west bound	60
			Inputs for calculating Ldn:		**2 east bound lanes**	DAY 82%	1,790	DAY 82%	12	DAY 82%	18	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	493	NIGHT 18%	3	NIGHT 18%	3	NIGHT 18%	0	NIGHT 18%	1			
					1 west bound lane	DAY 82%	959	DAY 82%	6	DAY 82%	11	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	310	NIGHT 18%	1	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
5	Folsom-Auburn Road	7550 Folsom-Auburn Road is in a residential area along the south bound lanes in Folsom	**46,282**	23,141	2,314	PM Peak	2,261	PM Peak	16	PM Peak	21	PM Peak	0	PM Peak	4	55	4 lanes divided, paved median	50
			Inputs for calculating Ldn:			DAY 82%	1,912	DAY 82%	13	DAY 82%	17	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	465	NIGHT 18%	3	NIGHT 18%	4	NIGHT 18%	0	NIGHT 18%	1			
6	Blue Ravine Road	Blackberry Circle, residential area along north bound lanes in Folsom	**22,396**	11,198	1,120	PM Peak	1,094	PM Peak	8	PM Peak	10	PM Peak	0	PM Peak	2	52	6 lanes divided, including 2 turning lanes, tree-lined median	50
			Inputs for calculating Ldn:			DAY 82%	900	DAY 82%	6	DAY 82%	12	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	200	NIGHT 18%	1	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
7	Sierra College Boulevard	End of Kilmartin Court, residential street adjacent to south bound lanes in Rocklin, Placer County	**29,041**	14,521	1,452	PM Peak	1,419	PM Peak	10	PM Peak	13	PM Peak	0	PM Peak	3	52	3 lanes divided (1 northbound)	70
			Inputs for calculating Ldn:			DAY 82%	1,174	DAY 82%	8	DAY 82%	19	DAY 82%	0	DAY 82%	2			
						NIGHT 18%	266	NIGHT 18%	2	NIGHT 18%	2	NIGHT 18%	0	NIGHT 18%	0			
8	Douglas Boulevard	4600-4699 Rolling Oaks Drive, residential area adjacent to west bound lanes in Granite Bay, Placer County	**46,167**	23,084	2,308	PM Peak	2,255	PM Peak	16	PM Peak	21	PM Peak	0	PM Peak	4	52	4 lanes divided, tree-lined median	40
			Inputs for calculating Ldn:			DAY 82%	1,904	DAY 82%	13	DAY 82%	25	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	461	NIGHT 18%	3	NIGHT 18%	4	NIGHT 18%	0	NIGHT 18%	1			
9	Eureka Road	1445 Eureka Road, multi-family residential development (225 units) on north bound lanes in Roseville, Placer County	**44,684**	22,342	2,234	PM Peak	2,183	PM Peak	15	PM Peak	20	PM Peak	0	PM Peak	4	52	6 lanes divided with bike lanes, shrub-lined median	50
			Inputs for calculating Ldn:			DAY 82%	1,790	DAY 82%	13	DAY 82%	17	DAY 82%	0	DAY 82%	3			
						NIGHT 18%	393	NIGHT 18%	3	NIGHT 18%	4	NIGHT 18%	0	NIGHT 18%	1			

Daily Truck and Worker Trips

		2009								2013	
		Alternative 1		Alternative 2		Alternative 3		Alternative 4		Alternative 5	
Sensitive Noise Receiver	Local Roadway	New Trucks	New Workers	New Trucks	New Workers	New Trucks	New Workers	New Trucks	New Workers	New Trucks	New Workers
1	East Bidwell Street	410	0	410	0	377	0	342	0	54	0
2	Oak Avenue Parkway	0	20	0	20	0	20	0	20	0	16
3	Green Valley Road	80	204	40	124	4	204	56	204	0	96
4	East Natoma Road	163	596	175	644	126	588	131	596	20	512
5	Folsom-Auburn Road	0	196	0	188	0	72	0	164	0	232
6	Blue Ravine Road	163	20	175	20	126	20	131	20	20	16
7	Sierra College Boulevard	0	48	2	52	13	36	2	48	65	44
8	Douglas Boulevard	20	128	74	136	16	108	21	128	65	220
9	Eureka Road	20	0	72	0	3	0	19	0	0	0

Hourly Truck and Worker Trips

		2009								2013	
		Alternative 1		Alternative 2		Alternative 3		Alternative 4		Alternative 5	
Sensitive Noise Receiver	Local Roadway	New Trucks	New Workers	New Trucks	New Workers	New Trucks	New Workers	New Trucks	New Workers	New Trucks	New Workers
1	East Bidwell Street	51	0	51	0	47	0	43	0	7	0
2	Oak Avenue Parkway	0	5	0	5	0	5	0	5	0	4
3	Green Valley Road	10	51	5	31	1	51	7	51	0	24
4	East Natoma Road	20	149	22	161	16	147	16	149	3	128
5	Folsom-Auburn Road	0	49	0	47	0	18	0	41	0	58
6	Blue Ravine Road	20	5	22	5	16	5	16	5	3	4
7	Sierra College Boulevard	0	12	0	13	2	9	0	12	8	11
8	Douglas Boulevard	3	32	9	34	2	27	3	32	8	55
9	Eureka Road	3	0	9	0	0	0	2	0	0	0

ALTERNATIVE 1 RESULTS - 2009
Ldn Noise Levels

Sensitive Noise Receiver Number	Local Roadway	Description	50 ft Daytime (Leq)	50 ft Night (Leq)	50 ft Ldn
1	East Bidwell Street	Along Albrighton Drive, residential area adjacent to south bound lanes in Folsom	74.0	66.5	**75.1**
2	Oak Avenue Parkway	Along Thorndike Way, residential area adjacent to north bound lanes in Folsom	70.3	63.7	**71.9**
3	Green Valley Road	Parking lot adjacent to residential area along Kipps Lane, north of Green Valley Road in El Dorado Hills, El Dorado County	73.8	66.2	**74.9**
4	East Natoma Road	End of Pomine Court, residential area along east bound lanes in Folsom	69.9	63.9	**71.9**
5	Folsom-Auburn Road	7550 Folsom-Auburn Road is in a residential area along the south bound lanes in Folsom	73.9	67.7	**75.7**
6	Blue Ravine Road	Blackberry Circle, residential area along north bound lanes in Folsom	70.5	63.2	**71.7**
7	Sierra College Boulevard	End of Kilmartin Court, residential street adjacent to south bound lanes in Rocklin, Placer County	71.5	65	**73.2**
8	Douglas Boulevard	4600-4699 Rolling Oaks Drive, residential area adjacent to west bound lanes in Granite Bay, Placer County	73.1	66.7	**74.8**
9	Eureka Road	1445 Eureka Road, multi-family residential development (225 units) on north bound lanes in Roseville, Placer County	72.8	66.2	**74.4**

ALTERNATIVE 2 RESULTS- 2009
Ldn Noise Levels

Sensitive Noise Receiver Number	Local Roadway	Description	50 ft Daytime (Leq)	50 ft Night (Leq)	50 ft Ldn
1	East Bidwell Street	Along Albrighton Drive, residential area adjacent to south bound lanes in Folsom	74.0	66.5	**75.1**
2	Oak Avenue Parkway	Along Thorndike Way, residential area adjacent to north bound lanes in Folsom	70.3	63.7	**71.9**
3	Green Valley Road	Parking lot adjacent to residential area along Kipps Lane, north of Green Valley Road in El Dorado Hills, El Dorado County	72.9	66.5	**74.6**
4	East Natoma Road	End of Pomine Court, residential area along east bound lanes in Folsom	69.9	64.1	**72.0**
5	Folsom-Auburn Road	7550 Folsom-Auburn Road is in a residential area along the south bound lanes in Folsom	73.9	67.7	**75.7**
6	Blue Ravine Road	Blackberry Circle, residential area along north bound lanes in Folsom	70.5	63.2	**71.7**
7	Sierra College Boulevard	End of Kilmartin Court, residential street adjacent to south bound lanes in Rocklin, Placer County	71.5	65.1	**73.2**
8	Douglas Boulevard	4600-4699 Rolling Oaks Drive, residential area adjacent to west bound lanes in Granite Bay, Placer County	73.3	66.7	**74.9**
9	Eureka Road	1445 Eureka Road, multi-family residential development (225 units) on north bound lanes in Roseville, Placer County	72.9	66.2	**74.4**

ALTERNATIVE 3 RESULTS - 2009
Ldn Noise Levels

Sensitive Noise Receiver Number	Local Roadway	Description	50 ft Daytime (Leq)	50 ft Night (Leq)	50 ft Ldn
1	East Bidwell Street	Along Albrighton Drive, residential area adjacent to south bound lanes in Folsom	73.9	66.5	**75.1**
2	Oak Avenue Parkway	Along Thorndike Way, residential area adjacent to north bound lanes in Folsom	70.3	63.7	**71.9**
3	Green Valley Road	Parking lot adjacent to residential area along Kipps Lane, north of Green Valley Road in El Dorado Hills, El Dorado County	72.8	66.7	**74.7**
4	East Natoma Road	End of Pomine Court, residential area along east bound lanes in Folsom	69.7	63.9	**71.8**
5	Folsom-Auburn Road	7550 Folsom-Auburn Road is in a residential area along the south bound lanes in Folsom	73.8	67.4	**75.5**
6	Blue Ravine Road	Blackberry Circle, residential area along north bound lanes in Folsom	70.3	63.2	**71.6**
7	Sierra College Boulevard	End of Kilmartin Court, residential street adjacent to south bound lanes in Rocklin, Placer County	71.6	65	**73.2**
8	Douglas Boulevard	4600-4699 Rolling Oaks Drive, residential area adjacent to west bound lanes in Granite Bay, Placer County	73.1	66.7	**74.8**
9	Eureka Road	1445 Eureka Road, multi-family residential development (225 units) on north bound lanes in Roseville, Placer County	72.8	66.2	**74.4**

ALTERNATIVE 4 RESULTS - 2009
Ldn Noise Levels

Sensitive Noise Receiver Number	Local Roadway	Description	50 ft Daytime (Leq)	50 ft Night (Leq)	50 ft Ldn
1	East Bidwell Street	Along Albrighton Drive, residential area adjacent to south bound lanes in Folsom	73.9	66.5	**75.1**
2	Oak Avenue Parkway	Along Thorndike Way, residential area adjacent to north bound lanes in Folsom	70.3	63.7	**71.9**
3	Green Valley Road	Parking lot adjacent to residential area along Kipps Lane, north of Green Valley Road in El Dorado Hills, El Dorado County	73.0	66.7	**74.8**
4	East Natoma Road	End of Pomine Court, residential area along east bound lanes in Folsom	69.7	63.9	**71.8**
5	Folsom-Auburn Road	7550 Folsom-Auburn Road is in a residential area along the south bound lanes in Folsom	73.9	67.7	**75.7**
6	Blue Ravine Road	Blackberry Circle, residential area along north bound lanes in Folsom	70.3	63.2	**71.6**
7	Sierra College Boulevard	End of Kilmartin Court, residential street adjacent to south bound lanes in Rocklin, Placer County	71.5	65.0	**73.2**
8	Douglas Boulevard	4600-4699 Rolling Oaks Drive, residential area adjacent to west bound lanes in Granite Bay, Placer County	73.1	66.7	**74.8**
9	Eureka Road	1445 Eureka Road, multi-family residential development (225 units) on north bound lanes in Roseville, Placer County	72.8	66.2	**74.4**

ALTERNATIVE 5 RESULTS - 2013
Ldn Noise Levels

Sensitive Noise Receiver Number	Local Roadway	Description	50 ft Daytime (Leq)	50 ft Night (Leq)	50 ft Ldn
1	East Bidwell Street	Along Albrighton Drive, residential area adjacent to south bound lanes in Folsom	73.6	66.8	**75.1**
2	Oak Avenue Parkway	Along Thorndike Way, residential area adjacent to north bound lanes in Folsom	70.6	64.1	**72.3**
3	Green Valley Road	Parking lot adjacent to residential area along Kipps Lane, north of Green Valley Road in El Dorado Hills, El Dorado County	73.1	66.7	**74.8**
4	East Natoma Road	End of Pomine Court, residential area along east bound lanes in Folsom	69.6	63.9	**71.7**
5	Folsom-Auburn Road	7550 Folsom-Auburn Road is in a residential area along the south bound lanes in Folsom	74.2	68.1	**76.1**
6	Blue Ravine Road	Blackberry Circle, residential area along north bound lanes in Folsom	70.2	63.4	**71.7**
7	Sierra College Boulevard	End of Kilmartin Court, residential street adjacent to south bound lanes in Rocklin, Placer County	72.1	65.3	**73.6**
8	Douglas Boulevard	4600-4699 Rolling Oaks Drive, residential area adjacent to west bound lanes in Granite Bay, Placer County	73.6	67.3	**75.4**
9	Eureka Road	1445 Eureka Road, multi-family residential development (225 units) on north bound lanes in Roseville, Placer County	73.1	66.5	**74.7**

Appendix H
Public Health & Safety Record Search

EDR DataMap™ Corridor Study

Folsom Dam
Folsom, CA 95630

March 23, 2006

Inquiry number 01637093.1r

EDR® Environmental Data Resources Inc

The Standard in Environmental Risk Management Information

440 Wheelers Farms Road
Milford, Connecticut 06461

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR).

TARGET PROPERTY INFORMATION

ADDRESS

FOLSOM, CA 95630
FOLSOM, CA 95630

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records within the requested search area for the following databases:

FEDERAL RECORDS

NPL	National Priority List
Proposed NPL	Proposed National Priority List Sites
Delisted NPL	National Priority List Deletions
NPL RECOVERY	Federal Superfund Liens
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CERC-NFRAP	CERCLIS No Further Remedial Action Planned
CORRACTS	Corrective Action Report
RCRA-TSDF	Resource Conservation and Recovery Act Information
RCRA-LQG	Resource Conservation and Recovery Act Information
HMIRS	Hazardous Materials Information Reporting System
US ENG CONTROLS	Engineering Controls Sites List
US INST CONTROL	Sites with Institutional Controls
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
US BROWNFIELDS	A Listing of Brownfields Sites
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
ODI	Open Dump Inventory
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
MINES	Mines Master Index File
RAATS	RCRA Administrative Action Tracking System

STATE AND LOCAL RECORDS

AWP	Annual Workplan Sites
Cal-Sites	Calsites Database
CA BOND EXP. PLAN	Bond Expenditure Plan

EXECUTIVE SUMMARY

NFE Properties Needing Further Evaluation
REF Unconfirmed Properties Referred to Another Agency
SCH School Property Evaluation Program
Toxic Pits Toxic Pits Cleanup Act Sites
WMUDS/SWAT Waste Management Unit Database
Notify 65 Proposition 65 Records
CLEANERS Cleaner Facilities
WIP Well Investigation Program Case List
EMI Emissions Inventory Data

TRIBAL RECORDS

INDIAN RESERV Indian Reservations
INDIAN LUST Leaking Underground Storage Tanks on Indian Land
INDIAN UST Underground Storage Tanks on Indian Land

EDR PROPRIETARY RECORDS

Manufactured Gas Plants EDR Proprietary Manufactured Gas Plants

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

FEDERAL RECORDS

RCRAInfo: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System(RCRIS). The database includes selective information on sites which generate, transport, store , treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month Large quantity generators generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-SQG list, as provided by EDR, and dated 12/15/2005 has revealed that there are 5 RCRA-SQG sites within the searched area.

Site	Address	Map ID	Page
BUDS GIANITE BAY CLEANERS	***8613 AUBURN FOLSOM BLVD***	***9***	***12***
JOSEPH D LOPEZ	***6812 BRANDY CIRCLE***	***9***	***23***
RALEYS DRUG CTR 492	6845 DOUGLAS BLVD	9	35
CALIFORNIA DEPT FOOD & AGRIC	***600 E NATOMA***	***39***	***119***
FOLSOM CORDOVA USD BLANCHE SPR	***249 FLOWER CIRCLE***	***47***	***128***

EXECUTIVE SUMMARY

ERNS: The Emergency Response Notification System records and stores information on reported releases of oil and hazardous substances. The source of this database is the U.S. EPA.

A review of the ERNS list, as provided by EDR, and dated 12/31/2005 has revealed that there are 10 ERNS sites within the searched area.

Site	Address	Map ID	Page
8779 AUBURN FOLSOM RD	8779 AUBURN FOLSOM RD	9	8
DOUGLAS BLVD/AUBURN AND FOLSOM	DOUGLAS BLVD/AUBURN AND	9	23
8715 SPOONER CT	8715 SPOONER CT	13	39
9242 PURDY LANE	9242 PURDY LANE	20	49
FOLSOM LAKE NEAR TOWN OF FOLSO	FOLSOM LAKE NEAR TOWN O	33	89
FOLSOM DAM ROAD FOLSOM SUBSTAT	FOLSOM DAM ROAD FOLSOM	33	89
FOLSOM DAM RD, FOLSOM SUBSTATI	FOLSOM DAM RD, FOLSOM S	33	89
FOLSOM SOUTH CANAL BETW HWY 50	FOLSOM SOUTH CANAL BETW	33	90
FOLSOM PRISON	FOLSOM PRISON	33	90
FOLSOM STATE PRISON, BETWEEN B	FOLSOM STATE PRISON, BE	33	90

FTTS: FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act) over the previous five years. To maintain currency, EDR contacts the Agency on a quarterly basis.

A review of the FTTS list, as provided by EDR, and dated 01/17/2006 has revealed that there is 1 FTTS site within the searched area.

Site	Address	Map ID	Page
BUREAU OF RECLAMATION-FOLSOM D	***7794 FOLSOM DAM RD***	***28***	***75***

SSTS: Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

A review of the SSTS list, as provided by EDR, and dated 12/31/2003 has revealed that there is 1 SSTS site within the searched area.

Site	Address	Map ID	Page
PRISON IND AUTH CHEMICAL DIV	560 E NATOMA ST	38	115

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 01/09/2006 has revealed that there are 14

FINDS sites within the searched area.

Site	Address	Map ID	Page
CAVITT (WILLMA) JUNIOR HIGH SC	7200 FULLER DR.	9	12
BUDS GIANITE BAY CLEANERS	***8613 AUBURN FOLSOM BLVD***	***9***	***12***
JOSEPH D LOPEZ	***6812 BRANDY CIRCLE***	***9***	***23***
USA GASOLINE CORPORATION FACIL	***6990 DOUGLAS BLVD***	***9***	***27***
RALEY S #412	6845 DOUGLAS BLVD	9	35
ROSEVILLE WATER TREATMENT PLAN	9342 BARTON RD.	22	51
SAN JUAN WATER DISTRICT	9935 AUBURN FOLSOM ROAD	27	58
BUREAU OF RECLAMATION-FOLSOM D	***7794 FOLSOM DAM RD***	***28***	***75***
SUNDAHL (CARL H.) ELEMENTARY	9932 INWOOD ROAD	35	95
PRISON INDUSTRY AUTHORITY	560 E NATOMA ST	38	118
CALIFORNIA DEPT FOOD & AGRIC	***600 E NATOMA***	***39***	***119***
FOLSOM HILLS ELEMENTARY	106 MANSEAU DR.	43	122
FOLSOM CORDOVA USD BLANCHE SPR	***249 FLOWER CIRCLE***	***47***	***128***
SPRENTZ (BLANCHE) ELEMENTARY	249 FLOWER DR.	47	128

STATE AND LOCAL RECORDS

NFA: This category contains properties at which DTSC has made aclear determination that the property does not pose a problem to the environment or to public health.

A review of the NFA list, as provided by EDR, and dated 08/08/2005 has revealed that there is 1 NFA site within the searched area.

Site	Address	Map ID	Page
HAAG PROPERTY	9232 BARTON ROAD	19	46

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, and dated 12/08/2005 has revealed that there is 1 SWF/LF site within the searched area.

Site	Address	Map ID	Page
FOLSOM MATERIALS RECOVERY & CO	N OF NEW FOLSOM PRISON	41	121

WDS: California Water Resources Control Board - Waste Discharge System.

A review of the CA WDS list, as provided by EDR, and dated 12/19/2005 has revealed that there is 1 CA WDS site within the searched area.

Site	Address	Map ID	Page
ROSEVILLE WATER TREATMENT PLAN	***9595 BARTON RD***	***24***	***53***

EXECUTIVE SUMMARY

CORTESE: This database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with USTs having a reportable release and all solid waste disposal facilities from which there is known migration. The source is the California Environmental Protection Agency/Office of Emergency Information.

A review of the Cortese list, as provided by EDR, and dated 04/01/2001 has revealed that there are 9 Cortese sites within the searched area.

Site	Address	Map ID	Page
HIDDEN VALLEY MAINTENANCE YARD	***7077 PINE GATE WAY***	***3***	***3***
ARCO #2140	8555 AUBURNFOLSOM	9	12
BEACON #3642 (FORMER)	***6990 DOUGLAS BLVD***	***9***	***27***
KIRBY, CHARLES R. & NORMA	8380 AUBURN FOLSOM	9	37
SEATERS, MARION & KATHLEE	7430 BASCOU	13	41
FOLSOM DAM	***7794 FOLSOM DAM RD***	***28***	***70***
SIERRA LIFE CHURCH	64 MARY	30	80
GREEN VALLEY GAS & FOOD	***369 GREEN VALLEY RD***	***32***	***82***
COUNTRY BOY GENERAL STORE	***7530 FOLSOM-AUBURN BLVD***	***34***	***94***

SWRCY: A listing of recycling facilities in California.

A review of the SWRCY list, as provided by EDR, and dated 01/05/2006 has revealed that there is 1 SWRCY site within the searched area.

Site	Address	Map ID	Page
WEIS RECYCLE CENTERS INC/RALEY	6847 DOUGLAS BLVD	9	34

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 01/09/2006 has revealed that there are 7 LUST sites within the searched area.

Site	Address	Map ID	Page
HIDDEN VALLEY MAINTENANCE YARD	***7077 PINE GATE WAY***	***3***	***3***
Facility Status: Case Closed			
ARCO #2140	8555 AUBURN-FOLSOM RD	9	20
Facility Status: Post remedial action monitoring			
BEACON #3642 (FORMER)	***6990 DOUGLAS BLVD***	***9***	***27***
Facility Status: Remedial action (cleanup) Underway			
SAN JUAN SUBURBAN WATER DIST	9925 AUBURN-FOLSOM RD	27	62
Facility Status: Case Closed			
FOLSOM DAM	***7794 FOLSOM DAM RD***	***28***	***70***
Facility Status: Case Closed			
GREEN VALLEY GAS & FOOD	***381 GREEN VALLEY RD***	***32***	***84***
Facility Status: Pollution Characterization			
COUNTRY BOY GENERAL STORE	***7530 FOLSOM-AUBURN BLVD***	***34***	***94***
Facility Status: Case Closed			

EXECUTIVE SUMMARY

CA FID: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 9 CA FID UST sites within the searched area.

Site	Address	Map ID	Page
ARCO FACILITY #2140	***8555 AUBURN FOLSOM RD***	***9***	***17***
BEACON #642	***6990 DOUGLAS BLVD***	***9***	***25***
SAN JUAN SUBURBAN WATER DIST	***9965 AUBURN FOLSOM RD***	***27***	***57***
SAN JUAN SUBURBAN WATER DIST	***9935 AUBURN FOLSOM RD***	***27***	***59***
AMERICAN RIVER DISTRICT	***7806 FOLSOM AUBURN RD***	***28***	***66***
FOLSOM DAM	***7794 FOLSOM DAM RD***	***28***	***70***
FOLSOM SUBSTATION	***FOLSOM DAM***	***28***	***76***
GREEN VALLEY MARKET	***381 GREEN VALLEY RD***	***29***	***78***
COUNTRY BOY MARKET	***7530 FOLSOM AUBURN RD***	***34***	***92***

CA SLIC: SLIC Region comes from the California Regional Water Quality Control Board.

A review of the SLIC list, as provided by EDR, and dated 01/09/2006 has revealed that there is 1 SLIC site within the searched area.

Site	Address	Map ID	Page
CDFA FOLSOM FACILITY Facility Status: Case Open	600 E. NATOMA	39	119

CS: Contaminated Sites.

A review of the Sacramento Co. CS list, as provided by EDR, and dated 02/02/2006 has revealed that there are 7 Sacramento Co. CS sites within the searched area.

Site	Address	Map ID	Page
FOLSOM DAM Date Closed: 07/28/1992 Date Closed: 02/02/1999	***7794 FOLSOM DAM RD***	***28***	***70***
WAPA-FOLSOM SUBSTATION	***FOLSOM DAM RD***	***33***	***88***
COUNTRY BOY GENERAL STORE Date Closed: 02/18/1998	7530 FOLSOM AUBURN RD	34	91
CITY OF FOLSOM/SOLID WASTE DIV	***560 E NATOMA ST***	***38***	***105***
CALIFORNIA STATE PRISON GARAGE	560 E NATOMA ST	38	107
FOLSOM STATE PRISON	***560 E NATOMA***	***38***	***108***
FOLSOM PRISON-GREEN VALLEY	560 E NATOMA ST	38	115

EXECUTIVE SUMMARY

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 01/09/2006 has revealed that there are 2 UST sites within the searched area.

Site	Address	Map ID	Page
ARCO #2140, AM/PM GRANITE BAY	8555 AUBURN FOLSOM RD	9	20
KIENER, DAVE	***8940 WAGON WAY***	***16***	***42***

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 15 HIST UST sites within the searched area.

Site	Address	Map ID	Page
HVCA EQUIPMENT YARD	***7077 PINEGATE WAY***	***3***	***5***
STATION #3	7047 LAIRD ROAD	4	6
T MARC KNUTSEN	8555 AUBURN FOLSOM RD	9	15
ARCO AM/PM #2140	8555 AUBURN FOLSOM RD	9	16
THE CORNER	6990 DOUGLAS BLVD	9	23
JOSEPH H. PIERCE	8800 WAGON WAY	14	41
JOSEPH R. GALLARDO	***6237 EUREKA RD***	***17***	***42***
OTOW ORCHARD	6232 EUREKA RD	17	43
STATION #1	***6900 EUREKA RD***	***18***	***43***
KEN ROBERTS	9230 AUBURN FOLSOM RD.	21	51
AMERICAN RIVER DISTRICT	7806 FOLSOM AUBURN RD	28	65
PINEBROOK VILLAGE	***7900 FOLSOM AUBURN RD***	***28***	***68***
U.S. BUREAU OF RECLAMATION FOL	7794 FOLSOM DAM RD	28	73
GREEN VALLEY MARKET	381 GREEN VALLEY RD	32	83
FOLSOM SUBSTATION	FOLSOM DAM	33	88

AST: The Aboveground Storage Tank database contains registered ASTs. The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the AST list, as provided by EDR, and dated 01/30/2006 has revealed that there are 4 AST sites within the searched area.

Site	Address	Map ID	Page
SAN JUAN SUBURBAN WATER DIST	***9935 AUBURN FOLSOM RD***	***27***	***61***
FOLSOM LAKE	7806 FOLSOM-AUBURN RD.	28	66
FOLSOM SUBSTATION	***FOLSOM DAM***	***28***	***76***
FOLSOM WATER TREATMENT PLANT	194 RANDALL DRIVE	44	123

EXECUTIVE SUMMARY

CA MS: Placer County Master List of Facilities includes Aboveground Hazardous Material tanks, Underground Storage tanks, Site Clean-up sites.

A review of the CA PLACER CO. MS list, as provided by EDR, and dated 01/18/2006 has revealed that there are 23 CA PLACER CO. MS sites within the searched area.

Site	Address	Map ID	Page
METRO PCS #135 (MADRID BOULDER	6525 BOULDER RD	1	3
HIDDEN VALLEY COMMUNITY ASSOC.	7077 PINE GATE WAY	3	5
STATION #3	***7047 LAIRD RD***	***4***	***5***
ROCK CREEK MOBILE HOME PARK	8045 MORNINGSIDE DR	7	7
VARAKUTA, BEN	8377 OAK KNOLL DR	8	8
BP WEST COAST PRODUCTS LLC 021	***8555 AUBURN FOLSOM RD***	***9***	***14***
USA GASOLINE #3642	6990 DOUGLAS BLVD	9	27
BEACON #3642 (FORMER)	***6990 DOUGLAS BLVD***	***9***	***27***
GRANITE BAY AUTO PARTS	7110 DOUGLAS BLVD	9	32
LONGS DRUG STORE #526	8455 AUBURN FOLSOM RD	9	37
METRO PCS #137 (HIDDEN LAKES)	7955 W HIDDEN LAKES DR	10	38
KIENER, DAVE	***8940 WAGON WAY***	***16***	***42***
JOSEPH R. GALLARDO	***6237 EUREKA RD***	***17***	***42***
STATION #1	***6900 EUREKA RD***	***18***	***43***
AT & T WIRELESS SVCS-EUREKA RD	6900 EUREKA RD	18	44
1X SO PLACER FIRE DIST/STA. #	***6900 EUREKA RD***	***18***	***45***
ROSEVILLE, CITY OF, WATER TREA	9342 BARTON RD	22	52
ROSEVILLE WATER TREATMENT PLAN	***9595 BARTON RD***	***24***	***53***
GRANITE BAY GOLF CLUB	9580 BARTON RD	24	56
NEXTEL COMM (SITE 1781)	9651 AUBURN FOLSOM RD	25	56
LOVEALL, JACK AND PATRICIA	9145 OAK LEAF WAY	26	56
SAN JUAN SUBURBAN WATER DIST	***9935 AUBURN FOLSOM RD***	***27***	***59***
PINEBROOK VILLAGE	***7900 FOLSOM AUBURN RD***	***28***	***68***

SWEEPS: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1980's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 16 SWEEPS UST sites within the searched area.

Site	Address	Map ID	Page
HVCA EQUIPMENT YARD	***7077 PINEGATE WAY***	***3***	***5***
STATION #3	***7047 LAIRD RD***	***4***	***5***
ARCO FACILITY #2140	***8555 AUBURN FOLSOM RD***	***9***	***17***
BEACON #642	***6990 DOUGLAS BLVD***	***9***	***25***
MR. LOVEALL PROPERTY	9145 OAK LEAF WAY	26	57
SAN JUAN SUBURBAN WATER DIST	***9965 AUBURN FOLSOM RD***	***27***	***57***
SAN JUAN SUBURBAN WATER DIST	9935 AUBURN FOLSON RD	27	58
SAN JUAN SUBURBAN WATER DIST	***9935 AUBURN FOLSOM RD***	***27***	***59***
SAN JUAN SUBURBAN WATER DIST	***9935 AUBURN FOLSOM RD***	***27***	***61***
AMERICAN RIVER DISTRICT	***7806 FOLSOM AUBURN RD***	***28***	***66***
FOLSOM DAM	***7794 FOLSOM DAM RD***	***28***	***70***
FOLSOM SUBSTATION	***FOLSOM DAM***	***28***	***76***
GREEN VALLEY MARKET	***381 GREEN VALLEY RD***	***29***	***78***
GREEN VALLEY GAS & FOOD	***381 GREEN VALLEY RD***	***32***	***84***
COUNTRY BOY MARKET	***7530 FOLSOM AUBURN RD***	***34***	***92***

EXECUTIVE SUMMARY

Site	Address	Map ID	Page
FOLSOM STATE PRISON	***560 E NATOMA***	***38***	***108***

CHMIRS: The California Hazardous Material Incident Report System contains information on reported hazardous material incidents, i.e., accidental releases or spills. The source is the California Office of Emergency Services.

A review of the CHMIRS list, as provided by EDR, and dated 12/31/2004 has revealed that there are 9 CHMIRS sites within the searched area.

Site	Address	Map ID	Page
Not reported	7200 FULLER ROAD	9	9
Not reported	FULLER DR. / AUBURN/FOL	9	11
Not reported	8715 SPOONER CT	13	39
Not reported	9242 PURDY WAY	20	47
Date Completed: 16-FEB-91			
Not reported	9237 PURDY LANE	20	49
Not reported	9500 BARTON RD	23	52
Not reported	103 HOLLYANN DR.	31	80
Not reported	560 EAST NATUMA STREET	38	113
Not reported	194 RANDALL DR.	44	123

DEED: The use of recorded land use restrictions is one of the methods the DTSC uses to protect the public from unsafe exposures to hazardous substances and wastes .

A review of the DEED list, as provided by EDR, and dated 01/03/2006 has revealed that there is 1 DEED site within the searched area.

Site	Address	Map ID	Page
FOLSOM PRISON	***N OF FOLSOM CITY; ADJ T***	***37***	***96***

VCP: Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

A review of the VCP list, as provided by EDR, and dated 08/08/2005 has revealed that there is 1 VCP site within the searched area.

Site	Address	Map ID	Page
FOLSOM PRISON	***N OF FOLSOM CITY; ADJ T***	***37***	***96***

EXECUTIVE SUMMARY

CDL: A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

A review of the CDL list, as provided by EDR, and dated 12/31/2005 has revealed that there are 2 CDL sites within the searched area.

Site	Address	Map ID	Page
Not reported	7855 MORNING SIDE DRIVE	6	7
Not reported	6981 DOUGLAS BLVD	9	34

CA ML: Sacramento County Master List. Any business that has hazardous materials on site - hazardous materials storage sites, underground storage tanks, waste generators.

A review of the Sacramento Co. ML list, as provided by EDR, and dated 02/02/2006 has revealed that there are 22 Sacramento Co. ML sites within the searched area.

Site	Address	Map ID	Page
THE DAM NURSERY	7700 FOLSOM AUBURN	28	64
AMERICAN RIVER DISTRICT	***7806 FOLSOM AUBURN RD***	***28***	***66***
PINEBROOK VILLAGE	***7900 FOLSOM AUBURN RD***	***28***	***68***
M A NANGLE, DC	7940 FOLSOM AUBURN	28	69
BUREAU OF REC - DRILL YARD	7794 FOLSOM DAM RD	28	70
CENTRAL CALIF AREA OFFICE	7794 FOLSOM DAM RD	28	75
FOLSOM SUBSTATION	***FOLSOM DAM***	***28***	***76***
DOUGLAS REKERS DDS	***8008 FOLSOM AUBURN RD***	***28***	***77***
EARNEST J HOOK DPM	8018 FOLSOM AUBURN RD	28	78
WAPA-FOLSOM SUBSTATION	***FOLSOM DAM RD***	***33***	***88***
BROTHERS BOATS	***7450 FOLSOM AUBURN RD***	***34***	***90***
COUNTRY BOY GENERAL STORE	7530 FOLSOM AUBURN	34	92
CITY OF FOLSOM/SOLID WASTE DIV	***560 E NATOMA ST***	***38***	***105***
FOLSOM CORRECTIONAL RESOURCE	560 E NATOMA ST	38	108
CALIF STATE PRISON-SACRAMENTO	560 E NATOMA ST	38	114
RALPH'S #988	25000 BLUE RAVINE RD	40	120
SUMMIT DENTAL	25004 BLUE RAVINE RD, #	40	120
EMPIRE RANCH GOLF CLUB	1620 E NATOMAS ST	42	122
CITY OF FOLSOM WATER TREATMENT	***194 RANDALL DR***	***44***	***124***
TOM HOWARD MOVING SERVICE	236 SPENCER ST	45	126
CINGULAR WIRELESS	771 OAK AV PKWY	46	126
BLANCHE SPRENTZ ELEM. SCHOOL	249 FLOWER CR	47	128

HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control is the agency

A review of the HAZNET list, as provided by EDR, and dated 12/31/2003 has revealed that there are 42 HAZNET sites within the searched area.

EXECUTIVE SUMMARY

Site	Address	Map ID	Page
EMC MORTGAGE COMPANY	6590 AUBURN FOLSOM RD	2	3
BOB ERICKSON	7500 MORNINGSIDE DR	5	7
JACK-LINSSEN ENTERPRISES LLC	8769 AUBURN-FOLSOM RD	9	8
GRANITE BAY MEDICAL CINIC	8757 AUBURN-FOLSOM RD	9	8
BUDS GIANITE BAY CLEANERS	***8613 AUBURN FOLSOM BLVD***	***9***	***12***
BP WEST COAST PRODUCTS LLC 021	***8555 AUBURN FOLSOM RD***	***9***	***14***
ARCO PRODUCTS COMPANY	8555 AUBURN FOLSOM RD	9	21
USA GASOLINE CORPORATION FACIL	***6990 DOUGLAS BLVD***	***9***	***27***
BEACON #3642 (FORMER)	***6990 DOUGLAS BLVD***	***9***	***27***
ULTRAMAR INC 3642	6990 DOUGLAS BLVD	9	29
KEVEN R MILLS DDS	6910 DOUGLAS BLVD STE B	9	31
ROBERT WALLER	7150 DOUGLAS BLVD	9	32
BECK CHIROPRACTIC/GRANITE BAY	6910 DOUGLAS BLVD.	9	33
RITE AID CORPORATION	7005 DOUGLAS BLVD	9	34
RALEY'S #412/492	6845 DOUGLAS BLVD	9	35
LONGS DRUGS STORE #526	8435 AUBURN-FOLSOM RD	9	37
GRANITE BAY VETERINARY CLINIC	6500 DOUGLAS BLVD	11	38
AAA MOBILE OIL CHANGE SERVICE	7460 DOUGLAS BLVD	12	38
REX HALL	7792 LAKESHORE DR	15	41
DAVID KIENER	8940 WAGON WY	16	41
SOUTH PLACER FIRE DISTRICT	6900 EUREKA ROAD	18	44
1X SO PLACER FIRE DIST/STA. #	***6900 EUREKA RD***	***18***	***45***
SAN JUAN WATER DISTRICT	9935 AURBURN- FOLSOM RD	21	50
ROSEVILLE WATER TREATMENT PLAN	***9595 BARTON RD***	***24***	***53***
SAN JUAN WATER DISTRICT	9935 AUBURN FOLSOM RD	27	58
SAN JUAN SUBURBAN WATER DIST	***9935 AUBURN FOLSOM RD***	***27***	***59***
SAN JUAN SUBURBAN WATER DIST	***9935 AUBURN FOLSOM RD***	***27***	***61***
DPR FOLSOM LAKES	7806 FOLSOM AUBURN RD	28	64
U S BUREAU OF RECLAMATION	7794 FOLSOM DAM RD	28	73
ANDY BOHART	7794 FOLSOM DAM RD	28	75
DOUGLAS REKERS DDS	***8008 FOLSOM AUBURN RD***	***28***	***77***
ZACH ENTERPRISES	410 DANIELLE	31	81
IRVIN BINGHEM	321 GREEN VALLEY RD	32	82
GREEN VALLEY GAS & FOOD	***369 GREEN VALLEY RD***	***32***	***82***
GREEN VALLEY TIRE AND BRAKE	390 GREEN VALLEY RD	32	87
BROTHERS BOATS	***7450 FOLSOM AUBURN RD***	***34***	***90***
JENNIFER BRINITZER	9824 OAK PLACE WEST	36	96
CITY OF FOLSOM/SOLID WASTE DIV	***560 E NATOMA ST***	***38***	***105***
FOLSOM COMMUNITY CORRECTIONAL	570 E NATOMA ST	39	118
CALIFORNIA DEPT FOOD & AGRIC	***600 E NATOMA***	***39***	***119***
CITY OF FOLSOM WATER TREATMENT	***194 RANDALL DR***	***44***	***124***
BLANCHE SPRENTZ ELEMENTARY SCH	249 FLOWER DR	47	127

EXECUTIVE SUMMARY

Please refer to the end of the findings report for unmapped orphan sites due to poor or inadequate address information.

MAP FINDINGS SUMMARY

Database	Total Plotted
FEDERAL RECORDS	
NPL	0
Proposed NPL	0
Delisted NPL	0
NPL RECOVERY	0
CERCLIS	0
CERC-NFRAP	0
CORRACTS	0
RCRA TSD	0
RCRA Lg. Quan. Gen.	0
RCRA Sm. Quan. Gen.	5
ERNS	10
HMIRS	0
US ENG CONTROLS	0
US INST CONTROL	0
DOD	0
FUDS	0
US BROWNFIELDS	0
CONSENT	0
ROD	0
UMTRA	0
ODI	0
TRIS	0
TSCA	0
FTTS	1
SSTS	1
PADS	0
MLTS	0
MINES	0
FINDS	14
RAATS	0
STATE AND LOCAL RECORDS	
AWP	0
Cal-Sites	0
CA Bond Exp. Plan	0
NFA	1
NFE	0
REF	0
SCH	0
Toxic Pits	0
State Landfill	1
CA WDS	1
WMUDS/SWAT	0
Cortese	9
SWRCY	1
LUST	7
CA FID UST	9

MAP FINDINGS SUMMARY

Database	Total Plotted
SLIC	1
Sacramento Co. CS	7
UST	2
HIST UST	15
AST	4
PLACER CO. MS	23
SWEEPS UST	16
CHMIRS	9
Notify 65	0
DEED	1
VCP	1
DRYCLEANERS	0
WIP	0
CDL	2
Sacramento Co. ML	22
HAZNET	42
EMI	0

TRIBAL RECORDS

INDIAN RESERV	0
INDIAN LUST	0
INDIAN UST	0

EDR PROPRIETARY RECORDS

Manufactured Gas Plants	0

NOTES:

Sites may be listed in more than one database

1 **METRO PCS #135 (MADRID BOULDER)** **CA PLACER CO. MS** **S106534249**
6525 BOULDER RD **N/A**
GRANITE BAY, CA 95746

Placer MS:
Facility ID: PR0009979
District Code: 50
Program Elements: 2105
Facility Status: 1

Facility ID: PR0009980
District Code: 50
Program Elements: 2115
Facility Status: 1

---

2 **EMC MORTGAGE COMPANY** **HAZNET** **S103668398**
6590 AUBURN FOLSOM RD **N/A**
LOOMIS, CA 95650

HAZNET:
Gepaid: CAC001057384
TSD EPA ID: CAT080022148
Gen County: Placer
Tsd County: San Bernardino
Tons: .1251
Facility Address 2: Not reported
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Transfer Station
Contact: EMC MORTGAGE COMPANY
Telephone: (000) 000-0000
Mailing Name: Not reported
Mailing Address: C-O TOM DABES LYON REALTY
FAIR OAKS, CA 95628
County Placer

---

3 **HIDDEN VALLEY MAINTENANCE YARD** **LUST** **S101307938**
7077 PINE GATE WAY **Cortese** **N/A**
LOOMIS, CA 95650

State LUST:
Cross Street: Not reported
Qty Leaked: Not reported
Case Number Not reported
Reg Board: Not reported
Chemical: Gasoline
Lead Agency: Local Agency
Local Agency : 31000
Case Type: Soil only
Status: **Case Closed**
Review Date: 1991-07-09 00:00:00
Confirm Leak: 1991-07-09 00:00:00
Workplan: Not reported
Prelim Assess: Not reported
Pollution Char: Not reported
Remed Plan: Not reported
Remed Action: Not reported
Monitoring: Not reported
Close Date: 1991-11-22 00:00:00
Release Date: Not reported
Cleanup Fund Id : Not reported
Discover Date : Not reported
Enforcement Dt : 1965-01-01 00:00:00
Enf Type: None Taken

HIDDEN VALLEY MAINTENANCE YARD (Continued) **S101307938**

Enter Date : Not reported
Funding: Not reported
Staff Initials: DAV
How Discovered: Not reported
How Stopped: Not reported
Interim : Not reported
Leak Cause: Not reported
Leak Source: Not reported
MTBE Date : Not reported
Max MTBE GW : Not reported
MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Priority: Low priority. Priority ranking can change over time.
Local Case # : Not reported
Beneficial: Not reported
Staff : PRS
GW Qualifier : Not reported
Max MTBE Soil : Not reported
Soil Qualifier : Not reported
Hydr Basin #: UNNAMED BASIN
Operator : Not reported
Oversight Prgm: LUST
Review Date : 1998-09-02 00:00:00
Stop Date : Not reported
Work Suspended :No
Responsible Party HIDDEN VALLEY HOMEOWNERS ASSOC
RP Address: Not reported
Global Id: T0606100115
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 1
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary : Not reported

LUST Region 5:
Substance: GASOLINE
Case Type: Soil only
Program: LUST
Staff Initials: PRS Case Number: 310139
Status: Case Closed
MTBE Code: N/A
Lead Agency: Local

CORTESE:
Region: CORTESE
Fac Address 2: Not reported

3 **HIDDEN VALLEY COMMUNITY ASSOC.** **CA PLACER CO. MS** **S101331541**
7077 PINE GATE WAY **N/A**
LOOMIS, CA 95650

Placer MS:
Facility ID: PR0004387
District Code: 11
Program Elements: 2350
Facility Status: 1

---

3 **HVCA EQUIPMENT YARD** **HIST UST** **U001613259**
7077 PINEGATE WAY **SWEEPS UST** **N/A**
LOOMIS, CA 95650

UST HIST:
Facility ID: 49299
Total Tanks: 1
Owner Address: 7072 PINEGATE WAY
LOOMIS, CA 95650
Tank Used for: PRODUCT
Tank Num: 1
Tank Capacity: 00000500
Type of Fuel: REGULAR
Leak Detection: None
Contact Name: FARL GRUNDY
Facility Type: Gas Station
Owner Name: HIDDEN VALLEY COMMUNITY ASSOC
Region: STATE
Container Num: 1
Year Installed: 1977
Tank Construction: 12 gauge
Telephone: (916) 791-4978
Other Type: Not reported

SWEEPS:
Status : A
Comp Number : 49299
Number : 9
Board Of Equalization : 44-017228
Ref Date : 07-01-85
Act Date : Not reported
Created Date : 02-29-88
Tank Status : A
Owner Tank Id : 1
Swrcb Tank Id : 31-000-049299-000001
Actv Date : 07-01-85
Capacity : 500
Tank Use : M.V. FUEL
Stg : P
Content : LEADED
Number Of Tanks : 1

---

4 **STATION #3** **CA PLACER CO. MS** **S106447381**
7047 LAIRD RD **SWEEPS UST** **N/A**
LOOMIS, CA 95678

Placer MS:
Facility ID: PR0003493
District Code: 19
Program Elements: 2105
Facility Status: 3

SWEEPS:
Status : A
Comp Number : 13519
Number : 4
Board Of Equalization : Not reported
Ref Date : 07-01-85

STATION #3 (Continued) **S106447381**

Act Date :	Not reported
Created Date :	02-29-88
Tank Status :	A
Owner Tank Id :	5
Swrcb Tank Id :	31-000-013519-000001
Actv Date :	07-01-85
Capacity :	550
Tank Use :	M.V. FUEL
Stg :	P
Content :	LEADED
Number Of Tanks :	2
Status :	A
Comp Number :	13519
Number :	4
Board Of Equalization :	Not reported
Ref Date :	07-01-85
Act Date :	Not reported
Created Date :	02-29-88
Tank Status :	A
Owner Tank Id :	6
Swrcb Tank Id :	31-000-013519-000002
Actv Date :	07-01-85
Capacity :	550
Tank Use :	M.V. FUEL
Stg :	P
Content :	DIESEL
Number Of Tanks :	Not reported

---

4 **STATION #3** **HIST UST** **U001613878**
7047 LAIRD ROAD **N/A**
LOOMIS, CA 95678

UST HIST:

Facility ID:	13519	Owner Name:	SOUTH PLACER FIRE DISTRICT
Total Tanks:	2	Region:	STATE
Owner Address:	6900 EUREKA RD ROSEVILLE, CA 95678		
Tank Used for:	PRODUCT		
Tank Num:	1	Container Num:	5
Tank Capacity:	00000550	Year Installed:	1962
Type of Fuel:	REGULAR	Tank Construction:	Not Reported
Leak Detection:	Stock Inventor		
Contact Name:	LT. ELLINGFORD	Telephone:	(916) 791-7059
Facility Type:	Other	Other Type:	FIRE STATION
Facility ID:	13519	Owner Name:	SOUTH PLACER FIRE DISTRICT
Total Tanks:	2	Region:	STATE
Owner Address:	6900 EUREKA RD ROSEVILLE, CA 95678		
Tank Used for:	PRODUCT		
Tank Num:	2	Container Num:	6
Tank Capacity:	00000550	Year Installed:	1962
Type of Fuel:	DIESEL	Tank Construction:	Not Reported
Leak Detection:	Stock Inventor		
Contact Name:	LT. ELLINGFORD	Telephone:	(916) 791-7059
Facility Type:	Other	Other Type:	FIRE STATION

5 **BOB ERICKSON** **HAZNET** **S105086750**
7500 MORNINGSIDE DR **N/A**
GRANITE BAY, CA 95746

HAZNET:

Gepaid:	CAC002284369
TSD EPA ID:	CAD009466392
Gen County:	Placer
Tsd County:	7
Tons:	1.5000
Facility Address 2:	Not reported
Waste Category:	Other empty containers 30 gallons or more
Disposal Method:	Recycler
Contact:	BOB ERICKSON
Telephone:	(916) 791-0758
Mailing Name:	Not reported
Mailing Address:	7500 MORNINGSIDE DR GRANITE BAY, CA 95746
County	Placer

Gepaid:	CAC002284369
TSD EPA ID:	CAD044003556
Gen County:	Placer
Tsd County:	Yolo
Tons:	1.8765
Facility Address 2:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Transfer Station
Contact:	BOB ERICKSON
Telephone:	(916) 791-0758
Mailing Name:	Not reported
Mailing Address:	7500 MORNINGSIDE DR GRANITE BAY, CA 95746
County	Placer

---

6 **CDL** **S107536348**
7855 MORNING SIDE DRIVE **N/A**
GRANITE BAY, CA 95678

CA CDL:

Facility ID:	199708027
Date:	08/12/97
Abandoned Waste:	Not reported
Illegal Drug Lab:	Yes
Mobile Lab:	Not reported

---

7 **ROCK CREEK MOBILE HOME PARK** **CA PLACER CO. MS** **S105708903**
8045 MORNINGSIDE DR **N/A**
AUBURN, CA 95650

Placer MS:

Facility ID:	PR0003410
District Code:	10
Program Elements:	2105
Facility Status:	2

8 **VARAKUTA, BEN** **CA PLACER CO. MS** **S106534300**
8377 OAK KNOLL DR **N/A**
GRANITE BA, CA 95650

Placer MS:
Facility ID: PR0009886
District Code: 11
Program Elements: 2301
Facility Status: 2

---

9 **8779 AUBURN FOLSOM RD** **ERNS** **92251437**
8779 AUBURN FOLSOM RD **N/A**
ROSEVILLE, CA 95661

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

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9 **JACK-LINSSEN ENTERPRISES LLC** **HAZNET** **S107146731**
8769 AUBURN-FOLSOM RD **N/A**
GRANITE BAY, CA 95746

HAZNET:
Gepaid: CAL000195341
TSD EPA ID: CAL000175030
Gen County: Placer
Tsd County: Placer
Tons: 0.02
Facility Address 2: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Transfer Station
Contact: JEANETTE KRANTZ
Telephone: (916) 791-4719
Mailing Name: Not reported
Mailing Address: 8769 AUBURN-FOLSOM RD
GRANITE BAY, CA 95746
County Placer

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9 **GRANITE BAY MEDICAL CINIC** **HAZNET** **S103674875**
8757 AUBURN-FOLSOM RD **N/A**
GRANITE BAY, CA 95746

HAZNET:
Gepaid: CAL000081370
TSD EPA ID: NVD981639826
Gen County: Placer
Tsd County: 99
Tons: .0790
Facility Address 2: Not reported
Waste Category: Alkaline solution (pH <UN-> 12.5) with metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc)
Disposal Method: Recycler
Contact: STEPHEN SMOOKLER MD INC
Telephone: (000) 000-0000
Mailing Name: Not reported
Mailing Address: 8757 AUBURN FOLSOM RD

GRANITE BAY MEDICAL CINIC (Continued) **S103674875**

GRANITE BAY, CA 95746
County: Placer

Gepaid: CAL000081370
TSD EPA ID: NVD981639826
Gen County: Placer
Tsd County: 99
Tons: .0000
Facility Address 2: Not reported
Waste Category:
Disposal Method: Not reported
Contact: STEPHEN SMOOKLER MD INC
Telephone: (000) 000-0000
Mailing Name: Not reported
Mailing Address: 8757 AUBURN FOLSOM RD
GRANITE BAY, CA 95746
County: Placer

Gepaid: CAL000081370
TSD EPA ID: NVD981639826
Gen County: Placer
Tsd County: 99
Tons: .0000
Facility Address 2: Not reported
Waste Category:
Disposal Method: ***
Contact: STEPHEN SMOOKLER MD INC
Telephone: (000) 000-0000
Mailing Name: Not reported
Mailing Address: 8757 AUBURN FOLSOM RD
GRANITE BAY, CA 95746
County: Placer

---

9 **CHMIRS** **S105677947**

7200 FULLER ROAD **N/A**
GRANITE BAY, CA

CHMIRS:
OES Control Number: 01-0053
Extent of Release: Not reported
Property Use: Not reported
Incident Date: Not reported
Date Completed: Not reported
Time Completed : Not reported
Agency Id Number : Not reported
Agency Incident Number : Not reported
OES Incident Number : 01-0053
Time Notified : Not reported
Surrounding Area : Not reported
Estimated Temperature : Not reported
Property Management : Not reported
More Than Two Substances Involved? : Not reported
Special Studies 1 : Not reported
Special Studies 2 : Not reported
Special Studies 3 : Not reported
Special Studies 4 : Not reported
Special Studies 5 : Not reported
Special Studies 6 : Not reported
Resp Agncy Personel # Of Decontaminated : Not reported
Others Number Of Decontaminated : Not reported

(Continued) **S105677947**

Others Number Of Injuries :	Not reported
Others Number Of Fatalities :	Not reported
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	Not reported
Report Date :	Not reported
Comments :	Not reported
Facility Telephone Number :	Not reported
Waterway Involved :	No
Waterway :	Not reported
Spill Site :	Not reported
Cleanup By :	Fire Dept.
Containment :	Not reported
What Happened :	Not reported
Type :	Not reported
Other :	Not reported
Substance :	Unknown Oil;;;
Quantity Released :	
E Date :	Not reported
Contained :	Yes
Site Type :	Residence
Evacuations :	0
Num Of Injuries :	0
Num Of Fatalities :	0
Date/Time :	Not reported
Year :	2001
Agency :	Placer CO OES
BBLS :	0
Cups :	0
CUFT :	0
Gallons :	15
Grams :	0
Pounds :	0
Liters :	0
Ounces :	0
Pints :	0
Quarts :	0
Sheen :	0
Tons :	0
Unknown :	0
Description :	Looks like it could be used motor oil, someone sat the unknown oil containers next to a dumpster then another layed a Christmas tree nearby and the container got bumped spilling the oil.
Incident date :	1/3/200112:00:00 AM
Admin Agency :	Placer County Health Department
OES date :	Not reported
OES time :	Not reported
OES notification :	1/3/200104:17:44 PM
Amount :	Not reported

9 **CHMIRS** **S105648114**
N/A

FULLER DR. / AUBURN/FOLSOM RD
GRANITE BAY, CA

CHMIRS:

OES Control Number:	97-4927
Extent of Release:	Not reported
Property Use:	Not reported
Incident Date:	Not reported
Date Completed: Not reported	
Time Completed :	Not reported
Agency Id Number :	Not reported
Agency Incident Number :	Not reported
OES Incident Number :	97-4927
Time Notified :	Not reported
Surrounding Area :	Not reported
Estimated Temperature :	Not reported
Property Management :	Not reported
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Resp Agncy Personel # Of Decontaminated :	Not reported
Others Number Of Decontaminated :	Not reported
Others Number Of Injuries :	Not reported
Others Number Of Fatalities :	Not reported
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	Not reported
Report Date :	Not reported
Comments :	Not reported
Facility Telephone Number :	Not reported
Waterway Involved :	No
Waterway :	Not reported
Spill Site :	Not reported
Cleanup By :	Contractor
Containment :	Not reported
What Happened :	Not reported
Type :	Not reported
Other :	Not reported
Substance :	UNKNOWN
Quantity Released :	
E Date :	Not reported
Contained :	Yes
Site Type :	Other
Evacuations :	0
Num Of Injuries :	0
Num Of Fatalities :	0
Date/Time :	Not reported
Year :	1997
Agency :	CO OES
BBLS :	0

(Continued) **S105648114**

Cups :	0
CUFT :	0
Gallons :	17
Grams :	0
Pounds :	0
Liters :	0
Ounces :	0
Pints :	0
Quarts :	0
Sheen :	0
Tons :	0
Unknown :	0
Description :	SUBSTANCE LOCATED AND REPORTED BY PRIVATE CITIZEN.
Incident date :	12/13/199712:00:00 AM
Admin Agency :	Placer County Health Department
OES date :	Not reported
OES time :	Not reported
OES notification :	12/13/199710:47:02 AM
Amount :	Not reported

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9 **CAVITT (WILLMA) JUNIOR HIGH SCHOOL** **FINDS** **1008259844**
7200 FULLER DR. **110021517615**
GRANITE BAY, CA 95746

FINDS:
Other Pertinent Environmental Activity Identified at Site:
NATIONAL CENTER FOR EDUCATION STATISTICS

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9 **ARCO #2140** **Cortese** **S105025925**
8555 AUBURNFOLSOM **N/A**
ROSEVILLE, CA 95661

CORTESE:

Region:	CORTESE
Fac Address 2:	Not reported

---

9 **BUDS GIANITE BAY CLEANERS** **RCRA-SQG** **1000374882**
8613 AUBURN FOLSOM BLVD **FINDS** **CAD981638745**
ROSEVILLE, CA 95678 **HAZNET**

BUDS GIANITE BAY CLEANERS (Continued) **1000374882**

RCRAInfo:
Owner: KITCHELL DAVE
(415) 555-1212
EPA ID: CAD981638745

Contact: Not reported

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

HAZNET:
Gepaid: CAD981638745
TSD EPA ID: CAT000613950
Gen County: Placer
Tsd County: Sacramento
Tons: .1950
Facility Address 2: Not reported
Waste Category: Liquids with halogenated organic compounds > 1000 mg/l
Disposal Method: Transfer Station
Contact: DAVID/CYNTHIA KITCHELL
Telephone: (916) 782-1564
Mailing Name: Not reported
Mailing Address: 8613 AUBURN FOLSOM RD
GRANITE BAY, CA 95746
County Placer

Gepaid: CAD981638745
TSD EPA ID: CA0000084517
Gen County: Placer
Tsd County: Sacramento
Tons: .5475
Facility Address 2: Not reported
Waste Category: Liquids with halogenated organic compounds > 1000 mg/l
Disposal Method: Transfer Station
Contact: DAVID/CYNTHIA KITCHELL
Telephone: (916) 782-1564
Mailing Name: Not reported
Mailing Address: 8613 AUBURN FOLSOM RD
GRANITE BAY, CA 95746
County Placer

Gepaid: CAD981638745
TSD EPA ID: CAT000613893
Gen County: Placer
Tsd County: Los Angeles
Tons: .4100
Facility Address 2: Not reported
Waste Category: Liquids with halogenated organic compounds > 1000 mg/l
Disposal Method: Transfer Station
Contact: DAVID/CYNTHIA KITCHELL
Telephone: (916) 782-1564
Mailing Name: Not reported
Mailing Address: 8613 AUBURN FOLSOM RD

BUDS GIANITE BAY CLEANERS (Continued) **1000374882**

GRANITE BAY, CA 95746
County: Placer

Gepaid: CAD981638745
TSD EPA ID: CAT000613893
Gen County: Placer
Tsd County: Los Angeles
Tons: .1950
Facility Address 2: Not reported
Waste Category: Liquids with halogenated organic compounds > 1000 mg/l
Disposal Method: Not reported
Contact: DAVID/CYNTHIA KITCHELL
Telephone: (916) 782-1564
Mailing Name: Not reported
Mailing Address: 8613 AUBURN FOLSOM RD
GRANITE BAY, CA 95746
County: Placer

Gepaid: CAD981638745
TSD EPA ID: CAT000613893
Gen County: Placer
Tsd County: Los Angeles
Tons: .4875
Facility Address 2: Not reported
Waste Category: Liquids with halogenated organic compounds > 1000 mg/l
Disposal Method: Transfer Station
Contact: DAVID/CYNTHIA KITCHELL
Telephone: (916) 782-1564
Mailing Name: Not reported
Mailing Address: 8613 AUBURN FOLSOM RD
GRANITE BAY, CA 95746
County: Placer

Click this hyperlink while viewing on your computer to access
4 additional CA HAZNET record(s) in the EDR Site Report.

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9 **BP WEST COAST PRODUCTS LLC 02140** **HAZNET** **S102285799**
8555 AUBURN FOLSOM RD **CA PLACER CO. MS** **N/A**
GRANITE BAY, CA 95661

HAZNET:
Gepaid: CAL000244235
TSD EPA ID: Not reported
Gen County: Placer
Tsd County: Los Angeles
Tons: 0.41
Facility Address 2: Not reported
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Recycler
Contact: JACK OMAN
Telephone: (714) 670-5402
Mailing Name: Not reported
Mailing Address: PO BOX 6038
ARTESIA, CA 90702 - 6038
County: Not reported

Placer MS:
Facility ID: PR0001091
District Code: 17
Program Elements: 2304

BP WEST COAST PRODUCTS LLC 02140 (Continued) **S102285799**

Facility Status: 1

Facility ID: PR0003007
District Code: 17
Program Elements: 2114
Facility Status: 1

Facility ID: PR0004206
District Code: 17
Program Elements: 2350
Facility Status: 1

Facility ID: PR0006594
District Code: 17
Program Elements: 2115
Facility Status: 1

Facility ID: PR0008542
District Code: 17
Program Elements: 2268
Facility Status: 1

---

9 **T MARC KNUTSEN** **HIST UST** **U001613883**
8555 AUBURN FOLSOM RD **N/A**
ROSEVILLE, CA 95678

UST HIST:

Facility ID:	27018	Owner Name:	ARCO PETROLEUM PRODUCTS CO.
Total Tanks:	4	Region:	STATE
Owner Address:	515 SOUTH FLOWER STREET LOS ANGELES, CA 90071		
Tank Used for:	PRODUCT		
Tank Num:	1	Container Num:	0000000001
Tank Capacity:	00006000	Year Installed:	1968
Type of Fuel:	06	Tank Construction:	0000240 inches
Leak Detection:	Stock Inventor		
Contact Name:	Not reported	Telephone:	(000) 000-0000
Facility Type:	Gas Station	Other Type:	Not reported

Facility ID:	27018	Owner Name:	ARCO PETROLEUM PRODUCTS CO.
Total Tanks:	4	Region:	STATE
Owner Address:	515 SOUTH FLOWER STREET LOS ANGELES, CA 90071		
Tank Used for:	PRODUCT		
Tank Num:	2	Container Num:	0000000002
Tank Capacity:	00006000	Year Installed:	1968
Type of Fuel:	06	Tank Construction:	0000240 inches
Leak Detection:	Stock Inventor		
Contact Name:	Not reported	Telephone:	(000) 000-0000
Facility Type:	Gas Station	Other Type:	Not reported

Facility ID:	27018	Owner Name:	ARCO PETROLEUM PRODUCTS CO.
Total Tanks:	4	Region:	STATE
Owner Address:	515 SOUTH FLOWER STREET LOS ANGELES, CA 90071		
Tank Used for:	PRODUCT		
Tank Num:	3	Container Num:	0000000003
Tank Capacity:	00006000	Year Installed:	1968
Type of Fuel:	06	Tank Construction:	0000240 inches

T MARC KNUTSEN (Continued) **U001613883**

Leak Detection: Stock Inventor
Contact Name: Not reported
Telephone: (000) 000-0000
Facility Type: Gas Station
Other Type: Not reported

Facility ID: 27018
Owner Name: ARCO PETROLEUM PRODUCTS CO.
Total Tanks: 4
Region: STATE
Owner Address: 515 SOUTH FLOWER STREET
LOS ANGELES, CA 90071
Tank Used for: PRODUCT
Tank Num: 4
Container Num: 0000000004
Tank Capacity: 00006000
Year Installed: 1971
Type of Fuel: 06
Tank Construction: 0000240 inches
Leak Detection: Stock Inventor
Contact Name: Not reported
Telephone: (000) 000-0000
Facility Type: Gas Station
Other Type: Not reported

---

9 **ARCO AM/PM #2140** **HIST UST** **U001613811**
8555 AUBURN FOLSOM RD **N/A**
ROSEVILLE, CA 95678

UST HIST:

Facility ID: 23487
Owner Name: ATLANTIC RICHFIELD CO.
Total Tanks: 4
Region: STATE
Owner Address: P.O. BOX 5811
SAN MATEO, CA 94402
Tank Used for: PRODUCT
Tank Num: 1
Container Num: #1
Tank Capacity: 00006000
Year Installed: 1968
Type of Fuel: REGULAR
Tank Construction: Not Reported
Leak Detection: Not reported
Contact Name: MARK KNUTSEN
Telephone: (916) 791-3343
Facility Type: Gas Station
Other Type: Not reported

Facility ID: 23487
Owner Name: ATLANTIC RICHFIELD CO.
Total Tanks: 4
Region: STATE
Owner Address: P.O. BOX 5811
SAN MATEO, CA 94402
Tank Used for: PRODUCT
Tank Num: 2
Container Num: #2
Tank Capacity: 00006000
Year Installed: Not reported
Type of Fuel: REGULAR
Tank Construction: Not Reported
Leak Detection: Not reported
Contact Name: MARK KNUTSEN
Telephone: (916) 791-3343
Facility Type: Gas Station
Other Type: Not reported

Facility ID: 23487
Owner Name: ATLANTIC RICHFIELD CO.
Total Tanks: 4
Region: STATE
Owner Address: P.O. BOX 5811
SAN MATEO, CA 94402
Tank Used for: PRODUCT
Tank Num: 3
Container Num: #3
Tank Capacity: 00006000
Year Installed: 1968
Type of Fuel: PREMIUM
Tank Construction: Not Reported
Leak Detection: Not reported
Contact Name: MARK KNUTSEN
Telephone: (916) 791-3343
Facility Type: Gas Station
Other Type: Not reported

Facility ID: 23487
Owner Name: ATLANTIC RICHFIELD CO.
Total Tanks: 4
Region: STATE

ARCO AM/PM #2140 (Continued) **U001613811**

Owner Address:	P.O. BOX 5811 SAN MATEO, CA 94402		
Tank Used for:	PRODUCT		
Tank Num:	4	Container Num:	4
Tank Capacity:	00006000	Year Installed:	1971
Type of Fuel:	UNLEADED	Tank Construction:	Not Reported
Leak Detection:	Not reported		
Contact Name:	MARK KNUTSEN	Telephone:	(916) 791-3343
Facility Type:	Gas Station	Other Type:	Not reported

---

9 **ARCO FACILITY #2140** **CA FID UST** **S101627997**
8555 AUBURN FOLSOM RD **SWEEPS UST** **N/A**
ROSEVILLE, CA 95661

FID:

Facility ID:	31000918	Regulate ID:	00023487
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	(916) 791-3343
Mail To:	Not reported 17315 STUDEBAKER RD ROSEVILLE, CA 95678		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

SWEEPS:

Status :	Not reported
Comp Number :	23487
Number :	Not reported
Board Of Equalization :	44-000506
Ref Date :	Not reported
Act Date :	Not reported
Created Date :	Not reported
Tank Status :	Not reported
Owner Tank Id :	Not reported
Swrcb Tank Id :	31-000-023487-000001
Actv Date :	Not reported
Capacity :	6000
Tank Use :	M.V. FUEL
Stg :	PRODUCT
Content :	REG UNLEADED
Number Of Tanks :	5

Status :	Not reported
Comp Number :	23487
Number :	Not reported
Board Of Equalization :	44-000506
Ref Date :	Not reported
Act Date :	Not reported
Created Date :	Not reported
Tank Status :	Not reported
Owner Tank Id :	Not reported
Swrcb Tank Id :	31-000-023487-000002
Actv Date :	Not reported
Capacity :	6000
Tank Use :	M.V. FUEL

ARCO FACILITY #2140 (Continued) **S101627997**

Stg : PRODUCT
Content : REG UNLEADED
Number Of Tanks : Not reported

Status : Not reported
Comp Number : 23487
Number : Not reported
Board Of Equalization : 44-000506
Ref Date : Not reported
Act Date : Not reported
Created Date : Not reported
Tank Status : Not reported
Owner Tank Id : Not reported
Swrcb Tank Id : 31-000-023487-000003
Actv Date : Not reported
Capacity : 6000
Tank Use : M.V. FUEL
Stg : PRODUCT
Content : REG UNLEADED
Number Of Tanks : Not reported

Status : Not reported
Comp Number : 23487
Number : Not reported
Board Of Equalization : 44-000506
Ref Date : Not reported
Act Date : Not reported
Created Date : Not reported
Tank Status : Not reported
Owner Tank Id : Not reported
Swrcb Tank Id : 31-000-023487-000004
Actv Date : Not reported
Capacity : 6000
Tank Use : M.V. FUEL
Stg : PRODUCT
Content : PRM UNLEADED
Number Of Tanks : Not reported

Status : Not reported
Comp Number : 23487
Number : Not reported
Board Of Equalization : 44-000506
Ref Date : Not reported
Act Date : Not reported
Created Date : Not reported
Tank Status : Not reported
Owner Tank Id : Not reported
Swrcb Tank Id : 31-000-023487-000005
Actv Date : Not reported
Capacity : 500
Tank Use : OIL
Stg : WASTE
Content : WASTE OIL
Number Of Tanks : Not reported

Status : A
Comp Number : 23487

ARCO FACILITY #2140 (Continued) **S101627997**

Number : 1
Board Of Equalization : 44-000506
Ref Date : 06-25-93
Act Date : 03-14-94
Created Date : 02-29-88
Tank Status : A
Owner Tank Id : 1
Swrcb Tank Id : 31-000-023487-000006
Actv Date : 06-25-93
Capacity : 10000
Tank Use : M.V. FUEL
Stg : P
Content : REG UNLEADED
Number Of Tanks : 4

Status : A
Comp Number : 23487
Number : 1
Board Of Equalization : 44-000506
Ref Date : 06-25-93
Act Date : 03-14-94
Created Date : 02-29-88
Tank Status : A
Owner Tank Id : 2
Swrcb Tank Id : 31-000-023487-000007
Actv Date : 06-25-93
Capacity : 10000
Tank Use : M.V. FUEL
Stg : P
Content : REG UNLEADED
Number Of Tanks : Not reported

Status : A
Comp Number : 23487
Number : 1
Board Of Equalization : 44-000506
Ref Date : 06-25-93
Act Date : 03-14-94
Created Date : 02-29-88
Tank Status : A
Owner Tank Id : 3
Swrcb Tank Id : 31-000-023487-000008
Actv Date : 06-25-93
Capacity : 10000
Tank Use : M.V. FUEL
Stg : P
Content : REG UNLEADED
Number Of Tanks : Not reported

Status : A
Comp Number : 23487
Number : 1
Board Of Equalization : 44-000506
Ref Date : 06-25-93
Act Date : 03-14-94
Created Date : 02-29-88
Tank Status : A

ARCO FACILITY #2140 (Continued) **S101627997**

Owner Tank Id : 4
Swrcb Tank Id : 31-000-023487-000009
Actv Date : 06-25-93
Capacity : 10000
Tank Use : M.V. FUEL
Stg : P
Content : PRM UNLEADED
Number Of Tanks : Not reported

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9 **ARCO #2140, AM/PM GRANITE BAY** **UST** **U003937662**
8555 AUBURN FOLSOM RD **N/A**
GRANITE BAY, CA 95678

State UST:
Facility ID: FA0000721
Total Tanks: Not reported
Region: STATE
Local Agency: 31000

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9 **ARCO #2140** **LUST** **S104403237**
8555 AUBURN-FOLSOM RD **N/A**
GRANITE BAY, CA 95661

State LUST:
Cross Street: Not reported
Qty Leaked: Not reported
Case Number Not reported
Reg Board: Not reported
Chemical: Gasoline
Lead Agency: Regional Board
Local Agency : 31000
Case Type: Drinking Water Aquifer affected
Status: **Post remedial action monitoring**
Review Date: Not reported
Confirm Leak: Not reported
Workplan: Not reported
Prelim Assess: Not reported
Pollution Char: 1993-07-21 00:00:00
Remed Plan: 1993-07-21 00:00:00
Remed Action: Not reported
Monitoring: 2003-10-15 00:00:00
Close Date: Not reported
Release Date: Not reported
Cleanup Fund Id : 09565
Discover Date : Not reported
Enforcement Dt : 2000-08-16 00:00:00
Enf Type: None Taken
Enter Date : Not reported
Funding: Not reported
Staff Initials: DAV
How Discovered: Not reported
How Stopped: Not reported
Interim : Not reported
Leak Cause: Not reported
Leak Source: Not reported
MTBE Date : 2001-03-23 00:00:00
Max MTBE GW : 844.00 Parts per Billion
MTBE Tested: MTBE Detected. Site tested for MTBE & MTBE detected
Priority: High priority
Local Case # : Not reported
Beneficial: Not reported

ARCO #2140 (Continued) **S104403237**

Staff : PRS
GW Qualifier : =
Max MTBE Soil : Not reported
Soil Qualifier : Not reported
Hydr Basin #: SACRAMENTO VALLEY (5
Operator : Not reported
Oversight Prgm: LUST
Review Date : 2002-01-30 00:00:00
Stop Date : Not reported
Work Suspended : No
Responsible Party ARCO
RP Address: 2155 BASCOM AVE, CAMPBELL, CA 95008
Global Id: T0606100026
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 10
Mtbe Fuel: 1
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary : Not reported

LUST Region 5:
Substance: GASOLINE
Case Type: Drinking Water Aquifer affected
Program: LUST
Staff Initials: PRS Case Number: 310032
Status: Post remedial action monitoring
MTBE Code: 5
Lead Agency: Regional

---

9 **ARCO PRODUCTS COMPANY** **HAZNET** **S103674434**
8555 AUBURN FOLSOM RD **N/A**
ROSEVILLE, CA 95661

HAZNET:
Gepaid: CAL000009863
TSD EPA ID: CAD980883177
Gen County: Los Angeles
Tsd County: Kern
Tons: 2.1684
Facility Address 2: Not reported
Waste Category: Unspecified oil-containing waste
Disposal Method: Not reported
Contact: ATLANTIC RICHFIELD CORP
Telephone: (714) 670-5366
Mailing Name: Not reported
Mailing Address: PO BOX 6038
ARTESIA, CA 90702 - 6038
County Los Angeles

ARCO PRODUCTS COMPANY (Continued) **S103674434**

Gepaid: CAL000009863
TSD EPA ID: CAT080013352
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: .2293
Facility Address 2: Not reported
Waste Category: Unspecified oil-containing waste
Disposal Method: Recycler
Contact: ATLANTIC RICHFIELD CORP
Telephone: (714) 670-5366
Mailing Name: Not reported
Mailing Address: PO BOX 6038
ARTESIA, CA 90702 - 6038
County Los Angeles

Gepaid: CAL000009863
TSD EPA ID: CAT080013352
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 2.0850
Facility Address 2: Not reported
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Recycler
Contact: ATLANTIC RICHFIELD CORP
Telephone: (714) 670-5366
Mailing Name: Not reported
Mailing Address: PO BOX 6038
ARTESIA, CA 90702 - 6038
County Los Angeles

Gepaid: CAL000009863
TSD EPA ID: CAT080013352
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 1.0842
Facility Address 2: Not reported
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Recycler
Contact: ATLANTIC RICHFIELD CORP
Telephone: (714) 670-5366
Mailing Name: Not reported
Mailing Address: PO BOX 6038
ARTESIA, CA 90702 - 6038
County Los Angeles

Gepaid: CAL000009863
TSD EPA ID: CAT080013352
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 6.2966
Facility Address 2: Not reported
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Recycler
Contact: ATLANTIC RICHFIELD CORP
Telephone: (714) 670-5366
Mailing Name: Not reported
Mailing Address: PO BOX 6038
ARTESIA, CA 90702 - 6038

ARCO PRODUCTS COMPANY (Continued) **S103674434**

County Los Angeles

Click this hyperlink while viewing on your computer to access
5 additional CA HAZNET record(s) in the EDR Site Report.

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9 **JOSEPH D LOPEZ** **RCRA-SQG 1000984934**
6812 BRANDY CIRCLE **FINDS CAR000000430**
GRANITE BAY, CA 95746

RCRAInfo:
Owner: JOSEPH D LOPEZ
(916) 792-6592
EPA ID: CAR000000430

Contact: JOSEPH LOPEZ
(916) 792-6592

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

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9 **DOUGLAS BLVD/AUBURN AND FOLSOM** **ERNS 92258358**
DOUGLAS BLVD/AUBURN AND FOLSOM **N/A**
ROSEVILLE, CA

Click this hyperlink while viewing on your computer to access
additional ERNS detail in the EDR Site Report.

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9 **THE CORNER** **HIST UST U001613887**
6990 DOUGLAS BLVD **N/A**
ROSEVILLE, CA 95678

UST HIST:

Facility ID:	47943	Owner Name:	LEWIS K. UHLER & IAN H. HARRIS
Total Tanks:	4	Region:	STATE
Owner Address:	6990 DOUGLAS BLVD. ROSEVILLE, CA 95678		
Tank Used for:	PRODUCT		
Tank Num:	1	Container Num:	1
Tank Capacity:	00010000	Year Installed:	Not reported
Type of Fuel:	REGULAR	Tank Construction:	Not Reported
Leak Detection:	Visual, Stock Inventor		
Contact Name:	G. HICKS	Telephone:	(916) 791-1931
Facility Type:	Gas Station	Other Type:	Not reported

Facility ID:	47943	Owner Name:	LEWIS K. UHLER & IAN H. HARRIS
Total Tanks:	4	Region:	STATE
Owner Address:	6990 DOUGLAS BLVD. ROSEVILLE, CA 95678		
Tank Used for:	PRODUCT		

THE CORNER (Continued) **U001613887**

Tank Num: 2
Tank Capacity: 00010000
Type of Fuel: UNLEADED
Leak Detection: Visual, Stock Inventor
Contact Name: G. HICKS
Facility Type: Gas Station
Container Num: 2
Year Installed: Not reported
Tank Construction: Not Reported
Telephone: (916) 791-1931
Other Type: Not reported

Facility ID: 47943
Total Tanks: 4
Owner Address: 6990 DOUGLAS BLVD.
ROSEVILLE, CA 95678
Tank Used for: PRODUCT
Owner Name: LEWIS K. UHLER & IAN H. HARRIS
Region: STATE

Tank Num: 3
Tank Capacity: 00010000
Type of Fuel: PREMIUM
Leak Detection: Visual, Stock Inventor
Contact Name: G. HICKS
Facility Type: Gas Station
Container Num: 3
Year Installed: Not reported
Tank Construction: Not Reported
Telephone: (916) 791-1931
Other Type: Not reported

Facility ID: 47943
Total Tanks: 4
Owner Address: 6990 DOUGLAS BLVD.
ROSEVILLE, CA 95678
Tank Used for: PRODUCT
Owner Name: LEWIS K. UHLER & IAN H. HARRIS
Region: STATE

Tank Num: 4
Tank Capacity: 00004000
Type of Fuel: DIESEL
Leak Detection: Visual, Stock Inventor
Contact Name: G. HICKS
Facility Type: Gas Station
Container Num: 4
Year Installed: Not reported
Tank Construction: Not Reported
Telephone: (916) 791-1931
Other Type: Not reported

Facility ID: 9514
Total Tanks: 4
Owner Address: 6990 DOUGLAS BLVD.
ROSEVILLE, CA 95678
Tank Used for: PRODUCT
Owner Name: IAN H. HARRIS & LEWIS K. ULER
Region: STATE

Tank Num: 1
Tank Capacity: 00004000
Type of Fuel: DIESEL
Leak Detection: None
Contact Name: LYNN HARRIS, MGR.
Facility Type: Gas Station
Container Num: 04
Year Installed: Not reported
Tank Construction: Not Reported
Telephone: (916) 791-1931
Other Type: Not reported

Facility ID: 9514
Total Tanks: 4
Owner Address: 6990 DOUGLAS BLVD.
ROSEVILLE, CA 95678
Tank Used for: PRODUCT
Owner Name: IAN H. HARRIS & LEWIS K. ULER
Region: STATE

Tank Num: 2
Tank Capacity: 00010000
Type of Fuel: REGULAR
Leak Detection: None
Contact Name: LYNN HARRIS, MGR.
Facility Type: Gas Station
Container Num: 01
Year Installed: Not reported
Tank Construction: Not Reported
Telephone: (916) 791-1931
Other Type: Not reported

Facility ID: 9514
Total Tanks: 4
Owner Name: IAN H. HARRIS & LEWIS K. ULER
Region: STATE

THE CORNER (Continued) **U001613887**

Owner Address:	6990 DOUGLAS BLVD. ROSEVILLE, CA 95678		
Tank Used for:	PRODUCT		
Tank Num:	3	Container Num:	02
Tank Capacity:	00010000	Year Installed:	Not reported
Type of Fuel:	UNLEADED	Tank Construction:	Not Reported
Leak Detection:	None		
Contact Name:	LYNN HARRIS, MGR.	Telephone:	(916) 791-1931
Facility Type:	Gas Station	Other Type:	Not reported
Facility ID:	9514	Owner Name:	IAN H. HARRIS & LEWIS K. ULER
Total Tanks:	4	Region:	STATE
Owner Address:	6990 DOUGLAS BLVD. ROSEVILLE, CA 95678		
Tank Used for:	PRODUCT		
Tank Num:	4	Container Num:	03
Tank Capacity:	00010000	Year Installed:	Not reported
Type of Fuel:	PREMIUM	Tank Construction:	Not Reported
Leak Detection:	None		
Contact Name:	LYNN HARRIS, MGR.	Telephone:	(916) 791-1931
Facility Type:	Gas Station	Other Type:	Not reported

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9 **BEACON #642** **CA FID UST S101589721**
6990 DOUGLAS BLVD **SWEEPS UST N/A**
ROSEVILLE, CA 95661

FID:

Facility ID:	31000184	Regulate ID:	00009514
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	(916) 791-1931
Mail To:	Not reported 525 W 3RD ST ROSEVILLE, CA 95661		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

SWEEPS:

Status :	A
Comp Number :	9514
Number :	1
Board Of Equalization :	44-017046
Ref Date :	05-17-91
Act Date :	05-17-91
Created Date :	02-29-88
Tank Status :	A
Owner Tank Id :	642-1
Swrcb Tank Id :	31-000-009514-000001
Actv Date :	05-22-91
Capacity :	10000
Tank Use :	M.V. FUEL
Stg :	P
Content :	LEADED
Number Of Tanks :	4
Status :	A

BEACON #642 (Continued) **S101589721**

Comp Number : 9514
Number : 1
Board Of Equalization : 44-017046
Ref Date : 05-17-91
Act Date : 05-17-91
Created Date : 02-29-88
Tank Status : A
Owner Tank Id : 642-2
Swrcb Tank Id : 31-000-009514-000002
Actv Date : 05-22-91
Capacity : 10000
Tank Use : M.V. FUEL
Stg : P
Content : REG UNLEADED
Number Of Tanks : Not reported

Status : A
Comp Number : 9514
Number : 1
Board Of Equalization : 44-017046
Ref Date : 05-17-91
Act Date : 05-17-91
Created Date : 02-29-88
Tank Status : A
Owner Tank Id : 642-3
Swrcb Tank Id : 31-000-009514-000003
Actv Date : 05-22-91
Capacity : 10000
Tank Use : M.V. FUEL
Stg : P
Content : REG UNLEADED
Number Of Tanks : Not reported

Status : A
Comp Number : 9514
Number : 1
Board Of Equalization : 44-017046
Ref Date : 05-17-91
Act Date : 05-17-91
Created Date : 02-29-88
Tank Status : A
Owner Tank Id : 642-4
Swrcb Tank Id : 31-000-009514-000004
Actv Date : 05-22-91
Capacity : 4000
Tank Use : M.V. FUEL
Stg : P
Content : DIESEL
Number Of Tanks : Not reported

9 **USA GASOLINE CORPORATION FACILITY 3642** **FINDS 1007737777**
6990 DOUGLAS BLVD **HAZNET 110018973896**
GRANITE BAY, CA 95746

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAZARDOUS WASTE TRACKING SYSTEM-DATAMART

HAZNET:

Gepaid:	CAR000142240
TSD EPA ID:	CAD028409019
Gen County:	Placer
Tsd County:	Placer
Tons:	0.07
Facility Address 2:	Not reported
Waste Category:	Other organic solids
Disposal Method:	Transfer Station
Contact:	C MILLER/MGR USA GASOLINE CORP
Telephone:	(818) 865-9200
Mailing Name:	Not reported
Mailing Address:	30101 AGOURA CT STE 200
	AGOURA HILLS, CA 91301
County	Placer

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9 **USA GASOLINE #3642** **CA PLACER CO. MS S107138807**
6990 DOUGLAS BLVD **N/A**
GRANITE BA, CA 95746

Placer MS:

Facility ID:	PR0000398
District Code:	17
Program Elements:	2304
Facility Status:	1
Facility ID:	PR0003022
District Code:	17
Program Elements:	2114
Facility Status:	1
Facility ID:	PR0006600
District Code:	17
Program Elements:	2115
Facility Status:	1
Facility ID:	PR0008526
District Code:	17
Program Elements:	2268
Facility Status:	1

---

9 **BEACON #3642 (FORMER)** **HAZNET S101300278**
6990 DOUGLAS BLVD **LUST N/A**
GRANITE BAY, CA 95661 **Cortese**
CA PLACER CO. MS

State LUST:

Cross Street:	AUBURN-FOLSOM
Qty Leaked:	Not reported
Case Number	Not reported
Reg Board:	Not reported
Chemical:	Gasoline
Lead Agency:	Regional Board

BEACON #3642 (FORMER) (Continued) **S101300278**

Local Agency : 31000
Case Type: Drinking Water Aquifer affected
Status: Remedial action (cleanup) Underway
Review Date: Not reported
Confirm Leak: Not reported
Workplan: Not reported
Prelim Assess: Not reported
Pollution Char: Not reported
Remed Plan: Not reported
Remed Action: 2003-02-07 00:00:00
Monitoring: Not reported
Close Date: Not reported
Release Date: Not reported
Cleanup Fund Id : Not reported
Discover Date : Not reported
Enforcement Dt : 2000-10-20 00:00:00
Enf Type: WAR
Enter Date : Not reported
Funding: Not reported
Staff Initials: DAV
How Discovered: Not reported
How Stopped: Not reported
Interim : Not reported
Leak Cause: Not reported
Leak Source: Not reported
MTBE Date : 2001-01-12 00:00:00
Max MTBE GW : 94.00 Parts per Billion
MTBE Tested: MTBE Detected. Site tested for MTBE & MTBE detected
Priority: Low priority. Priority ranking can change over time.
Local Case # : Not reported
Beneficial: Not reported
Staff : PRS
GW Qualifier : =
Max MTBE Soil : Not reported
Soil Qualifier : Not reported
Hydr Basin #: SACRAMENTO VALLEY (5
Operator : ULTRAMAR INC
Oversight Prgm: LUST
Review Date : Not reported
Stop Date : Not reported
Work Suspended : No
Responsible Party ULTRAMAR
RP Address: 525 3RD ST W,HANFORD,CA 93230
Global Id: T0606100187
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 8
Mtbe Fuel: 1
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary : CO. HEALTH NOTICED EVIDENCE OF DIESEL OVERFILL AT TANK. SOIL BORINGS WERE DILLED AROUND THE TANK TO SHOW LOW LEVELS OF DIESEL CONTAM. IN SOIL & LIMITED EXTENT.

LUST Region 5:
Substance: GASOLINE
Case Type: Drinking Water Aquifer affected
Program: LUST

BEACON #3642 (FORMER) (Continued) **S101300278**

Staff Initials: PRS Case Number: 310233
Status: Remedial action (cleanup) Underway
MTBE Code: 3
Lead Agency: Regional

HAZNET:
Gepaid: CAL000252694
TSD EPA ID: Not reported
Gen County: Placer
Tsd County: San Bernardino
Tons: 0.04
Facility Address 2: Not reported
Waste Category: Other organic solids
Disposal Method: Transfer Station
Contact: ROBERT HOOVER
Telephone: (253) 896-8801
Mailing Name: Not reported
Mailing Address: 3450 S 344TH ST STE 100
AUBURN, WA 98001 - 5931
County Not reported

CORTESE:
Region: CORTESE
Fac Address 2: Not reported

Placer MS:
Facility ID: PR0004227
District Code: 17
Program Elements: 2350
Facility Status: 1

---

9 **ULTRAMAR INC 3642** **HAZNET** **S104578732**
6990 DOUGLAS BLVD **N/A**
ROSEVILLE, CA 95661

HAZNET:
Gepaid: CAL000129028
TSD EPA ID: CAD981402522
Gen County: Placer
Tsd County: Kern
Tons: .1876
Facility Address 2: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Not reported
Contact: ULTRA MAR INC
Telephone: (209) 583-3298
Mailing Name: Not reported
Mailing Address: 525 W 3RD ST
HANFORD, CA 93230 - 5016
County Placer

Gepaid: CAL000129028
TSD EPA ID: CAD981402522
Gen County: Placer
Tsd County: Kern
Tons: .5129
Facility Address 2: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Recycler
Contact: ULTRA MAR INC
Telephone: (209) 583-3298

ULTRAMAR INC 3642 (Continued) **S104578732**

Mailing Name: Not reported
Mailing Address: 525 W 3RD ST
HANFORD, CA 93230 - 5016
County Placer

Gepaid: CAL000129028
TSD EPA ID: Not reported
Gen County: Placer
Tsd County: San Bernardino
Tons: 0.25
Facility Address 2: Not reported
Waste Category: Other organic solids
Disposal Method: Transfer Station
Contact: DENNIS SMITH O & E SPECIALIST
Telephone: (559) 583-3398
Mailing Name: Not reported
Mailing Address: 685 W THIRD ST
HANFORD, CA 93230 - 5016
County Not reported

Gepaid: CAL000129028
TSD EPA ID: CAD009466392
Gen County: Placer
Tsd County: 7
Tons: 17.0000
Facility Address 2: Not reported
Waste Category: Other empty containers 30 gallons or more
Disposal Method: Recycler
Contact: ULTRA MAR INC
Telephone: (209) 583-3298
Mailing Name: Not reported
Mailing Address: 525 W 3RD ST
HANFORD, CA 93230 - 5016
County Placer

Gepaid: CAL000129028
TSD EPA ID: CAD044003556
Gen County: Placer
Tsd County: Yolo
Tons: 1.1467
Facility Address 2: Not reported
Waste Category: Tank bottom waste
Disposal Method: Transfer Station
Contact: ULTRA MAR INC
Telephone: (209) 583-3298
Mailing Name: Not reported
Mailing Address: 525 W 3RD ST
HANFORD, CA 93230 - 5016
County Placer

Click this hyperlink while viewing on your computer to access
1 additional CA HAZNET record(s) in the EDR Site Report.

9 **KEVEN R MILLS DDS** **HAZNET** **S105724188**
6910 DOUGLAS BLVD STE B **N/A**
GRANITE BAY, CA 95746

HAZNET:

Gepaid:	CAL000205615
TSD EPA ID:	Not reported
Gen County:	Placer
Tsd County:	Santa Clara
Tons:	Not reported
Facility Address 2:	Not reported
Waste Category:	
Disposal Method:	Recycler
Contact:	JENNIFER PATTANI/R D A
Telephone:	(916) 791-7227
Mailing Name:	Not reported
Mailing Address:	6910 DOUGLAS BLVD STE B GRANITE BAY, CA 95746
County	Not reported

Gepaid:	CAL000205615
TSD EPA ID:	Not reported
Gen County:	Placer
Tsd County:	Santa Clara
Tons:	Not reported
Facility Address 2:	Not reported
Waste Category:	
Disposal Method:	Treatment, Tank
Contact:	JENNIFER PATTANI/R D A
Telephone:	(916) 791-7227
Mailing Name:	Not reported
Mailing Address:	6910 DOUGLAS BLVD STE B GRANITE BAY, CA 95746
County	Not reported

Gepaid:	CAL000205615
TSD EPA ID:	Not reported
Gen County:	Placer
Tsd County:	Santa Clara
Tons:	0.03
Facility Address 2:	Not reported
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	Treatment, Tank
Contact:	JENNIFER PATTANI/R D A
Telephone:	(916) 791-7227
Mailing Name:	Not reported
Mailing Address:	6910 DOUGLAS BLVD STE B GRANITE BAY, CA 95746
County	Not reported

Gepaid:	CAL000205615
TSD EPA ID:	CAL000175030
Gen County:	Placer
Tsd County:	Placer
Tons:	0
Facility Address 2:	Not reported
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	Treatment, Tank
Contact:	JENNIFER PATTANI/R D A
Telephone:	(916) 791-7227
Mailing Name:	KEVEN R MILLS/OWNER

KEVEN R MILLS DDS (Continued) **S105724188**

Mailing Address: 6910 DOUGLAS BLVD STE B
GRANITE BAY, CA 95746
County Placer

Gepaid: CAL000205615
TSD EPA ID: CAL000212588
Gen County: Placer
Tsd County: Placer
Tons: Not reported
Facility Address 2: Not reported
Waste Category:
Disposal Method: Recycler
Contact: JENNIFER PATTANI/R D A
Telephone: (916) 791-7227
Mailing Name: KEVEN R MILLS/OWNER
Mailing Address: 6910 DOUGLAS BLVD STE B
GRANITE BAY, CA 95746
County Placer

Click this hyperlink while viewing on your computer to access
5 additional CA HAZNET record(s) in the EDR Site Report.

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9 **ROBERT WALLER** **HAZNET** **S105087274**
7150 DOUGLAS BLVD **N/A**
GRANITE BAY, CA 95746

HAZNET:
Gepaid: CAC002293681
TSD EPA ID: CAD981388952
Gen County: Placer
Tsd County: Shasta
Tons: 4.6354
Facility Address 2: Not reported
Waste Category: Asbestos-containing waste
Disposal Method: Disposal, Land Fill
Contact: ROBERT WALLER
Telephone: (916) 486-9802
Mailing Name: Not reported
Mailing Address: 4366 AUBURN BLVD
SACRAMENTO, CA 95841
County Placer

---

9 **GRANITE BAY AUTO PARTS** **CA PLACER CO. MS** **S104384548**
7110 DOUGLAS BLVD **N/A**
GRANITE B, CA 95746

Placer MS:
Facility ID: PR0007551
District Code: 15
Program Elements: 2106
Facility Status: 2

Facility ID: PR0007552
District Code: 15
Program Elements: 2115
Facility Status: 2

Facility ID: PR0008279
District Code: 15

GRANITE BAY AUTO PARTS (Continued) **S104384548**

Program Elements: 2270
Facility Status: 2

---

9 **BECK CHIROPRACTIC/GRANITE BAY OFFICE** **HAZNET** **S103669232**
6910 DOUGLAS BLVD. **N/A**
GRANITE BAY, CA 95746

HAZNET:

Gepaid: CAL000121640
TSD EPA ID: CA0000084517
Gen County: Placer
Tsd County: Sacramento
Tons: .0625
Facility Address 2: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Recycler
Contact: ALAN C. BECK
Telephone: (916) 369-8844
Mailing Name: Not reported
Mailing Address: 6910 DOUGLAS BLVD.
GRANITE BAY, CA 95746
County Placer

Gepaid: CAL000121640
TSD EPA ID: CA0000084517
Gen County: Placer
Tsd County: Sacramento
Tons: .1876
Facility Address 2: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Transfer Station
Contact: ALAN C. BECK
Telephone: (916) 369-8844
Mailing Name: Not reported
Mailing Address: 6910 DOUGLAS BLVD.
GRANITE BAY, CA 95746
County Placer

Gepaid: CAL000121640
TSD EPA ID: CA0000084517
Gen County: Placer
Tsd County: Sacramento
Tons: .1876
Facility Address 2: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Transfer Station
Contact: ALAN C. BECK
Telephone: (916) 369-8844
Mailing Name: Not reported
Mailing Address: 6910 DOUGLAS BLVD.
GRANITE BAY, CA 95746
County Placer

9 **RITE AID CORPORATION** **HAZNET** **S104566162**
7005 DOUGLAS BLVD **N/A**
ROSEVILLE, CA 95746

HAZNET:

Gepaid:	CAC001317120
TSD EPA ID:	CAT000646117
Gen County:	Placer
Tsd County:	Kings
Tons:	0.5
Facility Address 2:	Not reported
Waste Category:	Other organic solids
Disposal Method:	Disposal, Land Fill
Contact:	RITE AID CORPORATION
Telephone:	(000) 000-0000
Mailing Name:	Not reported
Mailing Address:	7005 DOUGLAS BLVD ROSEVILLE, CA 95746
County	Placer

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9 **CDL** **S107535827**
6981 DOUGLAS BLVD **N/A**
ROSEVILLE, CA 95630

CA CDL:

Facility ID:	200108042
Date:	08/04/01
Abandoned Waste:	Yes
Illegal Drug Lab:	Not reported
Mobile Lab:	Not reported

---

9 **WEIS RECYCLE CENTERS INC/RALEY #412** **SWRCY** **S107138329**
6847 DOUGLAS BLVD **N/A**
GRANITE BAY, CA 95746

CA SWRCY

Certification Status :	O
Facility Phone Number :	(916) 781-7845
Whether The Facility Is Grandfathered :	Not reported
Convenience Zone Where Faciltiy Located :	1569
Convenience Zone Where Faciltiy Located 2 :	3608
Convenience Zone Where Faciltiy Located 3 :	0
Convenience Zone Where Faciltiy Located 4 :	0
Convenience Zone Where Faciltiy Located 5 :	0
Convenience Zone Where Faciltiy Located 6 :	0
Convenience Zone Where Faciltiy Located 7 :	0
Aluminum Beverage Containers Redeemed :	AL
Glass Beverage Containers Redeemed :	GL
Plastic Beverage Containers Redeemed :	PL
Other mat beverage containers redeemed :	Not Accepted
Refillable Beverage Containers Redeemed :	Not Accepted
Date facility became certified :	04/14/04
Date facility began operating (no date indicates never operational) :	04/28/04
Date facility ceased operating (no date indicates still operating) :	/ /

9 **RALEYS DRUG CTR 492** **RCRA-SQG** **1000818946**
6845 DOUGLAS BLVD **CAD983648841**
ROSEVILLE, CA 95661

RCRAInfo:
Owner: RALEYS
(916) 373-3333
EPA ID: CAD983648841

Contact: LEE CHRISTENSEN
(916) 791-8011

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

---

9 **RALEY S #412** **FINDS** **1007739502**
6845 DOUGLAS BLVD **110019005324**
ROSEVILLE, CA 95661

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAZARDOUS WASTE TRACKING SYSTEM-DATAMART
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

---

9 **RALEY'S #412/492** **HAZNET** **S100943178**
6845 DOUGLAS BLVD **N/A**
ROSEVILLE, CA 95661

HAZNET:
Gepaid: CAD983648841
TSD EPA ID: CAD070148432
Gen County: Placer
Tsd County: 1
Tons: .1876
Facility Address 2: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Treatment, Incineration
Contact: RALEY'S A CALIFORNIA CORP
Telephone: (916) 373-3333
Mailing Name: Not reported
Mailing Address: PO BOX 15618
SACRAMENTO, CA 95852 - 1618
County Placer

Gepaid: CAD983648841
TSD EPA ID: CAD070148432
Gen County: Placer
Tsd County: 1
Tons: .4378
Facility Address 2: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Transfer Station
Contact: RALEY'S A CALIFORNIA CORP
Telephone: (916) 373-3333
Mailing Name: Not reported
Mailing Address: PO BOX 15618

RALEY'S #412/492 (Continued) **S100943178**

SACRAMENTO, CA 95852 - 1618
County: Placer

Gepaid: CAD983648841
TSD EPA ID: CAD070148432
Gen County: Placer
Tsd County: 1
Tons: .1876
Facility Address 2: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Not reported
Contact: RALEY'S A CALIFORNIA CORP
Telephone: (916) 373-3333
Mailing Name: Not reported
Mailing Address: PO BOX 15618
SACRAMENTO, CA 95852 - 1618
County: Placer

Gepaid: CAD983648841
TSD EPA ID: CAD070148432
Gen County: Placer
Tsd County: 1
Tons: 1.8765
Facility Address 2: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Recycler
Contact: RALEY'S A CALIFORNIA CORP
Telephone: (916) 373-3333
Mailing Name: Not reported
Mailing Address: PO BOX 15618
SACRAMENTO, CA 95852 - 1618
County: Placer

Gepaid: CAD983648841
TSD EPA ID: CAD070148432
Gen County: Placer
Tsd County: 1
Tons: .6671
Facility Address 2: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Treatment, Incineration
Contact: RALEY'S A CALIFORNIA CORP
Telephone: (916) 373-3333
Mailing Name: Not reported
Mailing Address: PO BOX 15618
SACRAMENTO, CA 95852 - 1618
County: Placer

Click this hyperlink while viewing on your computer to access
11 additional CA HAZNET record(s) in the EDR Site Report.

9 **LONGS DRUG STORE #526** **CA PLACER CO. MS** **S105211837**
8455 AUBURN FOLSOM RD **N/A**
GRAN, CA 95746

Placer MS:
Facility ID: PR0008557
District Code: 18
Program Elements: 2160
Facility Status: 1

Facility ID: PR0008558
District Code: 18
Program Elements: 2115
Facility Status: 1

Facility ID: PR0008570
District Code: 18
Program Elements: 2268
Facility Status: 1

---

9 **LONGS DRUGS STORE #526** **HAZNET** **S106091983**
8435 AUBURN-FOLSOM RD **N/A**
GRANITE BAY, CA 95746

HAZNET:
Gepaid: CAL000219446
TSD EPA ID: Not reported
Gen County: Placer
Tsd County: Solano
Tons: 1.16
Facility Address 2: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Not reported
Contact: RAQUEL KARNES/ENVIRON COORD
Telephone: (707) 745-1654
Mailing Name: Not reported
Mailing Address: 141 N CIVIC DR
WALNUT CREEK, CA 94596
County Not reported

---

9 **KIRBY, CHARLES R. & NORMA** **Cortese** **S105025924**
8380 AUBURN FOLSOM **N/A**
ROSEVILLE, CA 95678

CORTESE:
Region: CORTESE
Fac Address 2: Not reported

10 **METRO PCS #137 (HIDDEN LAKES)** **CA PLACER CO. MS** **S106534251**
7955 W HIDDEN LAKES DR **N/A**
GRAN, CA 95746

Placer MS:
Facility ID: PR0009985
District Code: 50
Program Elements: 2105
Facility Status: 1

Facility ID: PR0009986
District Code: 50
Program Elements: 2115
Facility Status: 1

---

11 **GRANITE BAY VETERINARY CLINIC** **HAZNET** **S103668211**
6500 DOUGLAS BLVD **N/A**
GRANITE BAY, CA 95746

HAZNET:
Gepaid: CAL000060324
TSD EPA ID: CA0000084517
Gen County: Placer
Tsd County: Sacramento
Tons: .0625
Facility Address 2: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Transfer Station
Contact: R MANSFIELD DVM/R POLLACK DVM/
Telephone: (916) 791-1143
Mailing Name: Not reported
Mailing Address: 6500 DOUGLAS BLVD
GRANITE BAY, CA 95746
County Placer

Gepaid: CAL000060324
TSD EPA ID: CA0000084517
Gen County: Placer
Tsd County: Sacramento
Tons: .1250
Facility Address 2: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Transfer Station
Contact: R MANSFIELD DVM/R POLLACK DVM/
Telephone: (916) 791-1143
Mailing Name: Not reported
Mailing Address: 6500 DOUGLAS BLVD
GRANITE BAY, CA 95746
County Placer

---

12 **AAA MOBILE OIL CHANGE SERVICE** **HAZNET** **S103671145**
7460 DOUGLAS BLVD **N/A**
GRANITE BAY, CA 95746

AAA MOBILE OIL CHANGE SERVICE (Continued) — **S103671145**

HAZNET:

Gepaid:	CAL000174149
TSD EPA ID:	CAD981402522
Gen County:	Placer
Tsd County:	Kern
Tons:	.0333
Facility Address 2:	Not reported
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	Not reported
Contact:	AAA ENTERPRISES
Telephone:	(000) 000-0000
Mailing Name:	Not reported
Mailing Address:	7460 DOUGLAS BLVD GRANITE BAY, CA 95746 - 9501
County	Placer

---

13 **8715 SPOONER CT** — **ERNS** — **98465977**
8715 SPOONER CT — **N/A**
GRANITE BAY, CA

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

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13 — **CHMIRS** — **S106392694**
8715 SPOONER CT — **N/A**
GRANITE BAY, CA 95901

CHMIRS:

OES Control Number:	98-5331
Extent of Release:	Not reported
Property Use:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Time Completed :	Not reported
Agency Id Number :	Not reported
Agency Incident Number :	Not reported
OES Incident Number :	98-5331
Time Notified :	Not reported
Surrounding Area :	Not reported
Estimated Temperature :	Not reported
Property Management :	Not reported
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Resp Agncy Personel # Of Decontaminated :	Not reported
Others Number Of Decontaminated :	Not reported
Others Number Of Injuries :	Not reported
Others Number Of Fatalities :	Not reported
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported

(Continued) **S106392694**

Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	Not reported
Report Date :	Not reported
Comments :	Not reported
Facility Telephone Number :	Not reported
Waterway Involved :	Yes
Waterway :	Creek
Spill Site :	Not reported
Cleanup By :	Reporting Party
Containment :	Not reported
What Happened :	Not reported
Type :	Not reported
Other :	Not reported
Substance :	Transformer Oil
Quantity Released :	
E Date :	Not reported
Contained :	Yes
Site Type :	Residence
Evacuations :	0
Num Of Injuries :	0
Num Of Fatalities :	0
Date/Time :	Not reported
Year :	1998
Agency :	PG&E
BBLS :	0
Cups :	0
CUFT :	0
Gallons :	2
Grams :	0
Pounds :	0
Liters :	0
Ounces :	0
Pints :	0
Quarts :	0
Sheen :	0
Tons :	0
Unknown :	0
Description :	Transformer failure, 1 gallon lost in a creek which runs through the property. Unknown which creek. Cannot mitigate effects in the creek
Incident date :	11/30/199812:00:00 AM
Admin Agency :	Placer County Health Department
OES date :	Not reported
OES time :	Not reported
OES notification :	12/1/199802:47:04 PM
Amount :	Not reported

13 **SEATERS, MARION & KATHLEE** **Cortese** **S105025926**
7430 BASCOU **N/A**
ROSEVILLE, CA 95611

CORTESE:
Region: CORTESE
Fac Address 2: Not reported

---

14 **JOSEPH H. PIERCE** **HIST UST** **U001613836**
8800 WAGON WAY **N/A**
ROSEVILLE, CA 95678

UST HIST:

Facility ID:	54004	Owner Name:	JOSEPH H. PIERCE
Total Tanks:	1	Region:	STATE
Owner Address:	8800 WAGON WAY ROSEVILLE, CA 95678		
Tank Used for:	PRODUCT		
Tank Num:	1	Container Num:	1
Tank Capacity:	00000500	Year Installed:	1980
Type of Fuel:	REGULAR	Tank Construction:	Not Reported
Leak Detection:	Visual		
Contact Name:	Not reported	Telephone:	(916) 791-0614
Facility Type:	Other	Other Type:	RANCH

---

15 **REX HALL** **HAZNET** **S103672050**
7792 LAKESHORE DR **N/A**
GRANITE BAY, CA 91746

HAZNET:

Gepaid:	CAC001057344
TSD EPA ID:	CAD982042475
Gen County:	Placer
Tsd County:	Solano
Tons:	12.6420
Facility Address 2:	Not reported
Waste Category:	Asbestos-containing waste
Disposal Method:	Disposal, Land Fill
Contact:	REX HALL
Telephone:	(000) 000-0000
Mailing Name:	Not reported
Mailing Address:	7792 LAKESHORE DR GRANITE BAY, CA 91746
County	Placer

---

16 **DAVID KIENER** **HAZNET** **S104569671**
8940 WAGON WY **N/A**
GRANITE BAY, CA 95746

DAVID KIENER (Continued) **S104569671**

HAZNET:
Gepaid: CAC002113320
TSD EPA ID: CAD009466392
Gen County: Placer
Tsd County: 7
Tons: 0.75
Facility Address 2: Not reported
Waste Category: Other empty containers 30 gallons or more
Disposal Method: Recycler
Contact: DAVID KIENER
Telephone: (916) 791-3271
Mailing Name: Not reported
Mailing Address: 8940 WAGON WY
GRANITE BAY, CA 95746
County Placer

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16 **KIENER, DAVE** **UST** **U003786407**
8940 WAGON WAY **CA PLACER CO. MS** **N/A**
GRANITE BAY, CA 95746

Placer MS:
Facility ID: PR0007114
District Code: 11
Program Elements: 2302
Facility Status: 2

State UST:
Facility ID: FA0004180
Total Tanks: Not reported
Region: STATE
Local Agency: 31000

---

17 **JOSEPH R. GALLARDO** **CA PLACER CO. MS** **U001613837**
6237 EUREKA RD **HIST UST** **N/A**
ROSEVILLE, CA 95678

Placer MS:
Facility ID: PR0000631
District Code: 14
Program Elements: 2301
Facility Status: 2

Facility ID: PR0003099
District Code: 14
Program Elements: 2107
Facility Status: 2

UST HIST:
Facility ID: 46450
Total Tanks: 1
Owner Address: 6237 EUREKA ROAD
ROSEVILLE, CA 95678
Tank Used for: PRODUCT
Tank Num: 1
Tank Capacity: 00001000
Type of Fuel: REGULAR
Leak Detection: Stock Inventor
Contact Name: Not reported
Facility Type: Other
Owner Name: JOSEPH R. GALLARDO
Region: STATE
Container Num: I
Year Installed: 1974
Tank Construction: Not Reported
Telephone: (916) 791-4751
Other Type: RESIDENCE

17 **OTOW ORCHARD** **HIST UST** **U001613849**
6232 EUREKA RD **N/A**
ROSEVILLE, CA 95678

UST HIST:

Facility ID:	49239	Owner Name:	SEIICHI OTOW
Total Tanks:	2	Region:	STATE
Owner Address:	6232 EUREKA RD. ROSEVILLE, CA 95678		
Tank Used for:	PRODUCT		
Tank Num:	1	Container Num:	#1
Tank Capacity:	00000550	Year Installed:	1974
Type of Fuel:	UNLEADED	Tank Construction:	Not Reported
Leak Detection:	Stock Inventor		
Contact Name:	S. OTOW	Telephone:	(916) 791-1656
Facility Type:	Other	Other Type:	FARM

Facility ID:	49239	Owner Name:	SEIICHI OTOW
Total Tanks:	2	Region:	STATE
Owner Address:	6232 EUREKA RD. ROSEVILLE, CA 95678		
Tank Used for:	PRODUCT		
Tank Num:	2	Container Num:	#2
Tank Capacity:	00000350	Year Installed:	1979
Type of Fuel:	REGULAR	Tank Construction:	Not Reported
Leak Detection:	Stock Inventor		
Contact Name:	S. OTOW	Telephone:	(916) 791-1656
Facility Type:	Other	Other Type:	FARM

---

18 **STATION #1** **CA PLACER CO. MS** **U001613877**
6900 EUREKA RD **HIST UST** **N/A**
ROSEVILLE, CA 95678

Placer MS:

Facility ID:	PR0001337
District Code:	19
Program Elements:	2302
Facility Status:	2

Facility ID:	PR0003158
District Code:	19
Program Elements:	2105
Facility Status:	3

UST HIST:

Facility ID:	13520	Owner Name:	SOUTH PLACER FIRE DISTRICT
Total Tanks:	2	Region:	STATE
Owner Address:	6900 EUREKA RD. ROSEVILLE, CA 95678		
Tank Used for:	PRODUCT		
Tank Num:	1	Container Num:	1
Tank Capacity:	00001000	Year Installed:	1979
Type of Fuel:	REGULAR	Tank Construction:	10 gauge
Leak Detection:	Stock Inventor		
Contact Name:	CREW CHIEF STEPHENS	Telephone:	(916) 791-7059
Facility Type:	Other	Other Type:	FIRE STATION

Facility ID:	13520	Owner Name:	SOUTH PLACER FIRE DISTRICT
Total Tanks:	2	Region:	STATE
Owner Address:	6900 EUREKA RD. ROSEVILLE, CA 95678		

STATION #1 (Continued) **U001613877**

Tank Used for: PRODUCT
Tank Num: 2 Container Num: 2
Tank Capacity: 00001000 Year Installed: 1979
Type of Fuel: DIESEL Tank Construction: 10 gauge
Leak Detection: Stock Inventor
Contact Name: CREW CHIEF STEPHENS Telephone: (916) 791-7059
Facility Type: Other Other Type: FIRE STATION

---

18 **AT & T WIRELESS SVCS-EUREKA RD** **CA PLACER CO. MS** **S105708755**
6900 EUREKA RD **N/A**
GRANITE BAY, CA 95746

Placer MS:
Facility ID: PR0009113
District Code: 15
Program Elements: 2105
Facility Status: 1

Facility ID: PR0009114
District Code: 15
Program Elements: 2115
Facility Status: 1

---

18 **SOUTH PLACER FIRE DISTRICT** **HAZNET** **S103988600**
6900 EUREKA ROAD **N/A**
GRANITE BAY, CA 95661

HAZNET:
Gepaid: CAL000038508
TSD EPA ID: CAD044003556
Gen County: Sacramento
Tsd County: Yolo
Tons: 0.1251
Facility Address 2: Not reported
Waste Category: Unspecified organic liquid mixture
Disposal Method: Transfer Station
Contact: SOUTH PLACER FIRE DIS
Telephone: (000) 000-0000
Mailing Name: Not reported
Mailing Address: 6900 EUREKA RD
GRANITE BAY, CA 95746
County Sacramento

Gepaid: CAL000038508
TSD EPA ID: CAT080013352
Gen County: Sacramento
Tsd County: Los Angeles
Tons: 0.2293
Facility Address 2: Not reported
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Contact: SOUTH PLACER FIRE DIS
Telephone: (000) 000-0000
Mailing Name: Not reported
Mailing Address: 6900 EUREKA RD
GRANITE BAY, CA 95746
County Sacramento

SOUTH PLACER FIRE DISTRICT (Continued) **S103988600**

Gepaid: CAL000038508
TSD EPA ID: CAD044003556
Gen County: Sacramento
Tsd County: Yolo
Tons: .1876
Facility Address 2: Not reported
Waste Category: Unspecified organic liquid mixture
Disposal Method: Transfer Station
Contact: SOUTH PLACER FIRE DIS
Telephone: (000) 000-0000
Mailing Name: Not reported
Mailing Address: 6900 EUREKA RD
GRANITE BAY, CA 95746
County Sacramento

Gepaid: CAL000038508
TSD EPA ID: CAT080013352
Gen County: Sacramento
Tsd County: Los Angeles
Tons: .2085
Facility Address 2: Not reported
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Contact: SOUTH PLACER FIRE DIS
Telephone: (000) 000-0000
Mailing Name: Not reported
Mailing Address: 6900 EUREKA RD
GRANITE BAY, CA 95746
County Sacramento

---

18 **1X SO PLACER FIRE DIST/STA. # 1** **HAZNET** **S102801847**
6900 EUREKA RD **CA PLACER CO. MS** **N/A**
GRANITE BAY, CA 95746

HAZNET:
Gepaid: CAC001011376
TSD EPA ID: CAT080013352
Gen County: Placer
Tsd County: Los Angeles
Tons: .2293
Facility Address 2: Not reported
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Contact: SO. PLACER FIRE DIST.
Telephone: (000) 000-0000
Mailing Name: Not reported
Mailing Address: 6900 EUREKA ROAD
GRANITE BAY, CA 95746
County Placer

Gepaid: CAC001011376
TSD EPA ID: CAT080011059
Gen County: Placer
Tsd County: Los Angeles
Tons: .0625
Facility Address 2: Not reported
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Contact: SO. PLACER FIRE DIST.

1X SO PLACER FIRE DIST/STA. # 1 (Continued) **S102801847**

Telephone: (000) 000-0000
Mailing Name: Not reported
Mailing Address: 6900 EUREKA ROAD
GRANITE BAY, CA 95746
County Placer

Placer MS:
Facility ID: PR0009987
District Code: 50
Program Elements: 2105
Facility Status: 1

Facility ID: PR0009988
District Code: 50
Program Elements: 2115
Facility Status: 1

---

19 **HAAG PROPERTY** **NFA** **S104735500**
9232 BARTON ROAD **N/A**
GRANITE BAY, CA 95661

NFA:

Facility ID	31880001
Dtsc Region Code :	1
Region Code Definition :	SACRAMENTO
County Code :	31
Site Name Under :	HAAG PROPERTY
Current Status Date :	10232000
Current Status Code :	NFA
Current Status :	NO FURTHER ACTION FOR DTSC
Lead Agency Code :	DTSC
Lead Agency :	DEPT OF TOXIC SUBSTANCES CONTROL
Site Type Code :	RP
Site Type :	RESPONSIBLE PARTY
National Priorities List :	Not reported
Tier :	Not reported
Source Of Funding Code :	Not reported
Staff Member :	TMILES
Supervisor :	Not reported
Sic Code :	88
Sic Code Definition :	PRIVATE HOUSEHOLDS
Site Mitigatn & Brnflds Reuse Prog (SMBR) Code :	CC
SMBR Branch :	CENTRAL CALIFORNIA
Regional Water Quality Control Board :	Not reported
RWQCB Definition :	Not reported
Site Access Controlled :	Not reported
Listed In Haz Wst & Substncs Sites List (CORTESE):	Not reported
Date Hazard Ranked :	Not reported
GW Contamination Suspected :	Not reported
# Of Sources Contributing To Contamination :	0
Lat/Long :	0° 0′ 0″ / 0° 0′ 0″
Direction Lat :	Not reported
Direction Long :	Not reported
Lat/long Method :	Not reported
Entity Lat/long Coordinates Refer To :	Not reported
State Assembly Distt Code :	05
State Senate Distt Code :	01
Identifying Code:	CSTAR
ID Value:	101292

HAAG PROPERTY (Continued) **S104735500**

Other ID Desc:	CALSTARS CODE
Alternate Name(s):	BARTON ROAD DEVELOPMENT
Alternate Name(s):	HAAG PROPERTY
Address(es) :	9232 BARTON ROAD GRANITE BAY, CA 95661
Background Info :	This is a residential property which has had fill material (soil) contaminated with residual explosive from a blasting operation imported from another site. The explosive is a nitrogen based material (Dyno AP Plus) that is stable by itself. The soil was imported from a nearby expansion of a municipal water treatment plant. Not reported The site was referred to DTSC by the County Environmental Health Department. Not reported It poses no risk of chemical contamination but does present a potential risk due to physical contamination of the soil. Not reported The property owners have applied for the Voluntary Cleanup Program to address the site.

Facility Id :	Not reported
AWP Activities Code :	Not reported
DTSC Site Activity Code :	Not reported
Activity Code Def:	Not reported
AWP Activity Id :	Not reported
Dt Activity Due For Completion :	Not reported
Revised Due Date :	Not reported
Date Activity Completed :	Not reported
Est # Of Person-years To Complete :	Not reported
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	Not reported
Status Code Definition :	Not reported
Cubic Yards Of Solids Removed At Completion :	Not reported
Gallons Of Liquid Removed Upon Completion :	Not reported
Cubic Yards Of Solids Treated Upon Completion :	Not reported
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported

Special Program Code:	Not reported
Special Program :	Not reported
Comments Date :	09112000
Comments :	DTSC has reviewed information provided by the project proponents and will issue a letter with risk management requirements for the use of the soil at the site. It was determined after reviewing information provided by the project proponent that the site could be addressed without DTSC involvement. DTSC provided risk management recommendations to county Environmental Health. This site is No Further Action for DTSC.

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20 **CHMIRS** **S100277254**

9242 PURDY WAY **N/A**
GRANITE BAY, CA 95661

CHMIRS:

OES Control Number:	9115452
Extent of Release:	Not reported
Property Use:	Lake/Pond/River
Incident Date:	16-FEB-91
Date Completed: 16-FEB-91	
Time Completed :	1217

(Continued) **S100277254**

Agency Id Number :	31150
Agency Incident Number :	736
OES Incident Number :	9115452
Time Notified :	1151
Surrounding Area :	931
Estimated Temperature :	65
Property Management :	K
More Than Two Substances Involved? :	N
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Resp Agncy Personel # Of Decontaminated :	0
Others Number Of Decontaminated :	0
Others Number Of Injuries :	0
Others Number Of Fatalities :	0
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	KEITH BORSON
Report Date :	18-MAR-91
Comments :	Yes
Facility Telephone Number :	916 791-7059
Waterway Involved :	Not reported
Waterway :	Not reported
Spill Site :	Not reported
Cleanup By :	Not reported
Containment :	Not reported
What Happened :	Not reported
Type :	Not reported
Other :	Not reported
Substance :	Not Reported
E Date :	15-JUN-92
Contained :	Not reported
Site Type :	Not reported
Evacuations :	Not reported
Num Of Injuries :	Not reported
Num Of Fatalities :	Not reported
Date/Time :	Not reported
Year :	88-92
Agency :	Not reported
BBLS :	Not reported
Cups :	Not reported
CUFT :	Not reported
Gallons :	Not reported
Grams :	Not reported
Pounds :	Not reported
Liters :	Not reported
Ounces :	Not reported
Pints :	Not reported
Quarts :	Not reported
Sheen :	Not reported

(Continued) **S100277254**

Tons :	Not reported
Unknown :	Not reported
Description :	Not reported
Incident date :	Not reported
Admin Agency :	Not reported
OES date :	Not reported
OES time :	Not reported
OES notification :	Not reported
Amount :	Not reported

---

20 **9242 PURDY LANE** **ERNS** **91205166**
9242 PURDY LANE **N/A**
ROSEVILLE, CA 95661

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

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20 **CHMIRS** **S105882345**
9237 PURDY LANE **N/A**
GRANITE BAY, CA

CHMIRS:

OES Control Number:	02-0202
Extent of Release:	Not reported
Property Use:	Not reported
Incident Date:	Not reported
Date Completed: Not reported	
Time Completed :	Not reported
Agency Id Number :	Not reported
Agency Incident Number :	Not reported
OES Incident Number :	02-0202
Time Notified :	Not reported
Surrounding Area :	Not reported
Estimated Temperature :	Not reported
Property Management :	Not reported
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Resp Agncy Personel # Of Decontaminated :	Not reported
Others Number Of Decontaminated :	Not reported
Others Number Of Injuries :	Not reported
Others Number Of Fatalities :	Not reported
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	Not reported
Report Date :	Not reported
Comments :	Not reported

(Continued) **S105882345**

Facility Telephone Number :	Not reported
Waterway Involved :	Yes
Waterway :	Linda Creek
Spill Site :	Not reported
Cleanup By :	Unknown
Containment :	Not reported
What Happened :	Not reported
Type :	Not reported
Other :	Not reported
Substance :	milky white substance
Quantity Released :	
E Date :	Not reported
Contained :	Unknown
Site Type :	Waterways
Evacuations :	0
Num Of Injuries :	0
Num Of Fatalities :	0
Date/Time :	Not reported
Year :	2002
Agency :	private citizen
BBLS :	0
Cups :	0
CUFT :	0
Gallons :	0
Grams :	0
Pounds :	0
Liters :	0
Ounces :	0
Pints :	0
Quarts :	0
Sheen :	0
Tons :	0
Unknown :	0
Description :	1 hour ago, his wife spotted a colloidal milky white substance in Linda Creek. Unknown source and unknown where it starts or stops.
Incident date :	1/10/200212:00:00 AM
Admin Agency :	Placer County Health Department
OES date :	Not reported
OES time :	Not reported
OES notification :	1/10/200204:28:52 PM
Amount :	Not reported

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21 **SAN JUAN WATER DISTRICT** **HAZNET** **S102286259**
9935 AURBURN- FOLSOM RD **N/A**
GRANITE BAY, CA 95746

HAZNET:

Gepaid:	CAC001028768
TSD EPA ID:	CAD009466392
Gen County:	Placer
Tsd County:	7
Tons:	.8000
Facility Address 2:	Not reported
Waste Category:	Other empty containers 30 gallons or more
Disposal Method:	Recycler
Contact:	SAN JUAN WATER DISTRICT
Telephone:	(916) 791-0115
Mailing Name:	Not reported
Mailing Address:	9935 AURBURN- FOLSOM RD

SAN JUAN WATER DISTRICT (Continued) **S102286259**

GRANITE BAY, CA 95746
County Placer

Gepaid: CAC001028768
TSD EPA ID: CAL000051079
Gen County: Placer
Tsd County: Sacramento
Tons: .8340
Facility Address 2: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Transfer Station
Contact: SAN JUAN WATER DISTRICT
Telephone: (916) 791-0115
Mailing Name: Not reported
Mailing Address: 9935 AURBURN- FOLSOM RD
GRANITE BAY, CA 95746
County Placer

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21 **KEN ROBERTS** **HIST UST** **U001613839**
9230 AUBURN FOLSOM RD. ROSEVIL **N/A**
ROSEVILLE, CA 95678

UST HIST:

Facility ID:	44853	Owner Name:	KEN ROBERTS
Total Tanks:	2	Region:	STATE
Owner Address:	9230 AUBURN FOLSOM RD. ROSEVILLE, CA 95678		
Tank Used for:	PRODUCT		
Tank Num:	1	Container Num:	#1
Tank Capacity:	00002000	Year Installed:	1979
Type of Fuel:	REGULAR	Tank Construction:	Not Reported
Leak Detection:	Visual, Stock Inventor, GW Monitoring Well		
Contact Name:	KEN ROBERTS	Telephone:	(916) 792-4653
Facility Type:	Other	Other Type:	CONSTRUCTION

Facility ID:	44853	Owner Name:	KEN ROBERTS
Total Tanks:	2	Region:	STATE
Owner Address:	9230 AUBURN FOLSOM RD. ROSEVILLE, CA 95678		
Tank Used for:	PRODUCT		
Tank Num:	2	Container Num:	#2
Tank Capacity:	00000500	Year Installed:	Not reported
Type of Fuel:	DIESEL	Tank Construction:	Not Reported
Leak Detection:	Visual, GW Monitoring Well		
Contact Name:	KEN ROBERTS	Telephone:	(916) 792-4653
Facility Type:	Other	Other Type:	CONSTRUCTION

---

22 **ROSEVILLE WATER TREATMENT PLANT** **FINDS** **1007992106**
9342 BARTON RD. **110000560517**
GRANITE BAY, CA 95746

22 **ROSEVILLE, CITY OF, WATER TREATMENT** **CA PLACER CO. MS** **S104915862**
9342 BARTON RD **N/A**
ROSEVILLE, CA 95678

Placer MS:
Facility ID: PR0005872
District Code: 17
Program Elements: 2102
Facility Status: 3

Facility ID: PR0006513
District Code: 17
Program Elements: 2116
Facility Status: 3

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23 **CHMIRS** **S105660722**
9500 BARTON RD **N/A**
GRANITE BAY, CA

CHMIRS:

OES Control Number:	99-3053
Extent of Release:	Not reported
Property Use:	Not reported
Incident Date:	Not reported
Date Completed: Not reported	
Time Completed :	Not reported
Agency Id Number :	Not reported
Agency Incident Number :	Not reported
OES Incident Number :	99-3053
Time Notified :	Not reported
Surrounding Area :	Not reported
Estimated Temperature :	Not reported
Property Management :	Not reported
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Resp Agncy Personel # Of Decontaminated :	Not reported
Others Number Of Decontaminated :	Not reported
Others Number Of Injuries :	Not reported
Others Number Of Fatalities :	Not reported
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	Not reported
Report Date :	Not reported
Comments :	Not reported
Facility Telephone Number :	Not reported
Waterway Involved :	Yes
Waterway :	unknown part of linda creek
Spill Site :	Not reported
Cleanup By :	Unknown
Containment :	Not reported
What Happened :	Not reported
Type :	Not reported

(Continued) **S105660722**

Other :	Not reported
Substance :	aluminum sulfate
Quantity Released :	
E Date :	Not reported
Contained :	Yes
Site Type :	Treatment/Sewage Facility
Evacuations :	0
Num Of Injuries :	0
Num Of Fatalities :	0
Date/Time :	Not reported
Year :	1999
Agency :	Roseville FD
BBLS :	0
Cups :	0
CUFT :	0
Gallons :	23
Grams :	0
Pounds :	0
Liters :	0
Ounces :	0
Pints :	0
Quarts :	0
Sheen :	0
Tons :	0
Unknown :	0
Description :	overpressurization of cylinder holding the aluminum sulfate.. 100 gal went to unknown part of linda creek..where it is trapped and dykesd
Incident date :	7/20/199912:00:00 AM
Admin Agency :	Placer County Health Department
OES date :	Not reported
OES time :	Not reported
OES notification :	7/20/199906:14:28 PM
Amount :	Not reported

---

24 **ROSEVILLE WATER TREATMENT PLAN** **HAZNET** **S104573745**
9595 BARTON RD **CA PLACER CO. MS** **N/A**
GRANITE BAY, CA 95746 **CA WDS**

HAZNET:

Gepaid:	CAL000217110
TSD EPA ID:	Not reported
Gen County:	Placer
Tsd County:	Santa Clara
Tons:	0.20
Facility Address 2:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Disposal, Other
Contact:	JIM MEHL - PLANT OPS
Telephone:	(916) 791-4586
Mailing Name:	Not reported
Mailing Address:	9595 BARTON RD GRANITE BAY, CA 95746
County	Not reported

ROSEVILLE WATER TREATMENT PLAN (Continued) **S104573745**

Gepaid: CAL000217110
TSD EPA ID: Not reported
Gen County: Placer
Tsd County: Santa Clara
Tons: 8.99
Facility Address 2: Not reported
Waste Category: Liquids with pH <UN-> 2
Disposal Method: Treatment, Tank
Contact: JIM MEHL - PLANT OPS
Telephone: (916) 791-4586
Mailing Name: Not reported
Mailing Address: 9595 BARTON RD
GRANITE BAY, CA 95746
County Not reported

Gepaid: CAC002319017
TSD EPA ID: CAD059494310
Gen County: Placer
Tsd County: Santa Clara
Tons: 15.6375
Facility Address 2: Not reported
Waste Category: Aqueous solution with metals (restricted levels and Alkaline solution (pH <UN-> 12.5) with metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc))
Disposal Method: Disposal, Other
Contact: CITY OF ROSEVILLE
Telephone: (916) 774-5362
Mailing Name: Not reported
Mailing Address: 9595 BARTON RD.
GRANITE BAY, CA 95746
County Placer

Gepaid: CAC002319017
TSD EPA ID: CAD059494310
Gen County: Placer
Tsd County: Santa Clara
Tons: 0.0875
Facility Address 2: Not reported
Waste Category: Other organic solids
Disposal Method: Transfer Station
Contact: CITY OF ROSEVILLE
Telephone: (916) 774-5362
Mailing Name: Not reported
Mailing Address: 9595 BARTON RD.
GRANITE BAY, CA 95746
County Placer

WDS:
Facility ID: 5S 31S950000
Facility Contact: MULLIGAN, JIM
Facility Telephone: (916) 774-5668
SIC Code: Not reported
SIC Code 2: Not reported
Agency Name: ROSEVILLE, CITY OF 1
Agency Address: 2005 Hilltop Cir
Roseville 95747 - 9704
Agency Contact: LARRY BUCKLE
Agency Phone: (916) 774-5213
Design Flow: Not reported
Baseline Flow: Not reported
Facility Type: Other - Does not fall into the category of Municipal/Domestic, Industrial, Agricultural or

ROSEVILLE WATER TREATMENT PLAN (Continued) **S104573745**

Solid Waste (Class I, II or III)
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
Agency Type: City
Waste Type: Not reported
Threat to Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.
Reclamation: Not reported
POTW: Not reported
NPDES Number: CAS000005 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion: 5S

Facility ID: 5S 31L950000
Facility Contact: Jim Mulligan — Facility Telephone: (916) 774-5668
SIC Code: Not reported — SIC Code 2: Not reported
Agency Name: ROSEVILLE, CITY OF 2
Agency Address: 2005 HILLTOP CIRCLE
ROSEVILLE 95747
Agency Contact: ART O'BRIEN — Agency Phone: (916) 774-5754
Design Flow: Not reported — Baseline Flow: Not reported
Facility Type: Other - Does not fall into the category of Municipal/Domestic, Industrial, Agricultural or Solid Waste (Class I, II or III)
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
Agency Type: City
Waste Type: Not reported
Threat to Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.
Reclamation: Not reported
POTW: Not reported
NPDES Number: CAS000005 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion: 5S

Placer MS:
Facility ID: PR0010169
District Code: 6
Program Elements: 2102
Facility Status: 1

Facility ID: PR0010170

ROSEVILLE WATER TREATMENT PLAN (Continued) — **S104573745**

District Code: 6
Program Elements: 2116
Facility Status: 1

---

24 **GRANITE BAY GOLF CLUB** — **CA PLACER CO. MS** — **S104180851**
9580 BARTON RD — **N/A**
ROCKLIN, CA 95747

Placer MS:
Facility ID: PR0005074
District Code: 50
Program Elements: 2106
Facility Status: 1

Facility ID: PR0006138
District Code: 50
Program Elements: 2115
Facility Status: 1

Facility ID: PR0007349
District Code: 50
Program Elements: 2268
Facility Status: 1

---

25 **NEXTEL COMM (SITE 1781)** — **CA PLACER CO. MS** — **S106447341**
9651 AUBURN FOLSOM RD — **N/A**
LOOM, CA 95650

Placer MS:
Facility ID: PR0009061
District Code: 15
Program Elements: 2105
Facility Status: 1

Facility ID: PR0009062
District Code: 15
Program Elements: 2115
Facility Status: 1

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26 **LOVEALL, JACK AND PATRICIA** — **CA PLACER CO. MS** — **S104915430**
9145 OAK LEAF WAY — **N/A**
ROSEVILLE, CA 95678

Placer MS:
Facility ID: PR0004665
District Code: 17
Program Elements: 2301
Facility Status: 2

Facility ID: PR0004666
District Code: 17
Program Elements: 2107
Facility Status: 2

26 **MR. LOVEALL PROPERTY** **SWEEPS UST** **S106929683**
9145 OAK LEAF WAY **N/A**
GRANITE BAY, CA 95746

SWEEPS:

Status :	Not reported
Comp Number :	3059
Number :	Not reported
Board Of Equalization :	Not reported
Ref Date :	Not reported
Act Date :	Not reported
Created Date :	Not reported
Tank Status :	Not reported
Owner Tank Id :	Not reported
Swrcb Tank Id :	31-000-003059-000001
Actv Date :	Not reported
Capacity :	250
Tank Use :	M.V. FUEL
Stg :	PRODUCT
Content :	REG UNLEADED
Number Of Tanks :	1

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27 **SAN JUAN SUBURBAN WATER DIST** **CA FID UST** **S101590879**
9965 AUBURN FOLSOM RD **SWEEPS UST** **N/A**
ROSEVILLE, CA 95678

FID:

Facility ID:	34007327	Regulate ID:	Not reported
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	Not reported
Mail To:	Not reported 9965 AUBURN FOLSOM RD ROSEVILLE, CA 95678		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

SWEEPS:

Status :	A
Comp Number :	131086
Number :	4
Board Of Equalization :	44-019607
Ref Date :	10-17-88
Act Date :	10-17-88
Created Date :	10-17-88
Tank Status :	A
Owner Tank Id :	Not reported
Swrcb Tank Id :	34-000-131086-000001
Actv Date :	10-17-88
Capacity :	2000
Tank Use :	M.V. FUEL
Stg :	P
Content :	DIESEL
Number Of Tanks :	1

27 **SAN JUAN WATER DISTRICT** **FINDS** **1007991973**
9935 AUBURN FOLSOM ROAD **110000523684**
GRANITE BAY, CA 95746

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27 **SAN JUAN SUBURBAN WATER DIST** **SWEEPS UST** **S106931830**
9935 AUBURN FOLSON RD **N/A**
GRANITE BAY, CA 95661

SWEEPS:

Status :	A
Comp Number :	807
Number :	4
Board Of Equalization :	44-019607
Ref Date :	07-01-93
Act Date :	07-01-93
Created Date :	07-01-93
Tank Status :	A
Owner Tank Id :	1
Swrcb Tank Id :	31-000-000807-000001
Actv Date :	12-18-92
Capacity :	4000
Tank Use :	M.V. FUEL
Stg :	P
Content :	REG UNLEADED
Number Of Tanks :	4

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27 **SAN JUAN WATER DISTRICT** **HAZNET** **1001935960**
9935 AUBURN FOLSOM RD **N/A**
ROSEVILLE, CA 95746

HAZNET:

Gepaid:	CAL000073350
TSD EPA ID:	CAD982446890
Gen County:	Placer
Tsd County:	San Joaquin
Tons:	.3127
Facility Address 2:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Transfer Station
Contact:	SAN JUAN WATER DISTRICT
Telephone:	(916) 969-2279
Mailing Name:	Not reported
Mailing Address:	PO BOX 2157
	GRANITE BAY, CA 95746 - 2157
County	Placer

Gepaid:	CAL000073350
TSD EPA ID:	CAD982446890
Gen County:	Placer
Tsd County:	San Joaquin
Tons:	.1167
Facility Address 2:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Transfer Station
Contact:	SAN JUAN WATER DISTRICT
Telephone:	(916) 969-2279
Mailing Name:	Not reported

SAN JUAN WATER DISTRICT (Continued) **1001935960**

Mailing Address: PO BOX 2157
GRANITE BAY, CA 95746 - 2157
County Placer

Gepaid: CAL000073350
TSD EPA ID: CAT080011059
Gen County: Placer
Tsd County: Los Angeles
Tons: .2085
Facility Address 2: Not reported
Waste Category: Aqueous solution with 10% or more total organic residues
Disposal Method: Not reported
Contact: SAN JUAN WATER DISTRICT
Telephone: (916) 969-2279
Mailing Name: Not reported
Mailing Address: PO BOX 2157
GRANITE BAY, CA 95746 - 2157
County Placer

Gepaid: CAL000073350
TSD EPA ID: NVT330010000
Gen County: Placer
Tsd County: 99
Tons: .1377
Facility Address 2: Not reported
Waste Category: Polychlorinated biphenyls and material containing PCB's
Disposal Method: Not reported
Contact: SAN JUAN WATER DISTRICT
Telephone: (916) 969-2279
Mailing Name: Not reported
Mailing Address: PO BOX 2157
GRANITE BAY, CA 95746 - 2157
County Placer

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27 **SAN JUAN SUBURBAN WATER DIST** **HAZNET** **S101590878**
9935 AUBURN FOLSOM RD **CA FID UST** **N/A**
ROSEVILLE, CA 95678 **CA PLACER CO. MS**
SWEEPS UST

HAZNET:
Gepaid: CAL000073350
TSD EPA ID: CAT080033681
Gen County: Placer
Tsd County: Placer
Tons: 0.1
Facility Address 2: Not reported
Waste Category: Other organic solids
Disposal Method: Disposal, Land Fill
Contact: BEN MARTINEZ
Telephone: (916) 791-0153
Mailing Name: Not reported
Mailing Address: PO BOX 2157
GRANITE BAY, CA 95746 - 2157
County Placer

SAN JUAN SUBURBAN WATER DIST (Continued) **S101590878**

FID:

Facility ID:	34007326	Regulate ID:	Not reported
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	(915) 791-0115
Mail To:	Not reported 9935 AUBURN FOLSOM RD ROSEVILLE, CA 95678		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

Placer MS:

Facility ID:	PR0001283
District Code:	6
Program Elements:	2303
Facility Status:	2

Facility ID:	PR0002959
District Code:	6
Program Elements:	2102
Facility Status:	1

Facility ID:	PR0005862
District Code:	6
Program Elements:	2350
Facility Status:	2

Facility ID:	PR0008735
District Code:	6
Program Elements:	2116
Facility Status:	1

SWEEPS:

Status :	A
Comp Number :	130986
Number :	4
Board Of Equalization :	44-019607
Ref Date :	10-24-88
Act Date :	10-24-88
Created Date :	10-24-88
Tank Status :	A
Owner Tank Id :	Not reported
Swrcb Tank Id :	34-000-130986-000001
Actv Date :	10-24-88
Capacity :	2000
Tank Use :	M.V. FUEL
Stg :	P
Content :	DIESEL
Number Of Tanks :	1

27 **SAN JUAN SUBURBAN WATER DIST** **HAZNET** **S103986458**
9935 AUBURN FOLSOM RD **AST** **N/A**
GRANITE BAY, CA 95661 **SWEEPS UST**

HAZNET:

Gepaid:	CAC001066288
TSD EPA ID:	CAD044003556
Gen County:	Placer
Tsd County:	Yolo
Tons:	1.3344
Facility Address 2:	Not reported
Waste Category:	Tank bottom waste
Disposal Method:	Transfer Station
Contact:	SAN JUAN WATER DISTRICT
Telephone:	(000) 000-0000
Mailing Name:	Not reported
Mailing Address:	9935 AUBURN FOLSOM RD GRANITE BAY, CA 95746
County	Placer

Gepaid:	CAC001066288
TSD EPA ID:	CAD009466392
Gen County:	Placer
Tsd County:	7
Tons:	3.2500
Facility Address 2:	Not reported
Waste Category:	Other empty containers 30 gallons or more
Disposal Method:	Recycler
Contact:	SAN JUAN WATER DISTRICT
Telephone:	(000) 000-0000
Mailing Name:	Not reported
Mailing Address:	9935 AUBURN FOLSOM RD GRANITE BAY, CA 95746
County	Placer

Gepaid:	CAC001066288
TSD EPA ID:	NVD982358483
Gen County:	Placer
Tsd County:	99
Tons:	3.2500
Facility Address 2:	Not reported
Waste Category:	Other empty containers 30 gallons or more
Disposal Method:	Not reported
Contact:	SAN JUAN WATER DISTRICT
Telephone:	(000) 000-0000
Mailing Name:	Not reported
Mailing Address:	9935 AUBURN FOLSOM RD GRANITE BAY, CA 95746
County	Placer

SWEEPS:

Status :	A
Comp Number :	807
Number :	4
Board Of Equalization :	44-019607
Ref Date :	07-01-93
Act Date :	07-01-93
Created Date :	07-01-93
Tank Status :	A
Owner Tank Id :	2
Swrcb Tank Id :	31-000-000807-000002

SAN JUAN SUBURBAN WATER DIST (Continued) **S103986458**

Actv Date : 12-18-92
Capacity : 2000
Tank Use : M.V. FUEL
Stg : P
Content : DIESEL
Number Of Tanks : Not reported

Status : A
Comp Number : 807
Number : 4
Board Of Equalization : 44-019607
Ref Date : 07-01-93
Act Date : 07-01-93
Created Date : 07-01-93
Tank Status : A
Owner Tank Id : 3
Swrcb Tank Id : 31-000-000807-000003
Actv Date : 12-18-92
Capacity : 550
Tank Use : M.V. FUEL
Stg : P
Content : DIESEL
Number Of Tanks : Not reported

Status : A
Comp Number : 807
Number : 4
Board Of Equalization : 44-019607
Ref Date : 07-01-93
Act Date : 07-01-93
Created Date : 07-01-93
Tank Status : A
Owner Tank Id : 4
Swrcb Tank Id : 31-000-000807-000004
Actv Date : 12-18-92
Capacity : 1500
Tank Use : M.V. FUEL
Stg : P
Content : DIESEL
Number Of Tanks : Not reported

AST:
Owner: SAN JUAN WATER DISTRICT
Total Gallons: 6200

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27 **SAN JUAN SUBURBAN WATER DIST** **LUST** **1001588587**
9925 AUBURN-FOLSOM RD **N/A**
GRANITE BAY, CA 95746

State LUST:
Cross Street: Not reported
Qty Leaked: Not reported
Case Number Not reported
Reg Board: Not reported
Chemical: Gasoline
Lead Agency: Regional Board
Local Agency : 31000
Case Type: Drinking Water Aquifer affected
Status: Case Closed

SAN JUAN SUBURBAN WATER DIST (Continued) **1001588587**

Review Date:	1997-07-08 00:00:00	Confirm Leak:	1997-07-08 00:00:00
Workplan:	Not reported	Prelim Assess:	Not reported
Pollution Char:	Not reported	Remed Plan:	Not reported
Remed Action:	Not reported		
Monitoring:	Not reported		
Close Date:	2000-09-28 00:00:00		
Release Date:	Not reported		
Cleanup Fund Id :	Not reported		
Discover Date :	Not reported		
Enforcement Dt :	2000-08-15 00:00:00		
Enf Type:	None Taken		
Enter Date :	Not reported		
Funding:	Responsible Party		
Staff Initials:	DAV		
How Discovered:	Not reported		
How Stopped:	Not reported		
Interim :	Yes		
Leak Cause:	Not reported		
Leak Source:	Not reported		
MTBE Date :	1997-07-08 00:00:00		
Max MTBE GW :	1630 Parts per Billion		
MTBE Tested:	MTBE Detected. Site tested for MTBE & MTBE detected		
Priority:	Low priority. Priority ranking can change over time.		
Local Case # :	Not reported		
Beneficial:	Not reported		
Staff :	PRS		
GW Qualifier :	=		
Max MTBE Soil :	Not reported		
Soil Qualifier :	Not reported		
Hydr Basin #:	UNNAMED BASIN		
Operator :	Not reported		
Oversight Prgm:	LUST		
Review Date :	Not reported		
Stop Date :	Not reported		
Work Suspended :	No		
Responsible Party	SAN JUAN SUBURBAN WATER DIST		
RP Address:	PO BOX 2157, ROSEVILLE, CA 95661		
Global Id:	T0606100275		
Org Name:	Not reported		
Contact Person:	Not reported		
MTBE Conc:	1		
Mtbe Fuel:	1		
Water System Name:	Not reported		
Well Name:	Not reported		
Distance To Lust:	0		
Waste Discharge Global ID:	Not reported		
Waste Disch Assigned Name:	Not reported		
Summary :	Not reported		

LUST Region 5:

Substance:	GASOLINE		
Case Type:	Drinking Water Aquifer affected		
Program:	LUST		
Staff Initials:	PRS	Case Number:	310333
Status:	Case Closed		
MTBE Code:	6		
Lead Agency:	Regional		

28 **THE DAM NURSERY** **Sacramento Co. ML** **S104654848**
7700 FOLSOM AUBURN **N/A**
FOLSO, CA 95630

Sacramento ML:

Facility Id:	Not reported
Number of Tanks:	Not reported
WG Bill Code:	Not reported
Food Bill Code :	Not reported
Billing Codes BP:	5203
Billing Codes UST:	Not reported
Tier Permitting:	Not reported
Risk Mgmt Protection Program :	Not reported
FD:	Not reported
Target Property Bill Code:	Not reported
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Waste General Insp Date:	Not reported
Hazmat Date BP Received :	Not reported
SIC Code :	Not reported

Facility Id:	Not reported
Number of Tanks:	0
WG Bill Code:	50
Food Bill Code :	50
Billing Codes BP:	Disclaimer
Billing Codes UST:	No Tanks
Tier Permitting:	Not reported
Risk Mgmt Protection Program :	Not reported
FD:	L
Target Property Bill Code:	50
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Waste General Insp Date:	Not reported
Hazmat Date BP Received :	Not reported
SIC Code :	Not reported

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28 **DPR FOLSOM LAKES** **HAZNET** **S103672105**
7806 FOLSOM AUBURN RD **N/A**
FOLSOM, CA 96530

HAZNET:

Gepaid:	CAL000063526
TSD EPA ID:	CAD000088252
Gen County:	Sacramento
Tsd County:	Los Angeles
Tons:	.2293
Facility Address 2:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Transfer Station
Contact:	CAL DEPT OF PARK SERVICESPARKS
Telephone:	(916) 653-9962
Mailing Name:	Not reported
Mailing Address:	PO BOX 942896 SACRAMENTO, CA 94296 - 0001

DPR FOLSOM LAKES (Continued) **S103672105**

County Sacramento

Gepaid: CAL000063526
TSD EPA ID: Not reported
Gen County: Sacramento
Tsd County: Los Angeles
Tons: 0.12
Facility Address 2: Not reported
Waste Category: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)
Disposal Method: Recycler
Contact: HAZMAT COORDINATOR
Telephone: (916) 653-4272
Mailing Name: Not reported
Mailing Address: PO BOX 942896
SACRAMENTO, CA 94296 - 0001
County Not reported

Gepaid: CAL000063526
TSD EPA ID: Not reported
Gen County: Sacramento
Tsd County: San Bernardino
Tons: 0.41
Facility Address 2: Not reported
Waste Category: Oil/water separation sludge
Disposal Method: Transfer Station
Contact: HAZMAT COORDINATOR
Telephone: (916) 653-4272
Mailing Name: Not reported
Mailing Address: PO BOX 942896
SACRAMENTO, CA 94296 - 0001
County Not reported

Gepaid: CAL000063526
TSD EPA ID: Not reported
Gen County: Sacramento
Tsd County: San Bernardino
Tons: 0.2
Facility Address 2: Not reported
Waste Category: Unspecified oil-containing waste
Disposal Method: Transfer Station
Contact: HAZMAT COORDINATOR
Telephone: (916) 653-4272
Mailing Name: Not reported
Mailing Address: PO BOX 942896
SACRAMENTO, CA 94296 - 0001
County Not reported

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28 **AMERICAN RIVER DISTRICT** **HIST UST** **U001612902**
7806 FOLSOM AUBURN RD **N/A**
FOLSOM, CA 95630

UST HIST:
Facility ID: 40710
Total Tanks: 3
Owner Address: 1416 9TH STREET
SACRAMENTO, CA 95814
Tank Used for: PRODUCT
Tank Num: 1
Tank Capacity: 00001500
Type of Fuel: REGULAR
Owner Name: DEPT. OF PARKS & RECREATION
Region: STATE
Container Num: 01
Year Installed: Not reported
Tank Construction: Not Reported

AMERICAN RIVER DISTRICT (Continued) **U001612902**

Leak Detection:	Stock Inventor		
Contact Name:	Not reported	Telephone:	(916) 988-0205
Facility Type:	Other	Other Type:	CALIF STATE PARK SYS
Facility ID:	40710	Owner Name:	DEPT. OF PARKS & RECREATION
Total Tanks:	3	Region:	STATE
Owner Address:	1416 9TH STREET SACRAMENTO, CA 95814		
Tank Used for:	PRODUCT		
Tank Num:	2	Container Num:	02
Tank Capacity:	00000575	Year Installed:	Not reported
Type of Fuel:	DIESEL	Tank Construction:	Not Reported
Leak Detection:	Stock Inventor		
Contact Name:	Not reported	Telephone:	(916) 988-0205
Facility Type:	Other	Other Type:	CALIF STATE PARK SYS
Facility ID:	40710	Owner Name:	DEPT. OF PARKS & RECREATION
Total Tanks:	3	Region:	STATE
Owner Address:	1416 9TH STREET SACRAMENTO, CA 95814		
Tank Used for:	PRODUCT		
Tank Num:	3	Container Num:	03
Tank Capacity:	00000550	Year Installed:	Not reported
Type of Fuel:	REGULAR	Tank Construction:	Not Reported
Leak Detection:	Stock Inventor		
Contact Name:	Not reported	Telephone:	(916) 988-0205
Facility Type:	Other	Other Type:	CALIF STATE PARK SYS

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28 **FOLSOM LAKE** **AST** **A100160331**
7806 FOLSOM-AUBURN RD. **N/A**
FOLSOM, CA

AST:

Owner:	DEPARTMENT OF PARKS AND REC.
Total Gallons:	2500

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28 **AMERICAN RIVER DISTRICT** **CA FID UST** **S101627812**
7806 FOLSOM AUBURN RD **Sacramento Co. ML** **N/A**
FOLSOM, CA 95630 **SWEEPS UST**

FID:

Facility ID:	34004973	Regulate ID:	00040710
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	(916) 988-0205
Mail To:	Not reported 7806 FOLSOM AUBURN RD FOLSOM, CA 95630		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

AMERICAN RIVER DISTRICT (Continued) **S101627812**

Sacramento ML:

Facility Id:	Not reported
Number of Tanks:	Not reported
WG Bill Code:	5305
Food Bill Code :	Not reported
Billing Codes BP:	5204
Billing Codes UST:	Not reported
Tier Permitting:	Not reported
Risk Mgmt Protection Program :	Not reported
FD:	Not reported
Target Property Bill Code:	Not reported
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Waste General Insp Date:	Not reported
Hazmat Date BP Received :	Not reported
SIC Code :	Not reported

SWEEPS:

Status :	A
Comp Number :	40710
Number :	6
Board Of Equalization :	44-031857
Ref Date :	07-01-85
Act Date :	Not reported
Created Date :	02-29-88
Tank Status :	A
Owner Tank Id :	1
Swrcb Tank Id :	34-000-040710-000001
Actv Date :	07-01-85
Capacity :	1500
Tank Use :	M.V. FUEL
Stg :	P
Content :	LEADED
Number Of Tanks :	3

Status :	A
Comp Number :	40710
Number :	6
Board Of Equalization :	44-031857
Ref Date :	07-01-85
Act Date :	Not reported
Created Date :	02-29-88
Tank Status :	A
Owner Tank Id :	2
Swrcb Tank Id :	34-000-040710-000002
Actv Date :	07-01-85
Capacity :	575
Tank Use :	M.V. FUEL
Stg :	P
Content :	DIESEL
Number Of Tanks :	Not reported

Status :	A
Comp Number :	40710

AMERICAN RIVER DISTRICT (Continued) **S101627812**

Number : 6
Board Of Equalization : 44-031857
Ref Date : 07-01-85
Act Date : Not reported
Created Date : 02-29-88
Tank Status : A
Owner Tank Id : 3
Swrcb Tank Id : 34-000-040710-000003
Actv Date : 07-01-85
Capacity : 550
Tank Use : M.V. FUEL
Stg : P
Content : LEADED
Number Of Tanks : Not reported

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28 **PINEBROOK VILLAGE** **CA PLACER CO. MS** **U001612928**
7900 FOLSOM AUBURN RD **HIST UST** **N/A**
FOLSOM, CA 95630 **Sacramento Co. ML**

Placer MS:

Facility ID: PR0001013
District Code: 15
Program Elements: 2302
Facility Status: 2

Facility ID: PR0003051
District Code: 15
Program Elements: 2106
Facility Status: 2

Facility ID: PR0006302
District Code: 15
Program Elements: 2115
Facility Status: 2

Facility ID: PR0008012
District Code: 15
Program Elements: 2268
Facility Status: 2

Sacramento ML:

Facility Id: Not reported
Number of Tanks: 0
WG Bill Code: 50
Food Bill Code : 50
Billing Codes BP: Disclaimer
Billing Codes UST: No Tanks
Tier Permitting: Not reported
Risk Mgmt Protection Program : Not reported
FD: L
Target Property Bill Code: 50
CUPA Permit Date: Not reported
HAZMAT Permit Date: Not reported
HAZMAT Inspection Date: Not reported
UST Inspection Date: Not reported
UST Tank Test Date: Not reported
Waste General Insp Date: Not reported
Hazmat Date BP Received : Not reported
SIC Code : Not reported

PINEBROOK VILLAGE (Continued) **U001612928**

UST HIST:

Facility ID:	21816	Owner Name:	PINEBROOK VILLAGE
Total Tanks:	2	Region:	STATE
Owner Address:	911-22ND STREET SACRAMENTO, CA 95816		
Tank Used for:	PRODUCT		
Tank Num:	1	Container Num:	1
Tank Capacity:	00001000	Year Installed:	1978
Type of Fuel:	UNLEADED	Tank Construction:	Not Reported
Leak Detection:	Stock Inventor		
Contact Name:	DALE R. MORRIS	Telephone:	(916) 444-8830
Facility Type:	Other	Other Type:	MOBILEHOME PARK

Facility ID:	21816	Owner Name:	PINEBROOK VILLAGE
Total Tanks:	2	Region:	STATE
Owner Address:	911-22ND STREET SACRAMENTO, CA 95816		
Tank Used for:	PRODUCT		
Tank Num:	2	Container Num:	2
Tank Capacity:	00002000	Year Installed:	1979
Type of Fuel:	REGULAR	Tank Construction:	Not Reported
Leak Detection:	Stock Inventor		
Contact Name:	DALE R. MORRIS	Telephone:	(916) 444-8830
Facility Type:	Other	Other Type:	MOBILEHOME PARK

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28 **M A NANGLE, DC** **Sacramento Co. ML** **S105269179**
7940 FOLSOM AUBURN **N/A**
FOLSO, CA 95630

Sacramento ML:

Facility Id:	Not reported
Number of Tanks:	0
WG Bill Code:	51
Food Bill Code :	51
Billing Codes BP:	Out of Business
Billing Codes UST:	No Tanks
Tier Permitting:	Not reported
Risk Mgmt Protection Program :	Not reported
FD:	Not reported
Target Property Bill Code:	51
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Waste General Insp Date:	Not reported
Hazmat Date BP Received :	Not reported
SIC Code :	8041

28 **BUREAU OF REC - DRILL YARD** **Sacramento Co. ML** **S100947617**
7794 FOLSOM DAM RD **N/A**
FOLSOM, CA 95630

Sacramento ML:

Facility Id:	Not reported
Number of Tanks:	Not reported
WG Bill Code:	5306
Food Bill Code :	Not reported
Billing Codes BP:	5205
Billing Codes UST:	Not reported
Tier Permitting:	Not reported
Risk Mgmt Protection Program :	Not reported
FD:	Not reported
Target Property Bill Code:	Not reported
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Waste General Insp Date:	Not reported
Hazmat Date BP Received :	Not reported
SIC Code :	Not reported

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28 **FOLSOM DAM** **LUST** **S101590549**
7794 FOLSOM DAM RD **Cortese** **N/A**
FOLSOM, CA 95630 **CA FID UST**
Sacramento Co. CS
SWEEPS UST

State LUST:

Cross Street:	Not reported		
Qty Leaked:	Not reported		
Case Number	Not reported		
Reg Board:	Not reported		
Chemical:	Gasoline		
Lead Agency:	Local Agency		
Local Agency :	34000L		
Case Type:	Soil only		
Status:	**Case Closed**		
Abate Method:	Excavate and Treat - remove contaminated soil and treat (includes spreading or land farming)		
Review Date:	Not reported	Confirm Leak:	Not reported
Workplan:	Not reported	Prelim Assess:	Not reported
Pollution Char:	Not reported	Remed Plan:	Not reported
Remed Action:	Not reported		
Monitoring:	Not reported		
Close Date:	1999-01-07 00:00:00		
Release Date:	Not reported		
Cleanup Fund Id :	Not reported		
Discover Date :	Not reported		
Enforcement Dt :	1965-01-01 00:00:00		
Enf Type:	None Taken		
Enter Date :	Not reported		
Funding:	Federal Funds		
Staff Initials:	DWB		
How Discovered:	Not reported		
How Stopped:	Not reported		
Interim :	Yes		
Leak Cause:	Not reported		
Leak Source:	Not reported		

FOLSOM DAM (Continued) **S101590549**

MTBE Date : Not reported
Max MTBE GW : Not reported
MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Priority: Low priority. Priority ranking can change over time.
Local Case # : 314
Beneficial: Not reported
Staff : KDA
GW Qualifier : Not reported
Max MTBE Soil : Not reported
Soil Qualifier : Not reported
Hydr Basin #: UNNAMED BASIN
Operator : US BUREAU OF RECLAMATION
Oversight Prgm: LUST
Review Date : 1994-11-30 00:00:00
Stop Date : Not reported
Work Suspended :No
Responsible PartyUS BUREAU OF RECLAMATION
RP Address: 7794 FOLSOM DAM RD, FOLSOM, CA 95630
Global Id: T0606700538
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 1
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary : Not reported

LUST Region 5:
Substance: GASOLINE
Case Type: Soil only
Program: LUST
Staff Initials: KDA
Case Number: 340633
Status: Case Closed
MTBE Code: N/A
Lead Agency: Local

CORTESE:
Region: CORTESE
Fac Address 2: 7794 FOLSOM DAM RD

FID:
Facility ID: 34001800
Regulate ID: 00059363
Reg By: Inactive Underground Storage Tank Location
Cortese Code: Not reported
SIC Code: Not reported
Status: Inactive
Facility Tel: (916) 988-1707
Mail To: Not reported
7794 FOLSOM DAM RD
FOLSOM, CA 95630
Contact: Not reported
Contact Tel: Not reported
DUNs No: Not reported
NPDES No: Not reported
Creation: 10/22/93
Modified: 00/00/00
EPA ID: Not reported
Comments: Not reported

SACRAMENTO CS:
Facility Id: RO0000507

FOLSOM DAM (Continued) **S101590549**

Region: SACRAMENTO
State Site Number: 0314
Lead Staff: BOOTH, D.
Lead Agency: HM
Remedial Action Taken: NO
Post Remedial Action Monitoring:
Substance: Automotive(motor gasoline and additives)
Date Reported: 06/13/1990
Date Closed: 07/28/1992
Case Type: Soil only
Facility Id: RO0000508
Region: SACRAMENTO
State Site Number: A370
Lead Staff: MARCUS, B.
Lead Agency: HM
Remedial Action Taken: NO
Post Remedial Action Monitoring:
Substance: Automotive(motor gasoline and additives)
Date Reported: 11/04/1994
Date Closed: 02/02/1999
Case Type: Soil only

SWEEPS:
Status : Not reported
Comp Number : 59363
Number : Not reported
Board Of Equalization : Not reported
Ref Date : Not reported
Act Date : Not reported
Created Date : Not reported
Tank Status : Not reported
Owner Tank Id : Not reported
Swrcb Tank Id : 34-000-059363-000001
Actv Date : Not reported
Capacity : 4000
Tank Use : M.V. FUEL
Stg : PRODUCT
Content : REG UNLEADED
Number Of Tanks : 2

Status : Not reported
Comp Number : 59363
Number : Not reported
Board Of Equalization : Not reported
Ref Date : Not reported
Act Date : Not reported
Created Date : Not reported
Tank Status : Not reported
Owner Tank Id : Not reported
Swrcb Tank Id : 34-000-059363-000002
Actv Date : Not reported
Capacity : 2000
Tank Use : M.V. FUEL
Stg : PRODUCT
Content : LEADED
Number Of Tanks : Not reported

28 **U.S. BUREAU OF RECLAMATION FOL** **HIST UST** **U001612935**
7794 FOLSOM DAM RD **N/A**
FOLSOM, CA 95630

UST HIST:

Facility ID:	59363	Owner Name:	U.S. BUREAU OF RECLAMATION FOL
Total Tanks:	2	Region:	STATE
Owner Address:	7794 FOLSOM DAM ROAD FOLSOM, CA 95630		
Tank Used for:	PRODUCT		
Tank Num:	1	Container Num:	1
Tank Capacity:	00004000	Year Installed:	1979
Type of Fuel:	UNLEADED	Tank Construction:	Not Reported
Leak Detection:	None		
Contact Name:	Not reported	Telephone:	(916) 988-1707
Facility Type:	Other	Other Type:	FEDERAL AREA

Facility ID:	59363	Owner Name:	U.S. BUREAU OF RECLAMATION FOL
Total Tanks:	2	Region:	STATE
Owner Address:	7794 FOLSOM DAM ROAD FOLSOM, CA 95630		
Tank Used for:	PRODUCT		
Tank Num:	2	Container Num:	2
Tank Capacity:	00002000	Year Installed:	Not reported
Type of Fuel:	REGULAR	Tank Construction:	Not Reported
Leak Detection:	None		
Contact Name:	Not reported	Telephone:	(916) 988-1707
Facility Type:	Other	Other Type:	FEDERAL AREA

---

28 **U S BUREAU OF RECLAMATION** **HAZNET** **S104573990**
7794 FOLSOM DAM RD **N/A**
FOLSOM, CA 95630

HAZNET:

Gepaid:	CAL000089562
TSD EPA ID:	CAD059494310
Gen County:	Sacramento
Tsd County:	Santa Clara
Tons:	.9100
Facility Address 2:	Not reported
Waste Category:	Asbestos-containing waste
Disposal Method:	Transfer Station
Contact:	U S DEPT OF THE INTERIOR
Telephone:	(916) 978-5020
Mailing Name:	Not reported
Mailing Address:	2800 COTTAGE WAY RM E-2604 SACRAMENTO, CA 95825 - 1898
County	Sacramento

Gepaid:	CAL000089562
TSD EPA ID:	CAD044003556
Gen County:	Sacramento
Tsd County:	Yolo
Tons:	3.1275
Facility Address 2:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Transfer Station
Contact:	U S DEPT OF THE INTERIOR
Telephone:	(916) 978-5020
Mailing Name:	Not reported
Mailing Address:	2800 COTTAGE WAY RM E-2604

U S BUREAU OF RECLAMATION (Continued) **S104573990**

SACRAMENTO, CA 95825 - 1898
County: Sacramento

Gepaid: CAD140090176
TSD EPA ID: Not reported
Gen County: Sacramento
Tsd County: Los Angeles
Tons: 0.20
Facility Address 2: Not reported
Waste Category: Unspecified solvent mixture Waste
Disposal Method: Recycler
Contact: DAN ASLIN SUPPLY CLERK
Telephone: (916) 989-7240
Mailing Name: Not reported
Mailing Address: 7794 FOLSOM DAM RD
FOLSOM, CA 95630
County: Not reported

Gepaid: CAD140090176
TSD EPA ID: Not reported
Gen County: Sacramento
Tsd County: Los Angeles
Tons: 0.53
Facility Address 2: Not reported
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Recycler
Contact: DAN ASLIN SUPPLY CLERK
Telephone: (916) 989-7240
Mailing Name: Not reported
Mailing Address: 7794 FOLSOM DAM RD
FOLSOM, CA 95630
County: Not reported

Gepaid: CAD140090176
TSD EPA ID: Not reported
Gen County: Sacramento
Tsd County: Santa Clara
Tons: 2.40
Facility Address 2: Not reported
Waste Category: Other organic solids
Disposal Method: Transfer Station
Contact: DAN ASLIN SUPPLY CLERK
Telephone: (916) 989-7240
Mailing Name: Not reported
Mailing Address: 7794 FOLSOM DAM RD
FOLSOM, CA 95630
County: Not reported

Click this hyperlink while viewing on your computer to access
104 additional CA HAZNET record(s) in the EDR Site Report.

28 **ANDY BOHART** **HAZNET** **S103950198**
7794 FOLSOM DAM RD **N/A**
FOLSOM, CA 95630

HAZNET:

Gepaid:	CAC001042944
TSD EPA ID:	CAT000646117
Gen County:	Sacramento
Tsd County:	Kings
Tons:	.8000
Facility Address 2:	Not reported
Waste Category:	Contaminated soil from site clean-ups
Disposal Method:	Disposal, Land Fill
Contact:	ANDY BOHART
Telephone:	(000) 000-0000
Mailing Name:	Not reported
Mailing Address:	114 PARKSHORE DR FOLSOM, CA 95630
County	Sacramento

---

28 **CENTRAL CALIF AREA OFFICE** **Sacramento Co. ML** **S103707334**
7794 FOLSOM DAM RD **N/A**
FOLSOM, CA 95630

Sacramento ML:

Facility Id:	Not reported
Number of Tanks:	Not reported
WG Bill Code:	5306
Food Bill Code :	Not reported
Billing Codes BP:	5206
Billing Codes UST:	Not reported
Tier Permitting:	Not reported
Risk Mgmt Protection Program :	Not reported
FD:	Not reported
Target Property Bill Code:	Not reported
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Waste General Insp Date:	Not reported
Hazmat Date BP Received :	Not reported
SIC Code :	Not reported

---

28 **BUREAU OF RECLAMATION-FOLSOM DAM POWER** **FINDS** **1004441955**
7794 FOLSOM DAM RD **FTTS** **110006526526**
FOLSOM, CA 95630

FTTS:

Case Number:	Not reported
Docket Number:	5-TSCA-94-003
Complaint Issued:	10/07/1993
Complaint Closed:	/ /
Abatement Amount:	0.0000
Proposed Penalty:	76300.0000
Final Assessment:	51105.0000
Final Order Date:	10/11/1994
Close Date:	/ /
Violation:	Section 5

BUREAU OF RECLAMATION-FOLSOM DAM POWER (Continued) **1004441955**

FTTS Insp:
- Region: 09
- Inspected Date: 11/13/1990
- Insp Number: 19901113R006 1
- Violation occurred: No
- Inspector: RKEMMERRER
- Investigation Type: Section 6 PCB Federal Conducted
- Facility Function: User
- Investig Reason: Not reported
- Legislation Code: TSCA

FINDS:
Other Pertinent Environmental Activity Identified at Site:
NATIONAL COMPLIANCE DATABASE SYSTEM

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28 **FOLSOM SUBSTATION** **CA FID UST** **S101627816**
FOLSOM DAM **AST** **N/A**
FOLSOM, CA 95630 **Sacramento Co. ML**
SWEEPS UST

FID:

Facility ID:	34007195	Regulate ID:	00049879
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	(916) 440-2990
Mail To:	Not reported 2800 COTTAGE WAY FOLSOM, CA 95630		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

Sacramento ML:

Facility Id:	Not reported
Number of Tanks:	Not reported
WG Bill Code:	Not reported
Food Bill Code :	Not reported
Billing Codes BP:	5204
Billing Codes UST:	Not reported
Tier Permitting:	Not reported
Risk Mgmt Protection Program :	Not reported
FD:	Not reported
Target Property Bill Code:	Not reported
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Waste General Insp Date:	Not reported
Hazmat Date BP Received :	Not reported
SIC Code :	Not reported

SWEEPS:

Status :	A
Comp Number :	49879
Number :	6
Board Of Equalization :	Not reported
Ref Date :	07-01-85

FOLSOM SUBSTATION (Continued) **S101627816**

Act Date : Not reported
Created Date : 02-29-88
Tank Status : A
Owner Tank Id : 1
Swrcb Tank Id : 34-000-049879-000001
Actv Date : 07-01-85
Capacity : 350
Tank Use : OIL
Stg : W
Content : WASTE OIL
Number Of Tanks : 1

AST:
Owner: DEPARTMENT OF ENERGY
Total Gallons: 28000

---

28 **DOUGLAS REKERS DDS** **HAZNET** **S103707331**
8008 FOLSOM AUBURN RD **Sacramento Co. ML** **N/A**
FOLSOM, CA 95630

HAZNET:
Gepaid: CAL000259896
TSD EPA ID: CAL000175030
Gen County: Sacramento
Tsd County: Sacramento
Tons: 0.01
Facility Address 2: Not reported
Waste Category: Unspecified organic liquid mixture
Disposal Method: Treatment, Tank
Contact: JANN MAFI-LEE
Telephone: (916) 988-7790
Mailing Name: Not reported
Mailing Address: 8008 FOLSOM AUBURN RD
FOLSOM, CA 95630
County Sacramento

Sacramento ML:
Facility Id: Not reported
Number of Tanks: Not reported
WG Bill Code: 5320
Food Bill Code : Not reported
Billing Codes BP: 5214
Billing Codes UST: Not reported
Tier Permitting: Not reported
Risk Mgmt Protection Program : Not reported
FD: Not reported
Target Property Bill Code: Not reported
CUPA Permit Date: Not reported
HAZMAT Permit Date: Not reported
HAZMAT Inspection Date: Not reported
UST Inspection Date: Not reported
UST Tank Test Date: Not reported
Waste General Insp Date: Not reported
Hazmat Date BP Received : Not reported
SIC Code : Not reported

28 **EARNEST J HOOK DPM** **Sacramento Co. ML** **S106387751**
8018 FOLSOM AUBURN RD **N/A**
FOLSOM, CA 95630

Sacramento ML:

Facility Id:	Not reported
Number of Tanks:	Not reported
WG Bill Code:	5320
Food Bill Code :	Not reported
Billing Codes BP:	5214
Billing Codes UST:	Not reported
Tier Permitting:	Not reported
Risk Mgmt Protection Program :	Not reported
FD:	Not reported
Target Property Bill Code:	Not reported
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Waste General Insp Date:	Not reported
Hazmat Date BP Received :	Not reported
SIC Code :	Not reported

---

29 **GREEN VALLEY MARKET** **CA FID UST** **S101627818**
381 GREEN VALLEY RD **SWEEPS UST** **N/A**
FOLSOM, CA 95630

FID:

Facility ID:	34006938	Regulate ID:	00018431
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	(916) 933-1601
Mail To:	Not reported 381 GREEN VALLEY RD FOLSOM, CA 95630		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

SWEEPS:

Status :	A
Comp Number :	18431
Number :	9
Board Of Equalization :	Not reported
Ref Date :	07-01-85
Act Date :	Not reported
Created Date :	02-29-88
Tank Status :	A
Owner Tank Id :	1
Swrcb Tank Id :	34-000-018431-000001
Actv Date :	07-01-85
Capacity :	5000
Tank Use :	M.V. FUEL
Stg :	P
Content :	REG UNLEADED
Number Of Tanks :	5

Status :	A

GREEN VALLEY MARKET (Continued) **S101627818**

Comp Number : 18431
Number : 9
Board Of Equalization : Not reported
Ref Date : 07-01-85
Act Date : Not reported
Created Date : 02-29-88
Tank Status : A
Owner Tank Id : 2
Swrcb Tank Id : 34-000-018431-000002
Actv Date : 07-01-85
Capacity : Not reported
Tank Use : M.V. FUEL
Stg : P
Content : REG UNLEADED
Number Of Tanks : Not reported

Status : A
Comp Number : 18431
Number : 9
Board Of Equalization : Not reported
Ref Date : 07-01-85
Act Date : Not reported
Created Date : 02-29-88
Tank Status : A
Owner Tank Id : 3 REG. GAS
Swrcb Tank Id : 34-000-018431-000003
Actv Date : 07-01-85
Capacity : Not reported
Tank Use : M.V. FUEL
Stg : P
Content : LEADED
Number Of Tanks : Not reported

Status : A
Comp Number : 18431
Number : 9
Board Of Equalization : Not reported
Ref Date : 07-01-85
Act Date : Not reported
Created Date : 02-29-88
Tank Status : A
Owner Tank Id : 4 REG. GAS
Swrcb Tank Id : 34-000-018431-000004
Actv Date : 07-01-85
Capacity : Not reported
Tank Use : M.V. FUEL
Stg : P
Content : LEADED
Number Of Tanks : Not reported

Status : A
Comp Number : 18431
Number : 9
Board Of Equalization : Not reported
Ref Date : 07-01-85
Act Date : Not reported
Created Date : 02-29-88

GREEN VALLEY MARKET (Continued) **S101627818**

Tank Status :	A
Owner Tank Id :	5 PREM
Swrcb Tank Id :	34-000-018431-000005
Actv Date :	07-01-85
Capacity :	Not reported
Tank Use :	M.V. FUEL
Stg :	P
Content :	REG UNLEADED
Number Of Tanks :	Not reported

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30 **SIERRA LIFE CHURCH** **Cortese** **S105023770**
64 MARY **N/A**
FOLSOM, CA 95630

CORTESE:

Region:	CORTESE
Fac Address 2:	Not reported

---

31 **CHMIRS** **S105882234**
103 HOLLYANN DR. **N/A**
FOLSOM, CA

CHMIRS:

OES Control Number:	02-0336
Extent of Release:	Not reported
Property Use:	Not reported
Incident Date:	Not reported
Date Completed: Not reported	
Time Completed :	Not reported
Agency Id Number :	Not reported
Agency Incident Number :	Not reported
OES Incident Number :	02-0336
Time Notified :	Not reported
Surrounding Area :	Not reported
Estimated Temperature :	Not reported
Property Management :	Not reported
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Resp Agncy Personel # Of Decontaminated :	Not reported
Others Number Of Decontaminated :	Not reported
Others Number Of Injuries :	Not reported
Others Number Of Fatalities :	Not reported
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	Not reported
Report Date :	Not reported

(Continued) **S105882234**

Comments :	Not reported
Facility Telephone Number :	Not reported
Waterway Involved :	Yes
Waterway :	unknown creek
Spill Site :	Not reported
Cleanup By :	Unknown
Containment :	Not reported
What Happened :	Not reported
Type :	Not reported
Other :	Not reported
Substance :	Cement
Quantity Released :	
E Date :	Not reported
Contained :	No
Site Type :	Residence
Evacuations :	0
Num Of Injuries :	0
Num Of Fatalities :	0
Date/Time :	Not reported
Year :	2002
Agency :	Sacramento Co Haz Mat
BBLS :	0
Cups :	0
CUFT :	0
Gallons :	0
Grams :	0
Pounds :	0
Liters :	0
Ounces :	0
Pints :	0
Quarts :	0
Sheen :	0
Tons :	0
Unknown :	0
Description :	Per caller, a contractor may have cleaned tools of cement.
Incident date :	1/17/200212:00:00 AM
Admin Agency :	Sacramento County Environmental Mgmt.
OES date :	Not reported
OES time :	Not reported
OES notification :	1/17/200206:01:59 PM
Amount :	Not reported

---

31 **ZACH ENTERPRISES** **HAZNET** **S104566981**
410 DANIELLE **N/A**
FOLSOM, CA 95630

HAZNET:

Gepaid:	CAC001386280
TSD EPA ID:	CAD981382732
Gen County:	Sacramento
Tsd County:	1
Tons:	5.0568
Facility Address 2:	Not reported
Waste Category:	Asbestos-containing waste
Disposal Method:	Disposal, Land Fill
Contact:	ZACH ROCKWELL
Telephone:	(916) 989-4684
Mailing Name:	Not reported
Mailing Address:	9477 GREENBACK LANE STE 203

ZACH ENTERPRISES (Continued) **S104566981**

FOLSOM, CA 95630
County Sacramento

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32 **IRVIN BINGHEM** **HAZNET** **S105084350**
321 GREEN VALLEY RD **N/A**
EL DORADO, CA 95162

HAZNET:
Gepaid: CAC002195473
TSD EPA ID: CAD044003556
Gen County: 9
Tsd County: Yolo
Tons: .5004
Facility Address 2: Not reported
Waste Category: Unspecified oil-containing waste
Disposal Method: Transfer Station
Contact: IRVIN BINGHEM
Telephone: (916) 933-0527
Mailing Name: Not reported
Mailing Address: 321 GREEN VALLEY RD
EL DORADO, CA 95162
County 9

Gepaid: CAC002195473
TSD EPA ID: CAT080013352
Gen County: 9
Tsd County: Los Angeles
Tons: 7.1724
Facility Address 2: Not reported
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Recycler
Contact: IRVIN BINGHEM
Telephone: (916) 933-0527
Mailing Name: Not reported
Mailing Address: 321 GREEN VALLEY RD
EL DORADO, CA 95162
County 9

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32 **GREEN VALLEY GAS & FOOD** **HAZNET** **S102444874**
369 GREEN VALLEY RD **Cortese** **N/A**
EL DORADO HILLS, CA 95762

HAZNET:
Gepaid: CAC002195465
TSD EPA ID: CAD044003556
Gen County: 9
Tsd County: Yolo
Tons: 1.4595
Facility Address 2: Not reported
Waste Category: Unspecified oil-containing waste
Disposal Method: Transfer Station
Contact: DIANNE ANDERS
Telephone: (916) 933-2616
Mailing Name: Not reported
Mailing Address: 369 GREEN VALLEY RD
EL DORADO, CA 95162
County 9

CORTESE:

GREEN VALLEY GAS & FOOD (Continued) **S102444874**

Region: CORTESE
Fac Address 2: 369 GREEN VALLEY RD

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32 **GREEN VALLEY MARKET** **HIST UST** **U001612919**
381 GREEN VALLEY RD **N/A**
FOLSOM, CA 95630

UST HIST:

Facility ID:	18431	Owner Name:	ANDERS, DIANNA J. OR KENNETH K
Total Tanks:	5	Region:	STATE
Owner Address:	369 GREEN VALLEY RD FOLSOM, CA 95630		
Tank Used for:	PRODUCT		
Tank Num:	1	Container Num:	1
Tank Capacity:	00005000	Year Installed:	Not reported
Type of Fuel:	UNLEADED	Tank Construction:	Not Reported
Leak Detection:	None		
Contact Name:	MARVIN HINSHAW	Telephone:	(916) 933-1601
Facility Type:	Gas Station	Other Type:	Not reported

Facility ID:	18431	Owner Name:	ANDERS, DIANNA J. OR KENNETH K
Total Tanks:	5	Region:	STATE
Owner Address:	369 GREEN VALLEY RD FOLSOM, CA 95630		
Tank Used for:	PRODUCT		
Tank Num:	2	Container Num:	2
Tank Capacity:	00000000	Year Installed:	Not reported
Type of Fuel:	UNLEADED	Tank Construction:	Not Reported
Leak Detection:	None		
Contact Name:	MARVIN HINSHAW	Telephone:	(916) 933-1601
Facility Type:	Gas Station	Other Type:	Not reported

Facility ID:	18431	Owner Name:	ANDERS, DIANNA J. OR KENNETH K
Total Tanks:	5	Region:	STATE
Owner Address:	369 GREEN VALLEY RD FOLSOM, CA 95630		
Tank Used for:	PRODUCT		
Tank Num:	3	Container Num:	3 REG. GAS
Tank Capacity:	00000000	Year Installed:	Not reported
Type of Fuel:	REGULAR	Tank Construction:	Not Reported
Leak Detection:	None		
Contact Name:	MARVIN HINSHAW	Telephone:	(916) 933-1601
Facility Type:	Gas Station	Other Type:	Not reported

Facility ID:	18431	Owner Name:	ANDERS, DIANNA J. OR KENNETH K
Total Tanks:	5	Region:	STATE
Owner Address:	369 GREEN VALLEY RD FOLSOM, CA 95630		
Tank Used for:	PRODUCT		
Tank Num:	4	Container Num:	4 REG GAS
Tank Capacity:	00000000	Year Installed:	Not reported
Type of Fuel:	REGULAR	Tank Construction:	Not Reported
Leak Detection:	None		
Contact Name:	MARVIN HINSHAW	Telephone:	(916) 933-1601
Facility Type:	Gas Station	Other Type:	Not reported

Facility ID:	18431	Owner Name:	ANDERS, DIANNA J. OR KENNETH K
Total Tanks:	5	Region:	STATE
Owner Address:	369 GREEN VALLEY RD		

GREEN VALLEY MARKET (Continued) **U001612919**

FOLSOM, CA 95630

Tank Used for:	PRODUCT		
Tank Num:	5	Container Num:	5 PREM
Tank Capacity:	00000000	Year Installed:	Not reported
Type of Fuel:	PREMIUM	Tank Construction:	Not Reported
Leak Detection:	None		
Contact Name:	MARVIN HINSHAW	Telephone:	(916) 933-1601
Facility Type:	Gas Station	Other Type:	Not reported

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32 **GREEN VALLEY GAS & FOOD** **LUST S104548945**
381 GREEN VALLEY RD **SWEEPS UST N/A**
EL DORADO HILLS, CA 95762

State LUST:

Cross Street:	Not reported		
Qty Leaked:	Not reported		
Case Number	Not reported		
Reg Board:	Not reported		
Chemical:	Gasoline		
Lead Agency:	Regional Board		
Local Agency :	09000		
Case Type:	O, S		
Status:	**Pollution Characterization**		
Review Date:	2000-05-26 00:00:00	Confirm Leak:	2000-05-26 00:00:00
Workplan:	2004-03-17 00:00:00	Prelim Assess:	2004-03-17 00:00:00
Pollution Char:	Not reported	Remed Plan:	Not reported
Remed Action:	Not reported		
Monitoring:	Not reported		
Close Date:	Not reported		
Release Date:	Not reported		
Cleanup Fund Id :	Not reported		
Discover Date :	Not reported		
Enforcement Dt :	1965-01-01 00:00:00		
Enf Type:	None Taken		
Enter Date :	Not reported		
Funding:	Not reported		
Staff Initials:	Not reported		
How Discovered:	OM		
How Stopped:	Not reported		
Interim :	Not reported		
Leak Cause:	UNK		
Leak Source:	UNK		
MTBE Date :	Not reported		
Max MTBE GW :	Not reported		
MTBE Tested:	MTBE Detected. Site tested for MTBE & MTBE detected		
Priority:	Not reported		
Local Case # :	Not reported		
Beneficial:	GWR		
Staff :	PGM		
GW Qualifier :	Not reported		
Max MTBE Soil :	Not reported		
Soil Qualifier :	Not reported		
Hydr Basin #:	UNNAMED BASIN		
Operator :	DIANNA ANDERS		
Oversight Prgm:	LUST		
Review Date :	Not reported		
Stop Date :	Not reported		
Work Suspended :	No		
Responsible Party	GREEN VALLEY GAS & FOOD		

GREEN VALLEY GAS & FOOD (Continued) **S104548945**

RP Address: 369 GREEN VALLEY RD, EL DORADO, CA 95672
Global Id: T0601793598
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 1
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary : Not reported

LUST Region 5:
Substance: GASOLINE
Case Type: O, S
Program: LUST
Staff Initials: PGM Case Number: 090109
Status: Pollution Characterization
MTBE Code: N/A
Lead Agency: Regional

SWEEPS:
Status : A
Comp Number : 53
Number : 2
Board Of Equalization : 44-002870
Ref Date : 05-29-92
Act Date : 05-29-92
Created Date : 07-12-89
Tank Status : A
Owner Tank Id : G01
Swrcb Tank Id : 09-000-000053-000001
Actv Date : 05-29-92
Capacity : 6000
Tank Use : M.V. FUEL
Stg : P
Content : REG UNLEADED
Number Of Tanks : 5

Status : A
Comp Number : 53
Number : 2
Board Of Equalization : 44-002870
Ref Date : 05-29-92
Act Date : 05-29-92
Created Date : 07-12-89
Tank Status : A
Owner Tank Id : G02
Swrcb Tank Id : 09-000-000053-000002
Actv Date : 05-29-92
Capacity : 6000
Tank Use : M.V. FUEL
Stg : P
Content : UNLEADED PLU
Number Of Tanks : Not reported

Status : A

GREEN VALLEY GAS & FOOD (Continued) **S104548945**

Comp Number :	53
Number :	2
Board Of Equalization :	44-002870
Ref Date :	05-29-92
Act Date :	05-29-92
Created Date :	07-12-89
Tank Status :	A
Owner Tank Id :	G04
Swrcb Tank Id :	09-000-000053-000003
Actv Date :	05-29-92
Capacity :	4000
Tank Use :	M.V. FUEL
Stg :	P
Content :	UNLEADED PLU
Number Of Tanks :	Not reported

Status :	A
Comp Number :	53
Number :	2
Board Of Equalization :	44-002870
Ref Date :	05-29-92
Act Date :	05-29-92
Created Date :	07-12-89
Tank Status :	A
Owner Tank Id :	G03
Swrcb Tank Id :	09-000-000053-000004
Actv Date :	05-29-92
Capacity :	4000
Tank Use :	M.V. FUEL
Stg :	P
Content :	REG UNLEADED
Number Of Tanks :	Not reported

Status :	A
Comp Number :	53
Number :	2
Board Of Equalization :	44-002870
Ref Date :	05-29-92
Act Date :	05-29-92
Created Date :	07-12-89
Tank Status :	A
Owner Tank Id :	G05
Swrcb Tank Id :	09-000-000053-000005
Actv Date :	05-29-92
Capacity :	4000
Tank Use :	M.V. FUEL
Stg :	P
Content :	PRM UNLEADED
Number Of Tanks :	Not reported

32 **GREEN VALLEY TIRE AND BRAKE** **HAZNET** **S102814588**
390 GREEN VALLEY RD **N/A**
EL DORADO HILLS, CA 95630

HAZNET:

Gepaid:	CAL000067650
TSD EPA ID:	CAD982446874
Gen County:	9
Tsd County:	Yolo
Tons:	.7923
Facility Address 2:	Not reported
Waste Category:	Aqueous solution with less than 10% total organic residues
Disposal Method:	Transfer Station
Contact:	RENKE CLAY
Telephone:	(916) 939-4084
Mailing Name:	Not reported
Mailing Address:	390 GREEN VALLEY RD
	EL DORADO HILLS, CA 95762 - 3937
County	9

Gepaid:	CAL000067650
TSD EPA ID:	CAD982446874
Gen County:	9
Tsd County:	Yolo
Tons:	1.0841
Facility Address 2:	Not reported
Waste Category:	Aqueous solution with less than 10% total organic residues
Disposal Method:	Transfer Station
Contact:	RENKE CLAY
Telephone:	(916) 939-4084
Mailing Name:	Not reported
Mailing Address:	390 GREEN VALLEY RD
	EL DORADO HILLS, CA 95762 - 3937
County	9

Gepaid:	CAL000067650
TSD EPA ID:	CAD093459485
Gen County:	9
Tsd County:	Fresno
Tons:	.0166
Facility Address 2:	Not reported
Waste Category:	Unspecified solvent mixture Waste
Disposal Method:	Transfer Station
Contact:	RENKE CLAY
Telephone:	(916) 939-4084
Mailing Name:	Not reported
Mailing Address:	390 GREEN VALLEY RD
	EL DORADO HILLS, CA 95762 - 3937
County	9

Gepaid:	CAL000067650
TSD EPA ID:	CAD982446874
Gen County:	9
Tsd County:	Yolo
Tons:	.4587
Facility Address 2:	Not reported
Waste Category:	Aqueous solution with less than 10% total organic residues
Disposal Method:	Transfer Station
Contact:	RENKE CLAY
Telephone:	(916) 939-4084
Mailing Name:	Not reported

GREEN VALLEY TIRE AND BRAKE (Continued) **S102814588**

Mailing Address: 390 GREEN VALLEY RD
EL DORADO HILLS, CA 95762 - 3937
County 9

Gepaid: CAL000190436
TSD EPA ID: CAD044003556
Gen County: 9
Tsd County: Yolo
Tons: .4170
Facility Address 2: Not reported
Waste Category: Aqueous solution with 10% or more total organic residues
Disposal Method: Transfer Station
Contact: GRADY & BELVA GETTINGS
Telephone: (000) 000-0000
Mailing Name: Not reported
Mailing Address: 390 GREEN VALLEY RD
EL DORADO HILLS, CA 95762
County 9

Click this hyperlink while viewing on your computer to access
3 additional CA HAZNET record(s) in the EDR Site Report.

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33 **FOLSOM SUBSTATION** **HIST UST** **U001612914**
FOLSOM DAM **N/A**
FOLSOM, CA 95630

UST HIST:

Facility ID:	49879	Owner Name:	WESTERN AREA POWER ADMINISTRAT
Total Tanks:	1	Region:	STATE
Owner Address:	2800 COTTAGE WAY SACRAMENTO, CA 95825		
Tank Used for:	WASTE		
Tank Num:	1	Container Num:	01
Tank Capacity:	00000350	Year Installed:	1983
Type of Fuel:	WASTE OIL	Tank Construction:	1 inches
Leak Detection:	Stock Inventor		
Contact Name:	DOUG GROSS	Telephone:	(916) 440-2990
Facility Type:	Other	Other Type:	GOVERNMENT

---

33 **WAPA-FOLSOM SUBSTATION** **Sacramento Co. CS** **S102441061**
FOLSOM DAM RD **Sacramento Co. ML** **N/A**
FOLSOM, CA 95630

Sacramento ML:

Facility Id:	Not reported
Number of Tanks:	0
WG Bill Code:	50
Food Bill Code :	50
Billing Codes BP:	Disclaimer
Billing Codes UST:	No Tanks
Tier Permitting:	Not reported
Risk Mgmt Protection Program :	Not reported
FD:	L
Target Property Bill Code:	50
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported

WAPA-FOLSOM SUBSTATION (Continued) **S102441061**

Waste General Insp Date: Not reported
Hazmat Date BP Received : Not reported
SIC Code : Not reported

SACRAMENTO CS:
Facility Id: RO0000506
Region: SACRAMENTO
State Site Number: R069
Lead Staff: BENEDICT, A.
Lead Agency: HM
Remedial Action Taken: NO
Post Remedial Action Monitoring:
Substance: Waste Oil
Date Reported: Not reported
Date Closed: Not reported
Case Type: Not reported

---

33 **FOLSOM LAKE NEAR TOWN OF FOLSOM** **ERNS** **8856375**
FOLSOM LAKE NEAR TOWN OF FOLSOM **N/A**
SACREMENTO (County), CA

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

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33 **FOLSOM DAM ROAD FOLSOM SUBSTATION** **ERNS** **879560**
FOLSOM DAM ROAD FOLSOM SUBSTATION **N/A**
FOLSOM, CA

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

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33 **FOLSOM DAM RD, FOLSOM SUBSTATION** **ERNS** **87464046**
FOLSOM DAM RD, FOLSOM SUBSTATION **N/A**
NR. FOLSOM, CA

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

33 **FOLSOM SOUTH CANAL BETW HWY 50 & SUNRISE BLVD** **ERNS** **93346172**
FOLSOM SOUTH CANAL BETW HWY 50 & SUNRISE BLVD **N/A**
FOLSOM, CA 95630

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33 **FOLSOM PRISON** **ERNS** **93342400**
FOLSOM PRISON **N/A**
FOLSOM, CA 95630

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

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33 **FOLSOM STATE PRISON, BETWEEN BLDG & GARAGE** **ERNS** **93327960**
FOLSOM STATE PRISON, BETWEEN BLDG & GARAGE **N/A**
FOLSOM, CA 95630

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

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34 **BROTHERS BOATS** **HAZNET** **S100931170**
7450 FOLSOM AUBURN RD **Sacramento Co. ML** **N/A**
FOLSOM, CA 95630

HAZNET:

Gepaid:	CAL000058246
TSD EPA ID:	CAD980887418
Gen County:	Placer
Tsd County:	1
Tons:	.1876
Facility Address 2:	Not reported
Waste Category:	Aqueous solution with less than 10% total organic residues
Disposal Method:	Not reported
Contact:	Not reported
Telephone:	(000) 000-0000
Mailing Name:	Not reported
Mailing Address:	7450 FOLSOM/AUBURN ROAD FOLSOM, CA 95630
County	Placer

BROTHERS BOATS (Continued) **S100931170**

Gepaid: CAL000043386
TSD EPA ID: CAT080011059
Gen County: Sacramento
Tsd County: Los Angeles
Tons: .2293
Facility Address 2: Not reported
Waste Category: Aqueous solution with 10% or more total organic residues
Disposal Method: Recycler
Contact: FOLAMAR INC
Telephone: (000) 000-0000
Mailing Name: Not reported
Mailing Address: 7450 FOLSOM AUBURN RD
FOLSOM, CA 95630
County Sacramento

Sacramento ML:
Facility Id: Not reported
Number of Tanks: Not reported
WG Bill Code: 5306
Food Bill Code : Not reported
Billing Codes BP: 5203
Billing Codes UST: Not reported
Tier Permitting: Not reported
Risk Mgmt Protection Program : Not reported
FD: Not reported
Target Property Bill Code: Not reported
CUPA Permit Date: Not reported
HAZMAT Permit Date: Not reported
HAZMAT Inspection Date: Not reported
UST Inspection Date: Not reported
UST Tank Test Date: Not reported
Waste General Insp Date: Not reported
Hazmat Date BP Received : Not reported
SIC Code : Not reported

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34 **COUNTRY BOY GENERAL STORE** **Sacramento Co. CS** **S102314785**
7530 FOLSOM AUBURN RD **N/A**
FOLSOM, CA

SACRAMENTO CS:
Facility Id: RO0000505
Region: SACRAMENTO
State Site Number: C525
Lead Staff: MARCUS, B.
Lead Agency: HM
Remedial Action Taken: YES
Post Remedial Action Monitoring:
Substance: Automotive(motor gasoline and additives)
Date Reported: 01/08/1990
Date Closed: 02/18/1998
Case Type: Other ground water affected

34 **COUNTRY BOY GENERAL STORE** **Sacramento Co. ML** **S102314786**
7530 FOLSOM AUBURN **N/A**
FOLSO, CA 95630

Sacramento ML:

Facility Id:	Not reported
Number of Tanks:	Not reported
WG Bill Code:	5306
Food Bill Code :	Not reported
Billing Codes BP:	5203
Billing Codes UST:	Not reported
Tier Permitting:	Not reported
Risk Mgmt Protection Program :	Not reported
FD:	Not reported
Target Property Bill Code:	Not reported
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Waste General Insp Date:	Not reported
Hazmat Date BP Received :	Not reported
SIC Code :	Not reported

Facility Id:	Not reported
Number of Tanks:	0
WG Bill Code:	51
Food Bill Code :	51
Billing Codes BP:	Out of Business
Billing Codes UST:	No Tanks
Tier Permitting:	Not reported
Risk Mgmt Protection Program :	Not reported
FD:	L
Target Property Bill Code:	51
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Waste General Insp Date:	Not reported
Hazmat Date BP Received :	Not reported
SIC Code :	5311

---

34 **COUNTRY BOY MARKET** **CA FID UST** **S101590714**
7530 FOLSOM AUBURN RD **SWEEPS UST** **N/A**
FOLSOM, CA 95630

COUNTRY BOY MARKET (Continued) **S101590714**

FID:

Facility ID:	34006616	Regulate ID:	Not reported
Reg By:	Inactive Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Inactive	Facility Tel:	(916) 988-6707
Mail To:	Not reported P O BOX FOLSOM, CA 95630		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

SWEEPS:

Status :	Not reported
Comp Number :	206
Number :	Not reported
Board Of Equalization :	Not reported
Ref Date :	Not reported
Act Date :	Not reported
Created Date :	Not reported
Tank Status :	Not reported
Owner Tank Id :	Not reported
Swrcb Tank Id :	34-000-000206-000001
Actv Date :	Not reported
Capacity :	2000
Tank Use :	M.V. FUEL
Stg :	PRODUCT
Content :	REG UNLEADED
Number Of Tanks :	4

Status :	Not reported
Comp Number :	206
Number :	Not reported
Board Of Equalization :	Not reported
Ref Date :	Not reported
Act Date :	Not reported
Created Date :	Not reported
Tank Status :	Not reported
Owner Tank Id :	Not reported
Swrcb Tank Id :	34-000-000206-000002
Actv Date :	Not reported
Capacity :	2000
Tank Use :	M.V. FUEL
Stg :	PRODUCT
Content :	LEADED
Number Of Tanks :	Not reported

Status :	Not reported
Comp Number :	206
Number :	Not reported
Board Of Equalization :	Not reported
Ref Date :	Not reported
Act Date :	Not reported
Created Date :	Not reported
Tank Status :	Not reported

COUNTRY BOY MARKET (Continued) **S101590714**

Owner Tank Id : Not reported
Swrcb Tank Id : 34-000-000206-000003
Actv Date : Not reported
Capacity : 2000
Tank Use : M.V. FUEL
Stg : PRODUCT
Content : REG UNLEADED
Number Of Tanks : Not reported

Status : Not reported
Comp Number : 206
Number : Not reported
Board Of Equalization : Not reported
Ref Date : Not reported
Act Date : Not reported
Created Date : Not reported
Tank Status : Not reported
Owner Tank Id : Not reported
Swrcb Tank Id : 34-000-000206-000004
Actv Date : Not reported
Capacity : 2000
Tank Use : M.V. FUEL
Stg : PRODUCT
Content : REG UNLEADED
Number Of Tanks : Not reported

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34 **COUNTRY BOY GENERAL STORE** **LUST** **S105023769**
7530 FOLSOM-AUBURN BLVD **Cortese** **N/A**
FOLSOM, CA 95630

State LUST:
Cross Street: OAK AVE PARKWAY
Qty Leaked: Not reported
Case Number Not reported
Reg Board: Not reported
Chemical: Gasoline
Lead Agency: Local Agency
Local Agency : 34000L
Case Type: Drinking Water Aquifer affected
Status: Case Closed
Review Date: 1989-11-25 00:00:00 Confirm Leak: 1989-11-25 00:00:00
Workplan: 1990-01-08 00:00:00 Prelim Assess: 1990-01-08 00:00:00
Pollution Char: 1990-10-19 00:00:00 Remed Plan: 1990-10-19 00:00:00
Remed Action: Not reported
Monitoring: Not reported
Close Date: 1998-02-18 00:00:00
Release Date: Not reported
Cleanup Fund Id : Not reported
Discover Date : Not reported
Enforcement Dt : 1990-07-23 00:00:00
Enf Type: None Taken
Enter Date : Not reported
Funding: Federal Funds
Staff Initials: BIM
How Discovered: Not reported
How Stopped: Not reported
Interim : Not reported
Leak Cause: Not reported
Leak Source: Not reported

COUNTRY BOY GENERAL STORE (Continued) **S105023769**

MTBE Date : Not reported
Max MTBE GW : Not reported
MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Priority: Low priority. Priority ranking can change over time.
Local Case # : Not reported
Beneficial: Not reported
Staff : KDA
GW Qualifier : Not reported
Max MTBE Soil : Not reported
Soil Qualifier : Not reported
Hydr Basin #: UNNAMED BASIN
Operator : RALPH DREWITZ
Oversight Prgm: LUST
Review Date : 1996-06-24 00:00:00
Stop Date : Not reported
Work Suspended :No
Responsible PartyCOUNTRY BOY GENERAL STORE
RP Address: BOX 2366, ROSEVILLE, CA 95746
Global Id: T0606700405
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 1
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary : Not reported

LUST Region 5:
Substance: GASOLINE
Case Type: Drinking Water Aquifer affected
Program: LUST
Staff Initials: KDA Case Number: 340486
Status: Case Closed
MTBE Code: N/A
Lead Agency: Local

CORTESE:
Region: CORTESE
Fac Address 2: 7530 FOLSOM-AUBURN BLVD

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35 **SUNDAHL (CARL H.) ELEMENTARY** **FINDS** **1008312733**
9932 INWOOD ROAD **110022059671**
FOLSOM, CA 95630

FINDS:
Other Pertinent Environmental Activity Identified at Site:
NATIONAL CENTER FOR EDUCATION STATISTICS

36 **JENNIFER BRINITZER** **HAZNET** **S103971941**
9824 OAK PLACE WEST **N/A**
FOLSOM, CA 95630

HAZNET:

Gepaid:	CAC000931800
TSD EPA ID:	CAD982042475
Gen County:	Sacramento
Tsd County:	Solano
Tons:	2.5284
Facility Address 2:	Not reported
Waste Category:	Asbestos-containing waste
Disposal Method:	Disposal, Land Fill
Contact:	JENNIFER BRINITZER
Telephone:	(916) 987-1520
Mailing Name:	Not reported
Mailing Address:	9824 OAK PLACE WEST FOLSOM, CA 95630
County	Sacramento

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37 **FOLSOM PRISON** **DEED** **S101481890**
N OF FOLSOM CITY; ADJ TO AMERICAN RIVER **VCP** **N/A**
REPRESA, CA 95671

VCP:

Facility ID	34920001
Dtsc Region Code :	1
Region Code Definition :	SACRAMENTO
County Code :	34
Site Name Under :	Not reported
Current Status Date :	07011993
Current Status Code :	VCP
Current Status :	VOLUNTARY CLEANUP PROGRAM
Lead Agency Code :	DTSC
Lead Agency :	DEPT OF TOXIC SUBSTANCES CONTROL
Site Type Code :	VCP
Site Type :	VOLUNTARY CLEANUP PROGRAM
National Priorities List :	N
Tier :	Not reported
Source Of Funding Code :	C
Staff Member :	RFEARS
Supervisor :	Not reported
Sic Code :	92
Sic Code Definition :	JUSTICE, PUBLIC ORDER & SAFETY
Site Mitigatn & Brnflds Reuse Prog (SMBR) Code :	CC
SMBR Branch :	CENTRAL CALIFORNIA
Regional Water Quality Control Board :	Not reported
RWQCB Definition :	Not reported
Site Access Controlled :	Not reported
Listed In Haz Wst & Substncs Sites List (CORTESE):	Not reported
Date Hazard Ranked :	Not reported
GW Contamination Suspected :	C
# Of Sources Contributing To Contamination :	4
Lat/Long :	0˚ 0´ 0˝ / 0˚ 0´ 0˝
Direction Lat :	Not reported
Direction Long :	Not reported
Lat/long Method :	Not reported
Entity Lat/long Coordinates Refer To :	Not reported
State Assembly Distt Code :	05
State Senate Distt Code :	01

FOLSOM PRISON (Continued) **S101481890**

Identifying Code:	PCODE
ID Value:	P12084
Other ID Desc:	BEP DATABASE PCODE
Identifying Code:	SITES
ID Value:	34-50-0001
Other ID Desc:	CALSITES ID NUMBER
Identifying Code:	SITES
ID Value:	34-28-0107
Other ID Desc:	CALSITES ID NUMBER
Identifying Code:	CSTAR
ID Value:	101408
Other ID Desc:	CALSTARS CODE
Alternate Name(s):	FOLSOM PRISON
Alternate Name(s):	FOLSOM STATE PRISON
Address(es) :	301 NORTH M STREET FOLSOM, CA 95630
Address(es) :	N OF FOLSOM CITY; ADJ TO AMERICAN RIVER REPRESA, CA 95671
Background Info :	Folsom Prison operates a license plate manufacturing plant onsite. Caustic stripping bath liquids and paint sludges were stored in a drum storage area or discharged into an evaporation pond. Other areas of contamination associated with the Prison site are a second evaporation pond used for cannery wastewater and a scrap metal disposal area, light industrial areas, and firing ranges. High levels (above 1,000 milligrams per kilogram) of chromium (Cr), copper (Cu), lead (Pb), nickel (Ni), and zinc (Zn) have been detected in the soil. Several specific areas have been identified and evaluated in a preliminary endangerment assessment. Folsom Prison is located north of the main part of the City of Folsom and directly south (0.5 mile) of Folsom Dam. The site is on a bluff adjacent (0.25 mile) to the American River. The site is located on fractured bedrock. Aquatic and human health may be affected if contamination reaches the American River. No drinking water wells exist in the vicinity.
Facility Id :	34920001
AWP Activities Code :	1
DTSC Site Activity Code :	SS
Activity Code Def:	SITE SCREENING
AWP Activity Id :	Not reported
Dt Activity Due For Completion :	Not reported
Revised Due Date :	Not reported
Date Activity Completed :	02061987
Est # Of Person-years To Complete :	0
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	VCP
Status Code Definition :	VOLUNTARY CLEANUP PROGRAM
Cubic Yards Of Solids Removed At Completion :	0
Gallons Of Liquid Removed Upon Completion :	0
Cubic Yards Of Solids Treated Upon Completion :	0
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported
Facility Id :	34920001
AWP Activities Code :	2
DTSC Site Activity Code :	RA
Activity Code Def:	REMOVAL ACTION

FOLSOM PRISON (Continued) **S101481890**

AWP Activity Id :	SLDGE
Dt Activity Due For Completion :	Not reported
Revised Due Date :	Not reported
Date Activity Completed :	09301988
Est # Of Person-years To Complete :	0
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	VCP
Status Code Definition :	VOLUNTARY CLEANUP PROGRAM
Cubic Yards Of Solids Removed At Completion :	0
Gallons Of Liquid Removed Upon Completion :	0
Cubic Yards Of Solids Treated Upon Completion :	0
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported
Facility Id :	34920001
AWP Activities Code :	3
DTSC Site Activity Code :	ORDER
Activity Code Def:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Activity Id :	AGREE
Dt Activity Due For Completion :	Not reported
Revised Due Date :	Not reported
Date Activity Completed :	12301988
Est # Of Person-years To Complete :	0
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	VCP
Status Code Definition :	VOLUNTARY CLEANUP PROGRAM
Cubic Yards Of Solids Removed At Completion :	0
Gallons Of Liquid Removed Upon Completion :	0
Cubic Yards Of Solids Treated Upon Completion :	0
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported
Facility Id :	34920001
AWP Activities Code :	4
DTSC Site Activity Code :	ERA
Activity Code Def:	EXPEDITED RESPONSE ACTION
AWP Activity Id :	SLDGE
Dt Activity Due For Completion :	Not reported
Revised Due Date :	Not reported
Date Activity Completed :	12041990
Est # Of Person-years To Complete :	0
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	VCP
Status Code Definition :	VOLUNTARY CLEANUP PROGRAM
Cubic Yards Of Solids Removed At Completion :	0
Gallons Of Liquid Removed Upon Completion :	0
Cubic Yards Of Solids Treated Upon Completion :	0
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported
Facility Id :	34920001
AWP Activities Code :	5
DTSC Site Activity Code :	RIFS
Activity Code Def:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Activity Id :	Not reported
Dt Activity Due For Completion :	Not reported
Revised Due Date :	Not reported
Date Activity Completed :	05311991
Est # Of Person-years To Complete :	0
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	VCP
Status Code Definition :	VOLUNTARY CLEANUP PROGRAM
Cubic Yards Of Solids Removed At Completion :	0

FOLSOM PRISON (Continued) **S101481890**

Gallons Of Liquid Removed Upon Completion :	0
Cubic Yards Of Solids Treated Upon Completion :	0
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported
Facility Id :	34920001
AWP Activities Code :	6
DTSC Site Activity Code :	RAP
Activity Code Def:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Activity Id :	Not reported
Dt Activity Due For Completion :	Not reported
Revised Due Date :	Not reported
Date Activity Completed :	06301992
Est # Of Person-years To Complete :	0
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	VCP
Status Code Definition :	VOLUNTARY CLEANUP PROGRAM
Cubic Yards Of Solids Removed At Completion :	0
Gallons Of Liquid Removed Upon Completion :	0
Cubic Yards Of Solids Treated Upon Completion :	0
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported
Facility Id :	34920001
AWP Activities Code :	7
DTSC Site Activity Code :	PEA
Activity Code Def:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Activity Id :	2
Dt Activity Due For Completion :	Not reported
Revised Due Date :	Not reported
Date Activity Completed :	04201994
Est # Of Person-years To Complete :	0
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	VCP
Status Code Definition :	VOLUNTARY CLEANUP PROGRAM
Cubic Yards Of Solids Removed At Completion :	0
Gallons Of Liquid Removed Upon Completion :	0
Cubic Yards Of Solids Treated Upon Completion :	0
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported
Facility Id :	34920001
AWP Activities Code :	8
DTSC Site Activity Code :	DES
Activity Code Def:	DESIGN
AWP Activity Id :	1
Dt Activity Due For Completion :	Not reported
Revised Due Date :	Not reported
Date Activity Completed :	12011994
Est # Of Person-years To Complete :	0
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	VCP
Status Code Definition :	VOLUNTARY CLEANUP PROGRAM
Cubic Yards Of Solids Removed At Completion :	0
Gallons Of Liquid Removed Upon Completion :	0
Cubic Yards Of Solids Treated Upon Completion :	0
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported
Facility Id :	34920001
AWP Activities Code :	9
DTSC Site Activity Code :	RMDL
Activity Code Def:	REMEDIAL ACTION (RAP REQUIRED)
AWP Activity Id :	1
Dt Activity Due For Completion :	Not reported

FOLSOM PRISON (Continued) **S101481890**

Revised Due Date :	Not reported
Date Activity Completed :	06281996
Est # Of Person-years To Complete :	0
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	VCP
Status Code Definition :	VOLUNTARY CLEANUP PROGRAM
Cubic Yards Of Solids Removed At Completion :	7600
Gallons Of Liquid Removed Upon Completion :	0
Cubic Yards Of Solids Treated Upon Completion :	0
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported
Facility Id :	34920001
AWP Activities Code :	10
DTSC Site Activity Code :	RIFS
Activity Code Def:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Activity Id :	SOIL
Dt Activity Due For Completion :	Not reported
Revised Due Date :	Not reported
Date Activity Completed :	03261997
Est # Of Person-years To Complete :	0
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	VCP
Status Code Definition :	VOLUNTARY CLEANUP PROGRAM
Cubic Yards Of Solids Removed At Completion :	0
Gallons Of Liquid Removed Upon Completion :	0
Cubic Yards Of Solids Treated Upon Completion :	0
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported
Facility Id :	34920001
AWP Activities Code :	11
DTSC Site Activity Code :	RAP
Activity Code Def:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Activity Id :	SOIL
Dt Activity Due For Completion :	Not reported
Revised Due Date :	Not reported
Date Activity Completed :	03181998
Est # Of Person-years To Complete :	0
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	VCP
Status Code Definition :	VOLUNTARY CLEANUP PROGRAM
Cubic Yards Of Solids Removed At Completion :	0
Gallons Of Liquid Removed Upon Completion :	0
Cubic Yards Of Solids Treated Upon Completion :	0
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported
Facility Id :	34920001
AWP Activities Code :	12
DTSC Site Activity Code :	DES
Activity Code Def:	DESIGN
AWP Activity Id :	SOIL
Dt Activity Due For Completion :	Not reported
Revised Due Date :	Not reported
Date Activity Completed :	05092000
Est # Of Person-years To Complete :	0
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	VCP
Status Code Definition :	VOLUNTARY CLEANUP PROGRAM
Cubic Yards Of Solids Removed At Completion :	0
Gallons Of Liquid Removed Upon Completion :	0
Cubic Yards Of Solids Treated Upon Completion :	0

FOLSOM PRISON (Continued) **S101481890**

Actvty Deleted Via Commitmnt/Completns Screen :	Not reported
Facility Id :	34920001
AWP Activities Code :	13
DTSC Site Activity Code :	RIFS
Activity Code Def:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Activity Id :	GW
Dt Activity Due For Completion :	Not reported
Revised Due Date :	Not reported
Date Activity Completed :	06302000
Est # Of Person-years To Complete :	0
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	VCP
Status Code Definition :	VOLUNTARY CLEANUP PROGRAM
Cubic Yards Of Solids Removed At Completion :	0
Gallons Of Liquid Removed Upon Completion :	0
Cubic Yards Of Solids Treated Upon Completion :	0
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported
Facility Id :	34920001
AWP Activities Code :	16
DTSC Site Activity Code :	RMDL
Activity Code Def:	REMEDIAL ACTION (RAP REQUIRED)
AWP Activity Id :	SOIL
Dt Activity Due For Completion :	Not reported
Revised Due Date :	Not reported
Date Activity Completed :	04182002
Est # Of Person-years To Complete :	0
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	VCP
Status Code Definition :	VOLUNTARY CLEANUP PROGRAM
Cubic Yards Of Solids Removed At Completion :	5500
Gallons Of Liquid Removed Upon Completion :	0
Cubic Yards Of Solids Treated Upon Completion :	0
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported
Facility Id :	34920001
AWP Activities Code :	18
DTSC Site Activity Code :	CERT
Activity Code Def:	CERTIFICATION
AWP Activity Id :	Not reported
Dt Activity Due For Completion :	12302004
Revised Due Date :	06302005
Date Activity Completed :	Not reported
Est # Of Person-years To Complete :	0
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	VCP
Status Code Definition :	VOLUNTARY CLEANUP PROGRAM
Cubic Yards Of Solids Removed At Completion :	0
Gallons Of Liquid Removed Upon Completion :	0
Cubic Yards Of Solids Treated Upon Completion :	0
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported
Facility Id :	34920001
AWP Activities Code :	19
DTSC Site Activity Code :	ORDER
Activity Code Def:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Activity Id :	IA2
Dt Activity Due For Completion :	Not reported
Revised Due Date :	Not reported
Date Activity Completed :	06261997

FOLSOM PRISON (Continued) **S101481890**

Est # Of Person-years To Complete :	0
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	VCP
Status Code Definition :	VOLUNTARY CLEANUP PROGRAM
Cubic Yards Of Solids Removed At Completion :	0
Gallons Of Liquid Removed Upon Completion :	0
Cubic Yards Of Solids Treated Upon Completion :	0
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported
Facility Id :	34920001
AWP Activities Code :	20
DTSC Site Activity Code :	CEQA
Activity Code Def:	CEQA INCLUDING NEGATIVE DECS
AWP Activity Id :	Not reported
Dt Activity Due For Completion :	Not reported
Revised Due Date :	Not reported
Date Activity Completed :	03181998
Est # Of Person-years To Complete :	0
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	VCP
Status Code Definition :	VOLUNTARY CLEANUP PROGRAM
Cubic Yards Of Solids Removed At Completion :	0
Gallons Of Liquid Removed Upon Completion :	0
Cubic Yards Of Solids Treated Upon Completion :	0
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported
Facility Id :	34920001
AWP Activities Code :	21
DTSC Site Activity Code :	CHP65
Activity Code Def:	AMENDED ORDER/AGREEMENT, CHAPTER 6.5 TRANSITION
AWP Activity Id :	ORDER
Dt Activity Due For Completion :	Not reported
Revised Due Date :	Not reported
Date Activity Completed :	12071998
Est # Of Person-years To Complete :	0
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	VCP
Status Code Definition :	VOLUNTARY CLEANUP PROGRAM
Cubic Yards Of Solids Removed At Completion :	0
Gallons Of Liquid Removed Upon Completion :	0
Cubic Yards Of Solids Treated Upon Completion :	0
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported
Facility Id :	34920001
AWP Activities Code :	22
DTSC Site Activity Code :	RAW
Activity Code Def:	REMOVAL ACTION WORKPLAN
AWP Activity Id :	GW
Dt Activity Due For Completion :	Not reported
Revised Due Date :	Not reported
Date Activity Completed :	03012001
Est # Of Person-years To Complete :	0
Est. Size Of An Activity Code :	Not reported
Site Status When Activity Commitment Made :	VCP
Status Code Definition :	VOLUNTARY CLEANUP PROGRAM
Cubic Yards Of Solids Removed At Completion :	0
Gallons Of Liquid Removed Upon Completion :	0
Cubic Yards Of Solids Treated Upon Completion :	0
Actvty Deleted Via Commitmnt/Completns Screen :	Not reported

FOLSOM PRISON (Continued) **S101481890**

Special Program Code: Not reported
Special Program : Not reported
Comments Date : 04201994
Comments : (Preliminary Endangerment Assessment) for the Folsom Prison project. 15 suspected areas were evaluated to determine if suspected releases or threatened releases pose a potential threat to public health and the environment. 9 of the 15 areas have been found to require additional investigative work and will proceed to the Remedial Investigation phase. The remaining 6 areas will require no further action.
Approx. cost = $69,000 (Reimbursement Funds)
DES/SOIL - The Department approved a remedial design workplan to address four units located at the folsom prison site. The workplan outlines steps for excavation and off-site disposal of impacted soil consistent with the selected remedial action strategy approved in a March 1998 RAP. Approximatedly 6000 cubic yards of soil are to be removed.
Remedial Investigation/Feasibility Study (RI/FS) completed for 4 areas of the site: PIA drum storage area, paint sludge evaporation pond and associated soil piles, scrap metal disposal area, and waste water pond #1.
THE 2001 REMOVAL ACTION WORK PLAN (RAW) FOR THE INDUSTRIAL MANUFACTURING AND PROCESSING AREA (IMPA) CONCLUDED THAT ONLY GROUNDWATER IS AFFECTED, WHERE CONTAMINATED GROUNDWATER OCCURS IN AN UNDERLYING BEDROCK WATER-BEARING ZONE THAT IS 20 TO 50 FEET BELOW GROUND SURFACE AND IS ALMOST COMPLETELY ISOLATED FROM THE MAIN AQUIFER. CONTAMINANTS IN THE AFFECTED GROUNDWATER INCLUDE BENZENE, ETHYLBENZENE, TOLUENE, AND TOTAL XYLENES (BTEX) AT LEVELS GREATER THAN CALIFORNIA DRINKING WATER STANDARDS. PURSUANT TO THE FEBRUARY 2001 RAW PREPARED BY DTSC, THE APPROVED REMEDY INCLUDED CONTINUED MONITORING OF GROUNDWATER TO CONFIRM REDUCTION OF BTEX CONCENTRATIONS TO RWQCB DRINKING WATER STANDARDS. AN OPERATION AND MAINTENANCE (O&M) AGREEMENT (DOCKET NUMBER HSA-A 04/05-198) WAS FULLY EXCUTED ON JUNE 23, 2005 BETWEEN THE DEPARTMENT OF TOXIC SUBSTANCES CONTROL AND THE CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION (CDCR) FOR CONTINUED GROUNDWATER MONITORING AT THE IMPA.
RMDL/1 -- DTSC approved completion of the remedial action design implementation activities for Site 1, Site 2, Site 2A, and Site 8. By letter of 12/20/95, Folsom Prison referred Site 3 back to DTSC for additional characterization and re-evaluation of alternatives to complete remediation as necessary. Completed activities are reported in the "Summary of Site Closure" (Porter Geotechnical, 2/22/96) and the "Clarification of Closure Report Addendum" (Folsom Prison, 6/27/96).
7600 cubic yards disposed to landfill; 3 acres cleaned up/ Commercial/industrial use only.
Remedial Action Plan (RAP) completed to select alternatives for remediation of soil contamination at the 4 areas investigated in the RI.
RI/FS - an RI/EECA DTS has been prepared to address groundwater contamination at the Industrial Manufacturing and Processing Area (IMPA) at the Folsom Prison Site. The RI/EECA has been prepared to summarize and document investigation findings and to evaluate

FOLSOM PRISON (Continued) **S101481890**

and propose a remedy for groundwater contamination encountered at the site. Groundwater contaminants include BTEX which have been detected above RWQCB MCL's.
Removal Action: Excavation of paint sludge.
Expedited Removal Action: Excavation of 450 cubic yards of soil contaminated with paint sludge and stockpiling of soil on site.
DESIGN -- Approval of design workplan for excavation and off-site disposal of soil from 5 separate areas of the site.
CHP65/STLMT -- DEPT. OF CORRECTIONS SIGNED THE AMENDMENT TO THEIR EXISTING ENFORCEABLE AGREEMENT TO INCLUDE CITATIONS UNDER CHAPTER 6.5 IN THE AUTHORITY SECTION OF THE AGREEMENT.
Enforceable Agreement: Dept of Corrections entered into an enforceable agreement and secured an interagency agreement with the DTSC to have DTSC regional contractors perform work
Site Screening Done: Mitre Model required.
RAW/GW -
DTSC has prepared and approved a final Removal Action Workplan to address groundwater contamination at the Industrial Manufacturing and Processing Area (IMPA) at the Folsom State Prison Site. The RAW has been prepared to summarize and document investigation findings and to approve a remedy for groundwater contamination encountered at the site. Groundwater contaminants include BTEX which have been detected above Regional Water Quality Control Board Maximum Contaminant Level (MCLs). The approved remedy consists of on-going monitoring of existing wells to confirm contaminant reduction continues to within RWQCB drinking water standards.
CEQA -- A NEGATIVE DECLARATION (ND) WAS PROPOSED FOR APPROVAL OF ACTIONS PROPOSED UNDER A REMEDIAL ACTION PLAN PREPARED FOR THE SUBJECT SITE. THE ND WAS MADE AVAILABLE FOR PUBLIC REVIEW FOR 30 DAYS FROM 12/15/97-1/13/98. A NOTICE WAS DISPLAYED IN THE SACRAMENTO BEE NEWSPAPER AND A FACT SHEET WAS MAILED TO THE SITE MAILING LIST TO PROVIDE INFORMATION AND ANNOUNCE THE COMMENT PERIOD AND A PUBLIC MEETING. ON 1/18/98, DTSC HELD A PUBLIC MEETING AT FOLSOM PRISON'S LARKIN HALL. AN INFORMATION REPOSITORY WAS ESTABLISHED AT THE DTSC-SACRAMENTO OFFICE FILE ROOM TO MAKE AVAILABLE FOR REVIEW THE DRAFT RAP, ND, AND SUPPORTING DOCUMENTS. NO COMMENTS WERE RECEIVED AND THE ND WAS APPROVED.
RAP/SOIL -- DTSC HAS APPROVED THE FINAL RAP. THE SUBJECT RAP WAS MADE AVAILABLE FOR PUBLIC REVIEW FOR 30 DAYS FROM 12/15/97 TO 1/13/98. A NOTICE WAS DISPLAYED IN THE SACRAMENTO BEE NEWSPAPER AND A FACT SHEET WAS MAILED TO THE SITE MAILING LIST TO PROVIDE INFORMATION AND ANNOUNCE THE COMMENT PERIOD AND A PUBLIC MEETING. ON 1/8/98, DTSC HELD A PUBLIC MEETING AT FOLSOM PRISON'S LARKIN HALL. AN INFORMATION REPOSITORY WAS ESTABLISHED AT THE DTSC-SACRAMENTO OFFICE FILE ROOM TO MAKE AVAILABLE FOR REVIEW THE DRAFT RAP, NEGATIVE DECLARATION, AND SUPPORTING DOCUMENTS. THE FINAL RAP OUTLINES THE CONCEPTUAL PROCESS FOR REMEDIATION OF SOIL CONTAMINATION. THE SELECTED REMEDY INVOLVES EXCAVATION OF APPROXIMATELY 6,000 CUBIC YARDS OF SOIL IMPACTED WITH METALS, PRIMARILY LEAD FROM THREE LOCATIONS (AREA 3-LARKIN HALL FIRING RANGE, SITE 3-SCRAP METAL DISPOSAL AREA, AND SITE 14-FORMER FIRING RANGE) AND AERATION OF UP TO 12 CUBIC YARDS OF TETRACHLOROETHENE-IMPACTED SOIL IN THE VICINITY

FOLSOM PRISON (Continued) **S101481890**

THE FORMER DRY CLEANING BUILDING.
RI/FS SOIL--DTSC has approved the Folsom Prison RI/FS phase of the project to address soil contamination for soils at over the entire site. The Feasibility Study primarily addresses evaluation of alternatives for cleanup of lead contaminated soils from firing ranges and a scrap disposal site. Ground-water investigation is ongoing.
SOIL - RMDL -- Soil removal completed in accordance with the Final Remedial Action Plan dated March 1998 and the Remedial Action Design Workplan dated March 2000.
PEA -- On April 20, 1994, the Department completed the PEA

CA DEEDS:
Deed Date(s) : 07/27/05

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38 **CITY OF FOLSOM/SOLID WASTE DIVISION** **HAZNET** **S102313640**
560 E NATOMA ST **Sacramento Co. CS** **N/A**
FOLSOM, CA 95630 **Sacramento Co. ML**

HAZNET:

Gepaid:	CAH111000384
TSD EPA ID:	Not reported
Gen County:	Sacramento
Tsd County:	Los Angeles
Tons:	1.07
Facility Address 2:	Not reported
Waste Category:	Household waste
Disposal Method:	Recycler
Contact:	DARIN AJAX/HAZ MAT COORDINATOR
Telephone:	(916) 985-4798
Mailing Name:	Not reported
Mailing Address:	50 NATOMA ST
	FOLSOM, CA 95630
County	Not reported

Gepaid:	CAH111000384
TSD EPA ID:	Not reported
Gen County:	Sacramento
Tsd County:	Los Angeles
Tons:	0.12
Facility Address 2:	Not reported
Waste Category:	Aqueous solution with less than 10% total organic residues
Disposal Method:	Transfer Station
Contact:	DARIN AJAX/HAZ MAT COORDINATOR
Telephone:	(916) 985-4798
Mailing Name:	Not reported
Mailing Address:	50 NATOMA ST
	FOLSOM, CA 95630
County	Not reported

Gepaid:	CAH111000384
TSD EPA ID:	Not reported
Gen County:	Sacramento
Tsd County:	Los Angeles
Tons:	0.35
Facility Address 2:	Not reported
Waste Category:	Other empty containers 30 gallons or more
Disposal Method:	Transfer Station
Contact:	DARIN AJAX/HAZ MAT COORDINATOR
Telephone:	(916) 985-4798

CITY OF FOLSOM/SOLID WASTE DIVISION (Continued) **S102313640**

Mailing Name: Not reported
Mailing Address: 50 NATOMA ST
FOLSOM, CA 95630
County Not reported

Gepaid: CAH111000384
TSD EPA ID: Not reported
Gen County: Sacramento
Tsd County: Los Angeles
Tons: 0.23
Facility Address 2: Not reported
Waste Category: Household waste
Disposal Method: Transfer Station
Contact: DARIN AJAX/HAZ MAT COORDINATOR
Telephone: (916) 985-4798
Mailing Name: Not reported
Mailing Address: 50 NATOMA ST
FOLSOM, CA 95630
County Not reported

Gepaid: CAH111000384
TSD EPA ID: Not reported
Gen County: Sacramento
Tsd County: Yolo
Tons: 0.20
Facility Address 2: Not reported
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Transfer Station
Contact: DARIN AJAX/HAZ MAT COORDINATOR
Telephone: (916) 985-4798
Mailing Name: Not reported
Mailing Address: 50 NATOMA ST
FOLSOM, CA 95630
County Not reported

Click this hyperlink while viewing on your computer to access
75 additional CA HAZNET record(s) in the EDR Site Report.

Sacramento ML:
Facility Id: Not reported
Number of Tanks: Not reported
WG Bill Code: Not reported
Food Bill Code : Not reported
Billing Codes BP: 5203
Billing Codes UST: Not reported
Tier Permitting: Not reported
Risk Mgmt Protection Program : Not reported
FD: Not reported
Target Property Bill Code: Not reported
CUPA Permit Date: Not reported
HAZMAT Permit Date: Not reported
HAZMAT Inspection Date: Not reported
UST Inspection Date: Not reported
UST Tank Test Date: Not reported
Waste General Insp Date: Not reported
Hazmat Date BP Received : Not reported
SIC Code : Not reported

CITY OF FOLSOM/SOLID WASTE DIVISION (Continued) **S102313640**

Facility Id:	Not reported
Number of Tanks:	Not reported
WG Bill Code:	5307*
Food Bill Code :	Not reported
Billing Codes BP:	5206*
Billing Codes UST:	Not reported
Tier Permitting:	Not reported
Risk Mgmt Protection Program :	Not reported
FD:	Not reported
Target Property Bill Code:	Not reported
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Waste General Insp Date:	Not reported
Hazmat Date BP Received :	Not reported
SIC Code :	Not reported

SACRAMENTO CS:

Facility Id:	RO0000936
Region:	SACRAMENTO
State Site Number:	0502/71502
Lead Staff:	RWB, R.
Lead Agency:	DT
Remedial Action Taken:	NO
Post Remedial Action Monitoring:	
Substance:	Solvents
Date Reported:	03/13/1989
Date Closed:	**Not reported**
Case Type:	Soil only

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38 **CALIFORNIA STATE PRISON GARAGE** **Sacramento Co. CS** **S105799094**
560 E NATOMA ST **N/A**
FOLSOM, CA

SACRAMENTO CS:

Facility Id:	RO0001482
Region:	SACRAMENTO
State Site Number:	G002
Lead Staff:	LEIBOLD, R.
Lead Agency:	HM
Remedial Action Taken:	NO
Post Remedial Action Monitoring:	
Substance:	Not reported
Date Reported:	Not reported
Date Closed:	**Not reported**
Case Type:	Other ground water affected

38 **FOLSOM CORRECTIONAL RESOURCE** **Sacramento Co. ML** **S104971060**
560 E NATOMA ST **N/A**
FOLSOM, CA 95630

Sacramento ML:

Facility Id:	Not reported
Number of Tanks:	Not reported
WG Bill Code:	5307*
Food Bill Code :	Not reported
Billing Codes BP:	5205*
Billing Codes UST:	Not reported
Tier Permitting:	Not reported
Risk Mgmt Protection Program :	Not reported
FD:	Not reported
Target Property Bill Code:	Not reported
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Waste General Insp Date:	Not reported
Hazmat Date BP Received :	Not reported
SIC Code :	Not reported

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38 **FOLSOM STATE PRISON** **Sacramento Co. CS** **S105067558**
560 E NATOMA **SWEEPS UST** **N/A**
REPRESA, CA 95671

SACRAMENTO CS:

Facility Id:	RO0000937
Region:	SACRAMENTO
State Site Number:	0501/71501
Lead Staff:	LEIBOLD, R.
Lead Agency:	HM
Remedial Action Taken:	NO

Post Remedial Action Monitoring:

Substance:	Diesel
Date Reported:	03/13/1989
Date Closed:	**Not reported**
Case Type:	Soil only
Facility Id:	RO0000939
Region:	SACRAMENTO
State Site Number:	0500/71500
Lead Staff:	LEIBOLD, R.
Lead Agency:	HM
Remedial Action Taken:	YES

Post Remedial Action Monitoring:

Substance:	Automotive(motor gasoline and additives)
Date Reported:	03/13/1989
Date Closed:	**Not reported**
Case Type:	Soil only

SWEEPS:

Status :	Not reported
Comp Number :	30064
Number :	Not reported
Board Of Equalization :	44-019184
Ref Date :	Not reported
Act Date :	Not reported
Created Date :	Not reported
Tank Status :	Not reported

FOLSOM STATE PRISON (Continued) **S105067558**

Owner Tank Id : Not reported
Swrcb Tank Id : 34-000-030064-000001
Actv Date : Not reported
Capacity : 1000
Tank Use : UNKNOWN
Stg : PRODUCT
Content : Not reported
Number Of Tanks : 15

Status : Not reported
Comp Number : 30064
Number : Not reported
Board Of Equalization : 44-019184
Ref Date : Not reported
Act Date : Not reported
Created Date : Not reported
Tank Status : Not reported
Owner Tank Id : Not reported
Swrcb Tank Id : 34-000-030064-000002
Actv Date : Not reported
Capacity : 550
Tank Use : M.V. FUEL
Stg : PRODUCT
Content : DIESEL
Number Of Tanks : Not reported

Status : Not reported
Comp Number : 30064
Number : Not reported
Board Of Equalization : 44-019184
Ref Date : Not reported
Act Date : Not reported
Created Date : Not reported
Tank Status : Not reported
Owner Tank Id : Not reported
Swrcb Tank Id : 34-000-030064-000003
Actv Date : Not reported
Capacity : 3000
Tank Use : M.V. FUEL
Stg : PRODUCT
Content : REG UNLEADED
Number Of Tanks : Not reported

Status : Not reported
Comp Number : 30064
Number : Not reported
Board Of Equalization : 44-019184
Ref Date : Not reported
Act Date : Not reported
Created Date : Not reported
Tank Status : Not reported
Owner Tank Id : Not reported
Swrcb Tank Id : 34-000-030064-000004
Actv Date : Not reported
Capacity : 1
Tank Use : OIL
Stg : WASTE

FOLSOM STATE PRISON (Continued) **S105067558**

Content : WASTE OIL
Number Of Tanks : Not reported

Status : Not reported
Comp Number : 30064
Number : Not reported
Board Of Equalization : 44-019184
Ref Date : Not reported
Act Date : Not reported
Created Date : Not reported
Tank Status : Not reported
Owner Tank Id : Not reported
Swrcb Tank Id : 34-000-030064-000005
Actv Date : Not reported
Capacity : 1
Tank Use : M.V. FUEL
Stg : PRODUCT
Content : DIESEL
Number Of Tanks : Not reported

Status : Not reported
Comp Number : 30064
Number : Not reported
Board Of Equalization : 44-019184
Ref Date : Not reported
Act Date : Not reported
Created Date : Not reported
Tank Status : Not reported
Owner Tank Id : Not reported
Swrcb Tank Id : 34-000-030064-000006
Actv Date : Not reported
Capacity : 1500
Tank Use : UNKNOWN
Stg : WASTE
Content : Not reported
Number Of Tanks : Not reported

Status : Not reported
Comp Number : 30064
Number : Not reported
Board Of Equalization : 44-019184
Ref Date : Not reported
Act Date : Not reported
Created Date : Not reported
Tank Status : Not reported
Owner Tank Id : Not reported
Swrcb Tank Id : 34-000-030064-000007
Actv Date : Not reported
Capacity : 5000
Tank Use : UNKNOWN
Stg : PRODUCT
Content : Not reported
Number Of Tanks : Not reported

Status : Not reported
Comp Number : 30064
Number : Not reported

FOLSOM STATE PRISON (Continued) **S105067558**

Board Of Equalization :	44-019184
Ref Date :	Not reported
Act Date :	Not reported
Created Date :	Not reported
Tank Status :	Not reported
Owner Tank Id :	Not reported
Swrcb Tank Id :	34-000-030064-000008
Actv Date :	Not reported
Capacity :	5000
Tank Use :	UNKNOWN
Stg :	PRODUCT
Content :	Not reported
Number Of Tanks :	Not reported

Status :	Not reported
Comp Number :	30064
Number :	Not reported
Board Of Equalization :	44-019184
Ref Date :	Not reported
Act Date :	Not reported
Created Date :	Not reported
Tank Status :	Not reported
Owner Tank Id :	Not reported
Swrcb Tank Id :	34-000-030064-000009
Actv Date :	Not reported
Capacity :	1000
Tank Use :	M.V. FUEL
Stg :	PRODUCT
Content :	LEADED
Number Of Tanks :	Not reported

Status :	Not reported
Comp Number :	30064
Number :	Not reported
Board Of Equalization :	44-019184
Ref Date :	Not reported
Act Date :	Not reported
Created Date :	Not reported
Tank Status :	Not reported
Owner Tank Id :	Not reported
Swrcb Tank Id :	34-000-030064-000010
Actv Date :	Not reported
Capacity :	500
Tank Use :	M.V. FUEL
Stg :	PRODUCT
Content :	DIESEL
Number Of Tanks :	Not reported

Status :	Not reported
Comp Number :	30064
Number :	Not reported
Board Of Equalization :	44-019184
Ref Date :	Not reported
Act Date :	Not reported
Created Date :	Not reported
Tank Status :	Not reported
Owner Tank Id :	Not reported

FOLSOM STATE PRISON (Continued) **S105067558**

Swrcb Tank Id : 34-000-030064-000011
Actv Date : Not reported
Capacity : 1000
Tank Use : M.V. FUEL
Stg : PRODUCT
Content : REG UNLEADED
Number Of Tanks : Not reported

Status : Not reported
Comp Number : 30064
Number : Not reported
Board Of Equalization : 44-019184
Ref Date : Not reported
Act Date : Not reported
Created Date : Not reported
Tank Status : Not reported
Owner Tank Id : Not reported
Swrcb Tank Id : 34-000-030064-000012
Actv Date : Not reported
Capacity : 8000
Tank Use : M.V. FUEL
Stg : PRODUCT
Content : LEADED
Number Of Tanks : Not reported

Status : Not reported
Comp Number : 30064
Number : Not reported
Board Of Equalization : 44-019184
Ref Date : Not reported
Act Date : Not reported
Created Date : Not reported
Tank Status : Not reported
Owner Tank Id : Not reported
Swrcb Tank Id : 34-000-030064-000013
Actv Date : Not reported
Capacity : 4000
Tank Use : M.V. FUEL
Stg : PRODUCT
Content : REG UNLEADED
Number Of Tanks : Not reported

Status : Not reported
Comp Number : 30064
Number : Not reported
Board Of Equalization : 44-019184
Ref Date : Not reported
Act Date : Not reported
Created Date : Not reported
Tank Status : Not reported
Owner Tank Id : Not reported
Swrcb Tank Id : 34-000-030064-000014
Actv Date : Not reported
Capacity : 4000
Tank Use : M.V. FUEL
Stg : PRODUCT
Content : REG UNLEADED

FOLSOM STATE PRISON (Continued) **S105067558**

Number Of Tanks :	Not reported
Status :	Not reported
Comp Number :	30064
Number :	Not reported
Board Of Equalization :	44-019184
Ref Date :	Not reported
Act Date :	Not reported
Created Date :	Not reported
Tank Status :	Not reported
Owner Tank Id :	Not reported
Swrcb Tank Id :	34-000-030064-000015
Actv Date :	Not reported
Capacity :	2000
Tank Use :	M.V. FUEL
Stg :	PRODUCT
Content :	REG UNLEADED
Number Of Tanks :	Not reported

---

38 **CHMIRS** **S105653560**

560 EAST NATUMA STREET **N/A**
FOLSOM, CA 95671

CHMIRS:

OES Control Number:	98-5100
Extent of Release:	Not reported
Property Use:	Not reported
Incident Date:	Not reported
Date Completed: Not reported	
Time Completed :	Not reported
Agency Id Number :	Not reported
Agency Incident Number :	Not reported
OES Incident Number :	98-5100
Time Notified :	Not reported
Surrounding Area :	Not reported
Estimated Temperature :	Not reported
Property Management :	Not reported
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Resp Agncy Personel # Of Decontaminated :	Not reported
Others Number Of Decontaminated :	Not reported
Others Number Of Injuries :	Not reported
Others Number Of Fatalities :	Not reported
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	Not reported
Report Date :	Not reported
Comments :	Not reported
Facility Telephone Number :	Not reported
Waterway Involved :	No

(Continued) **S105653560**

Waterway :	Not reported
Spill Site :	Not reported
Cleanup By :	Reporting Party
Containment :	Not reported
What Happened :	Not reported
Type :	Not reported
Other :	Not reported
Substance :	hydraulic oil
Quantity Released :	
E Date :	Not reported
Contained :	Yes
Site Type :	Other
Evacuations :	0
Num Of Injuries :	0
Num Of Fatalities :	0
Date/Time :	Not reported
Year :	1998
Agency :	DOC - Calif State Prison Sacramento
BBLS :	0
Cups :	0
CUFT :	0
Gallons :	10-15
Grams :	0
Pounds :	0
Liters :	0
Ounces :	0
Pints :	0
Quarts :	0
Sheen :	0
Tons :	0
Unknown :	0
Description :	When checking a drain plug it was removed too far and the hydraulic oil was released onto the asphalt - contained by dirt.
Incident date :	11/13/199812:00:00 AM
Admin Agency :	Sacramento County Environmental Mgmt.
OES date :	Not reported
OES time :	Not reported
OES notification :	11/13/199802:51:43 PM
Amount :	Not reported

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38 **CALIF STATE PRISON-SACRAMENTO** **Sacramento Co. ML** **S105067556**
560 E NATOMA ST **N/A**
REPRESA, CA 95671

Sacramento ML:

Facility Id:	Not reported
Number of Tanks:	Not reported
WG Bill Code:	5308
Food Bill Code :	Not reported
Billing Codes BP:	5205
Billing Codes UST:	5403*
Tier Permitting:	Not reported
Risk Mgmt Protection Program :	Not reported
FD:	Not reported
Target Property Bill Code:	Not reported
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
UST Inspection Date:	Not reported

CALIF STATE PRISON-SACRAMENTO (Continued) **S105067556**

UST Tank Test Date: Not reported
Waste General Insp Date: Not reported
Hazmat Date BP Received : Not reported
SIC Code : Not reported

---

38 **FOLSOM PRISON-GREEN VALLEY** **Sacramento Co. CS** **S105067557**
560 E NATOMA ST **N/A**
REPRESA, CA

SACRAMENTO CS:
Facility Id: RO0001190
Region: SACRAMENTO
State Site Number: D514
Lead Staff: LEIBOLD, R.
Lead Agency: HM
Remedial Action Taken: NO
Post Remedial Action Monitoring:
Substance: Automotive(motor gasoline and additives)
Date Reported: 04/17/1998
Date Closed: Not reported
Case Type: Soil only

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38 **PRISON IND AUTH CHEMICAL DIV** **SSTS** **1005435275**
560 E NATOMA ST **N/A**
FOLSOM, CA 95630

SSTS:
Product: SANI PINE CLEAN
Status: Active
Registration #: 010970CA 001
Report Year: 1990
Permit: Registered
Product #: 04737100105
Product Type: End-use blend, formulation, or concentrate
Product Class: Disinfectant, germicide, sanitizer
Product Use: All other products
Market: Marketed in the United States
Country: Not reported
Region: Not reported

Product: MEDI CLEAN
Status: Active
Registration #: 010970CA 001
Report Year: 1990
Permit: Registered
Product #: 04737100009
Product Type: End-use blend, formulation, or concentrate
Product Class: Disinfectant, germicide, sanitizer
Product Use: All other products
Market: Marketed in the United States
Country: Not reported
Region: Not reported

PRISON IND AUTH CHEMICAL DIV (Continued) **1005435275**

Product:	MEDI CLEAN & GERM CLEAN GERMICIDAL DETERGENT
Status:	Active
Registration #:	010970CA 001
Report Year:	1992
Permit:	Registered
Product #:	04737100009
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Disinfectant, germicide, sanitizer
Product Use:	All other products
Market:	Marketed in the United States
Country:	Not reported
Region:	Not reported

Product:	SANI PINE CLEAN CLEANER DISINFECTANT DEODORANT
Status:	Active
Registration #:	010970CA 001
Report Year:	1992
Permit:	Registered
Product #:	04737100105
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Disinfectant, germicide, sanitizer
Product Use:	All other products
Market:	Marketed in the United States
Country:	Not reported
Region:	Not reported

Product:	1801-GERM, GERMICIDAL DETERGENT
Status:	Active
Registration #:	010970CA 001
Report Year:	1996
Permit:	Registered
Product #:	04737100009010970
Product Type:	End-use blend, formulation, or concentrate
Product Class:	20
Product Use:	9
Market:	Marketed in the United States
Country:	Not reported
Region:	Not reported

Product:	1752 MEDI-CLEAN GERMICIDAL DETERGENT
Status:	Active
Registration #:	010970CA 001
Report Year:	1996
Permit:	Registered
Product #:	04737100009010970
Product Type:	End-use blend, formulation, or concentrate
Product Class:	20
Product Use:	9
Market:	Marketed in the United States
Country:	Not reported
Region:	Not reported

PRISON IND AUTH CHEMICAL DIV (Continued) **1005435275**

Product:	1757-SANI PINE, DISINFECTANT DEODORANT
Status:	Active
Registration #:	010970CA 001
Report Year:	1996
Permit:	Registered
Product #:	04737100105010970
Product Type:	End-use blend, formulation, or concentrate
Product Class:	20
Product Use:	9
Market:	Marketed in the United States
Country:	Not reported
Region:	Not reported

Product:	1752 MEDI CLEAN GERMICIDAL DETERGENT
Status:	Inactive
Registration #:	010970CA 001
Report Year:	Not reported
Permit:	Registered
Product #:	04737100009010970
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Disinfectant, germicide, sanitizer
Product Use:	All other products
Market:	Marketed in the United States
Country:	Not reported
Region:	Not reported

Product:	1757 SANI PINE DISINFECTANT DEODORANT
Status:	Inactive
Registration #:	010970CA 001
Report Year:	Not reported
Permit:	Registered
Product #:	04737100105010970
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Disinfectant, germicide, sanitizer
Product Use:	All other products
Market:	Marketed in the United States
Country:	Not reported
Region:	Not reported

Product:	MEDI CLEAN GERMICIDAL DETERGENT
Status:	Active
Registration #:	010970CA 001
Report Year:	1991
Permit:	Registered
Product #:	04737100009
Product Type:	End-use blend, formulation, or concentrate
Product Class:	Disinfectant, germicide, sanitizer
Product Use:	All other products
Market:	Marketed in the United States
Country:	Not reported
Region:	Not reported

PRISON IND AUTH CHEMICAL DIV (Continued) **1005435275**

Click this hyperlink while viewing on your computer to access
3 additional SSTS record(s) in the EDR Site Report.

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38 **PRISON INDUSTRY AUTHORITY** **FINDS** **1004439553**
560 E NATOMA ST **110011395686**
FOLSOM, CA 95630

FINDS:
Other Pertinent Environmental Activity Identified at Site:
NATIONAL COMPLIANCE DATABASE SYSTEM

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39 **FOLSOM COMMUNITY CORRECTIONAL FACILITY** **HAZNET** **S106093984**
570 E NATOMA ST **N/A**
FOLSOM, CA 95630

HAZNET:

Gepaid:	CAL000261351
TSD EPA ID:	Not reported
Gen County:	Sacramento
Tsd County:	Yolo
Tons:	0.58
Facility Address 2:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Transfer Station
Contact:	BILL WINCHESTER
Telephone:	(916) 985-5420
Mailing Name:	Not reported
Mailing Address:	570 E NATOMA ST FOLSOM, CA 95630
County	Not reported

Gepaid:	CAL000261351
TSD EPA ID:	Not reported
Gen County:	Sacramento
Tsd County:	Los Angeles
Tons:	0.16
Facility Address 2:	Not reported
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	Recycler
Contact:	BILL WINCHESTER
Telephone:	(916) 985-5420
Mailing Name:	Not reported
Mailing Address:	570 E NATOMA ST FOLSOM, CA 95630
County	Not reported

39 **CDFA FOLSOM FACILITY** **SLIC** **S106486615**
600 E. NATOMA **N/A**
FOLSOM, CA 95630

CA STATE SLIC :

Global Id :	SLT5S3513727
Region :	STATE
Assigned Name :	SLICSITE
Lead Agency Contact :	CORI CONDON
Lead Agency :	CENTRAL VALLEY RWQCB (REGION 5S)
Lead Agency Case Number :	SLT5S351
Responsible Party :	PAT MINARD
Recent Dtw :	Not reported
Facility Status :	**Case Open**
Substance Released :	FER, PHC

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39 **CALIFORNIA DEPT FOOD & AGRIC** **RCRA-SQG** **1000252377**
600 E NATOMA **FINDS** **CAD981966401**
FOLSOM, CA 95630 **HAZNET**

RCRAInfo:

Owner:	CALIFORNIA STATE OF (415) 555-1212
EPA ID:	CAD981966401
Contact:	ENVIRONMENTAL MANAGER (916) 985-3090
Classification:	Small Quantity Generator
TSDF Activities:	Not reported
Violation Status:	No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

HAZNET:

Gepaid:	CAD981966401
TSD EPA ID:	MND980791321
Gen County:	Sacramento
Tsd County:	99
Tons:	.1000
Facility Address 2:	Not reported
Waste Category:	
Disposal Method:	Not reported
Contact:	Not reported
Telephone:	(000) 000-0000
Mailing Name:	Not reported
Mailing Address:	1220 N STREET RM A-357 SACRAMENTO, CA 95814 - 5607
County	Sacramento

Gepaid:	CAD981966401
TSD EPA ID:	MND980791321
Gen County:	Sacramento
Tsd County:	99
Tons:	.1000
Facility Address 2:	Not reported
Waste Category:	
Disposal Method:	Treatment, Incineration
Contact:	Not reported
Telephone:	(000) 000-0000

CALIFORNIA DEPT FOOD & AGRIC (Continued) **1000252377**

Mailing Name: Not reported
Mailing Address: 1220 N STREET RM A-357
SACRAMENTO, CA 95814 - 5607
County Sacramento

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40 **RALPH'S #988** **Sacramento Co. ML** **S104654631**
25000 BLUE RAVINE RD **N/A**
FOLSOM, CA 95630

Sacramento ML:

Facility Id:	Not reported
Number of Tanks:	Not reported
WG Bill Code:	Not reported
Food Bill Code :	Not reported
Billing Codes BP:	5207
Billing Codes UST:	Not reported
Tier Permitting:	Not reported
Risk Mgmt Protection Program :	Not reported
FD:	Not reported
Target Property Bill Code:	Not reported
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Waste General Insp Date:	Not reported
Hazmat Date BP Received :	Not reported
SIC Code :	Not reported

---

40 **SUMMIT DENTAL** **Sacramento Co. ML** **S102955984**
25004 BLUE RAVINE RD, #111 **N/A**
FOLSOM, CA 95630

Sacramento ML:

Facility Id:	Not reported
Number of Tanks:	Not reported
WG Bill Code:	5320
Food Bill Code :	Not reported
Billing Codes BP:	Not reported
Billing Codes UST:	Not reported
Tier Permitting:	Not reported
Risk Mgmt Protection Program :	Not reported
FD:	Not reported
Target Property Bill Code:	Not reported
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Waste General Insp Date:	Not reported
Hazmat Date BP Received :	Not reported
SIC Code :	Not reported

41 **FOLSOM MATERIALS RECOVERY & COMPOSTING** **SWF/LF** **S102361843**
N OF NEW FOLSOM PRISON CMPLX OFF NATOMA **N/A**
REPRESA (IN FOLSOM), CA

LF:

Facility ID:	34-AC-0002	Operator:	Prison Industry Authority, St. Of Calif.
Operator Addr:	560 East Natoma Street Folsom, CA 95630		
Date:	Not reported		
Address:	Not reported		
Prep By:	Not reported		
DOHS Number:	Not reported		
CUP Number:	Not reported		
CIWMB:	Not reported		
Activity:	Composting Facility (Green Waste)		
Operator's Status:	Active		
Owner:	Calif Dept Of Corrections		
Facility Phone 2 :	Not reported		
Owner Address:	Not reported P.O. Box 942883 - Room 139 South Sacramento, CA 94283		
Operator Phone:	(916) 323-5483	Owner Telephone:	(916) 323-5483
Regulation Status:	Permitted	Region:	STATE
Location:	Not reported		
Parcel Num:	Not reported		
Parcel Num 2 :	Not reported		
Land Use:	Not reported		
Sig. Change Since Last Visit:	Not reported		
Site Size:	Not reported		
Other Observations:	Not reported		
Issue And Observations:	Not reported		
Recommendations / Follow Up:	Not reported		
Program Type:	Not reported		
Public Notice:	Not reported		
PERMTIER:	Not reported		
Lat/Long:	38.68972 / -121.15611	Permit Date:	9/16/1999
Accepted Waste:			
Restrictions:			

Status :	Not reported	Swisnumber :	Not reported
Site Type :	Not reported	Aka :	Not reported
Type Of Waste :	Not reported	Disposal Area :	Not reported
SWFP Date :	Not reported	WDR Number :	Not reported
Dates Operation :	Not reported	Closure Approve :	Not reported
Dt Of Field Units :	Not reported	Surface Condition :	Not reported
Lea Date :	Not reported	Reassess Site :	Not reported
Leachate :	Not reported	Emrgncy Response	Not reported
Landfill Gas :	Not reported		
Priority For Site Assessment :	Not reported		
Other Recommendation :	Not reported		
Explanation:	Not Reported		
No Further Action:	Not Reported		
Permitted Throughput with Units:	78		
Actual Throughput with Units:	Tons/day		
Actual Capacity with Units:	78		
Permitted Capacity with Units:	78		
Remaining Capacity with Units:	Tons/day		
Permitted Total Acreage:	8		
Remaining Capacity :	Not reported		

FOLSOM MATERIALS RECOVERY & COMPOSTING (Continued) **S102361843**

Fill Area:	Not reported	Inspec Frequency :	Monthly
Landuse Name:	Not reported	GIS Source:	Map
Permit Status:	Permitted	Category:	Composting
Unit Number:	02	Closure Date:	/ /
Closure Type:	Not reported	Disposal Acreage:	Not reported
Year Opened:	Not reported	Year Closed:	Not reported

Last Waste Tire Inspection Count : Not reported
Last Waste Tire Inspection Date: Not reported
Original Waste Tire Count: Not reported
Original Waste Tire Count Date: Not reported
Type Of Refuse: Not reported
Avg Depth Of Fill: Not reported
Addtl Expansion Area: Not reported
Site Description: Not Reported

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42 **EMPIRE RANCH GOLF CLUB** **Sacramento Co. ML** **S105629218**
1620 E NATOMAS ST **N/A**
FOLSOM, CA 95630

Sacramento ML:

Facility Id:	Not reported
Number of Tanks:	Not reported
WG Bill Code:	5306
Food Bill Code :	Not reported
Billing Codes BP:	5204
Billing Codes UST:	Not reported
Tier Permitting:	Not reported
Risk Mgmt Protection Program :	Not reported
FD:	Not reported
Target Property Bill Code:	Not reported
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Waste General Insp Date:	Not reported
Hazmat Date BP Received :	Not reported
SIC Code :	Not reported

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43 **FOLSOM HILLS ELEMENTARY** **FINDS** **1008312739**
106 MANSEAU DR. **110022059733**
FOLSOM, CA 95630

FINDS:
Other Pertinent Environmental Activity Identified at Site:
NATIONAL CENTER FOR EDUCATION STATISTICS

44 **FOLSOM WATER TREATMENT PLANT** **AST** **A100210989**
194 RANDALL DRIVE **N/A**
FOLSOM, CA 95630

AST:
Owner: CITY OF FOLSOM
Total Gallons: 4000

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44 **CHMIRS** **S107449033**
194 RANDALL DR. **N/A**
FOLSOM, CA

CHMIRS:

OES Control Number:	04-1487
Extent of Release:	Not reported
Property Use:	Not reported
Incident Date:	Not reported
Date Completed: Not reported	
Time Completed :	Not reported
Agency Id Number :	Not reported
Agency Incident Number :	Not reported
OES Incident Number :	04-1487
Time Notified :	Not reported
Surrounding Area :	Not reported
Estimated Temperature :	Not reported
Property Management :	Not reported
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Resp Agncy Personel # Of Decontaminated :	Not reported
Others Number Of Decontaminated :	Not reported
Others Number Of Injuries :	Not reported
Others Number Of Fatalities :	Not reported
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	Not reported
Report Date :	Not reported
Comments :	Not reported
Facility Telephone Number :	Not reported
Waterway Involved :	Not reported
Waterway :	Willow Creek
Spill Site :	Not reported
Cleanup By :	Reporting Party
Containment :	Not reported
What Happened :	Not reported
Type :	Not reported
Other :	Not reported
Substance :	Drinking Water
Quantity Released :	
E Date :	Not reported

(Continued) **S107449033**

Contained :	Yes
Site Type :	Treatment/Sewage Facility
Evacuations :	0
Num Of Injuries :	0
Num Of Fatalities :	0
Date/Time :	Not reported
Year :	2004
Agency :	Not reported
BBLS :	0
Cups :	0
CUFT :	0
Gallons :	1000
Grams :	0
Pounds :	0
Liters :	0
Ounces :	0
Pints :	0
Quarts :	0
Sheen :	0
Tons :	0
Unknown :	0
Description :	A contractor hit pipe and caused spill.
Incident date :	3/16/200412:00:00 AM
Admin Agency :	Sacramento County Environmental Mgmt.
OES date :	Not reported
OES time :	Not reported
OES notification :	Not reported
Amount :	Not reported

44 **CITY OF FOLSOM WATER TREATMENT PLANT** **HAZNET** **S104796038**
194 RANDALL DR **Sacramento Co. ML** **N/A**
FOLSOM, CA 95630

HAZNET:

Gepaid:	CAL000255200
TSD EPA ID:	Not reported
Gen County:	Sacramento
Tsd County:	Los Angeles
Tons:	0.20
Facility Address 2:	Not reported
Waste Category:	Other inorganic solid waste
Disposal Method:	Disposal, Land Fill
Contact:	JAMES BRIDGES/PLT SUP
Telephone:	(916) 355-8339
Mailing Name:	Not reported
Mailing Address:	194 RANDALL DR FOLSOM, CA 95630
County	Not reported

Gepaid:	CAL000255200
TSD EPA ID:	CAT080033681
Gen County:	Sacramento
Tsd County:	Sacramento
Tons:	0.15
Facility Address 2:	Not reported
Waste Category:	Other organic solids
Disposal Method:	Disposal, Land Fill
Contact:	JAMES BRIDGES/PLT SUP
Telephone:	(916) 355-8339

CITY OF FOLSOM WATER TREATMENT PLANT (Continued) **S104796038**

Mailing Name: FOLSOM WATER TREATMENT PLANT
Mailing Address: 194 RANDALL DR
FOLSOM, CA 95630
County Sacramento

Gepaid: CAC002205945
TSD EPA ID: CAD044003556
Gen County: Sacramento
Tsd County: Yolo
Tons: .4170
Facility Address 2: Not reported
Waste Category: Unspecified oil-containing waste
Disposal Method: Transfer Station
Contact: CITY OF FOLSOM
Telephone: (000) 000-0000
Mailing Name: Not reported
Mailing Address: 194 RANDALL DR
FOLSOM, CA 95630
County Sacramento

Gepaid: CAC001324496
TSD EPA ID: CAD044003556
Gen County: Sacramento
Tsd County: Yolo
Tons: .2085
Facility Address 2: Not reported
Waste Category: Unspecified oil-containing waste
Disposal Method: Transfer Station
Contact: CW ROWEN CONSTRUCTION
Telephone: (925) 837-5501
Mailing Name: Not reported
Mailing Address: PO BOX 4
DANVILLE, CA 94526
County Sacramento

Sacramento ML:
Facility Id: Not reported
Number of Tanks: 0
WG Bill Code: 51
Food Bill Code : 51
Billing Codes BP: Out of Business
Billing Codes UST: No Tanks
Tier Permitting: Not reported
Risk Mgmt Protection Program : Not reported
FD: L
Target Property Bill Code: 51
CUPA Permit Date: Not reported
HAZMAT Permit Date: Not reported
HAZMAT Inspection Date: Not reported
UST Inspection Date: Not reported
UST Tank Test Date: Not reported
Waste General Insp Date: Not reported
Hazmat Date BP Received : Not reported
SIC Code : Not reported

CITY OF FOLSOM WATER TREATMENT PLANT (Continued) **S104796038**

Facility Id:	Not reported
Number of Tanks:	Not reported
WG Bill Code:	5306
Food Bill Code :	Not reported
Billing Codes BP:	5204
Billing Codes UST:	Not reported
Tier Permitting:	Not reported
Risk Mgmt Protection Program :	5902*
FD:	Not reported
Target Property Bill Code:	Not reported
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Waste General Insp Date:	Not reported
Hazmat Date BP Received :	Not reported
SIC Code :	Not reported

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45 **TOM HOWARD MOVING SERVICE** **Sacramento Co. ML** **S105808269**
236 SPENCER ST **N/A**
FOLSO, CA 95630

Sacramento ML:

Facility Id:	Not reported
Number of Tanks:	0
WG Bill Code:	50
Food Bill Code :	50
Billing Codes BP:	Disclaimer
Billing Codes UST:	No Tanks
Tier Permitting:	Not reported
Risk Mgmt Protection Program :	Not reported
FD:	L
Target Property Bill Code:	50
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Waste General Insp Date:	Not reported
Hazmat Date BP Received :	Not reported
SIC Code :	Not reported

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46 **CINGULAR WIRELESS** **Sacramento Co. ML** **S102956466**
771 OAK AV PKWY **N/A**
FOLSOM, CA 95630

CINGULAR WIRELESS (Continued) **S102956466**

Sacramento ML:

Facility Id:	Not reported
Number of Tanks:	Not reported
WG Bill Code:	Not reported
Food Bill Code :	Not reported
Billing Codes BP:	5203
Billing Codes UST:	Not reported
Tier Permitting:	Not reported
Risk Mgmt Protection Program :	Not reported
FD:	Not reported
Target Property Bill Code:	Not reported
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Waste General Insp Date:	Not reported
Hazmat Date BP Received :	Not reported
SIC Code :	Not reported

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47 **BLANCHE SPRENTZ ELEMENTARY SCHOOL** **HAZNET** **S106087454**
249 FLOWER DR **N/A**
FOLSOM, CA 95630

HAZNET:

Gepaid:	CAC002552473
TSD EPA ID:	Not reported
Gen County:	Sacramento
Tsd County:	San Joaquin
Tons:	3.36
Facility Address 2:	Not reported
Waste Category:	Asbestos-containing waste
Disposal Method:	Disposal, Land Fill
Contact:	GRANT SMITH
Telephone:	(916) 812-8693
Mailing Name:	Not reported
Mailing Address:	125 E BIDWELL ST FOLSOM, CA 95630
County	Not reported

Gepaid:	CAC002552473
TSD EPA ID:	Not reported
Gen County:	Sacramento
Tsd County:	99
Tons:	0.53
Facility Address 2:	Not reported
Waste Category:	Other inorganic solid waste
Disposal Method:	Not reported
Contact:	GRANT SMITH
Telephone:	(916) 812-8693
Mailing Name:	Not reported
Mailing Address:	125 E BIDWELL ST FOLSOM, CA 95630
County	Not reported

47 **FOLSOM CORDOVA USD BLANCHE SPRENTZ** **RCRA-SQG** **1000384008**
249 FLOWER CIRCLE **FINDS** **CAD981668692**
FOLSOM, CA 95630

RCRAInfo:
Owner: NOT REQUIRED
(415) 555-1212
EPA ID: CAD981668692

Contact: Not reported

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

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47 **BLANCHE SPRENTZ ELEM. SCHOOL** **Sacramento Co. ML** **S105269177**
249 FLOWER CR **N/A**
FOLSO, CA 95630

Sacramento ML:

Facility Id:	Not reported
Number of Tanks:	0
WG Bill Code:	50
Food Bill Code :	50
Billing Codes BP:	Disclaimer
Billing Codes UST:	No Tanks
Tier Permitting:	Not reported
Risk Mgmt Protection Program :	Not reported
FD:	L
Target Property Bill Code:	50
CUPA Permit Date:	Not reported
HAZMAT Permit Date:	Not reported
HAZMAT Inspection Date:	Not reported
UST Inspection Date:	Not reported
UST Tank Test Date:	Not reported
Waste General Insp Date:	Not reported
Hazmat Date BP Received :	Not reported
SIC Code :	Not reported

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47 **SPRENTZ (BLANCHE) ELEMENTARY** **FINDS** **1008312276**
249 FLOWER DR. **110022059458**
FOLSOM, CA 95630

FINDS:
Other Pertinent Environmental Activity Identified at Site:
NATIONAL CENTER FOR EDUCATION STATISTICS

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
COUNTY	U001612913	FOLSOM DAM	SAME AS ABOVE	95630	HIST UST
EL DORADO	A100184481	PILOT HILL FFS	PEDRO HILL RD	95664	AST
EL DORADO HILLS	S105954489	PROMONTORY ELEMENTARY SCHOOL	3371 BRITTANY WAY	95762	SCH
EL DORADO HILLS	A100115649	BROWN'S RAVINE, FOLSOM LAKE	BROWN'S RAVINE-FOLSOM LAKE	95762	AST
EL DORADO HILLS	S104567748	CALIFORNIA EMERGENCY FOOD LINK	SW CORNER OF EL DORADO BLVD / PARK ST	95762	HAZNET
EL DORADO HILLS	S106932756	T-2 LIFT STATION	CROWN DR	95762	SWEEPS UST
EL DORADO HILLS	U001612933	T-2 LIFT STATION	CROWN DRIVE	95762	HIST UST
EL DORADO HILLS	S103678651	EL DORADO IRRIGATION DISTRICT	EL DORADO HILL BLVD AT THE END	95762	HAZNET
EL DORADO HILLS	1007490845	EL DORADO HILLS NATURALLY OCCURRING ASBESTOS	EL DORADO HILLS BOULEVARD	95762	CERCLIS
EL DORADO HILLS	U001612932	T-1 LIFT STATION	FRANCISCO DRIVE	95762	HIST UST
EL DORADO HILLS	S103979450	NORMAN L. CHRISTENSEN	6610 GREEN VALLEY	95762	HAZNET
EL DORADO HILLS	S105799364	HIGHLANDS VILLAGE LIFT	LAKERIDGE DRIVE	95762	HIST UST
EL DORADO HILLS	S106927286	HIGHLANDS VILLAGE LIFT STATION	LAKERIDGE DR	95762	SWEEPS UST
EL DORADO HILLS	U003895494	HIGHLANDS VILLAGE LIFT	LAKERIDGE DR	95762	UST
EL DORADO HILLS	S106929874	NEW YORK CREEK LIFT STATION	MALCOM DIXON RD	95762	SWEEPS UST
EL DORADO HILLS	U001612924	NEW YORK CREEK LIFT STA.	MALCOM DIXON ROAD	95762	HIST UST
EL DORADO HILLS	U001612923	MARINA VILLAGE LIFT STA.	MARINA LIFT ACCESS	95762	HIST UST, SWEEPS UST
EL DORADO HILLS	S103962540	EL DORADO IRRIGATION DISTRICT	1/4 MILE OFF CROWN DRIVE	95762	HAZNET
EL DORADO HILLS	S103962547	EL DORADO IRRIGATION DISTRICT	OFF MALCOLM DIXON RD	95762	HAZNET
EL DORADO HILLS	S107138334	WEIS RECYCLE CENTERS INC/RALEYS 424	3935 PARK DR STE A	95762	SWRCY
EL DORADO HILLS	U001612929	RIDGE VIEW LIFT STATION	POWERS DRIVE	95762	HIST UST
EL DORADO HILLS	S102808744	EL DORADO IRRIGATION DIST	RIDGE VIEW DRIVE	95762	HAZNET
EL DORADO HILLS	S104582412	MAIL WELL ENVELOPES	5220 ROBERT J MATTHEWS	95762	HAZNET
FOLSO	S102313061	FM 105 RADIO STATION	CARPENTER HILL	95630	Sacramento Co. ML
FOLSO	S105270869	FOLSOM STATION	OAKDALE / BIDWELL	95630	Sacramento Co. ML
FOLSOM	S106825831	AMERICAN RIVER ASPHALT	AMERICAN RIVER AGGREGATE DRIVE	95630	EMI
FOLSOM	S101332645	AMERICAN RIVER AGGREGATES	AMERICAN AGGREGRATE RD	95630	LUST, Cortese, Sacramento Co. CS, Sacramento Co. ML
FOLSOM	S106104291	FOLSOM AUTO MALL DEALERS ASSOC	AUTO MALL DRIVE		CA WDS
FOLSOM	92256680	BACK OF "B" FACILITY ON "NEW" FOLSOM IN BACK OF GUN RANGE, W	BACK OF "B" FACILITY ON "NEW" FOLSOM IN BACK OF GUN RANGE, W	95630	ERNS
FOLSOM	1006837391	FOLSOM EAST BIDWELL	EAST BIDWELL AND RILEY ROAD		FINDS
FOLSOM	S107139519	P G & E	E BIDWELL ST 2 MI N OF HWY 50	95630	HAZNET
FOLSOM	S107447344	FOLSOM HOT TUBS & BILLIARDS	411 BLUE RAVINE RD 100	95630	Sacramento Co. ML
FOLSOM	S103706855	N G CLEANERS	24988 BLUE RAVINE RD 112	95630	Sacramento Co. ML
FOLSOM	S106167335	N. G. CLEANERS	24988 BLUE RAVIN #112	95630	CLEANERS
FOLSOM	1006805760	COSTCO WHOLESALE #765	1800 CAVITT DR	95630	RCRA-SQG, FINDS
FOLSOM	1006873635	COSTCO WHOLESALE	1800 CAVITT CT	95630	Sacramento Co. ML
FOLSOM	S107538188		CORNER OF STAFFORD / NATOMA STREETS	95630	CDL
FOLSOM	1000252403	CALIFORNIA DEPT OF FORESTRY	#1 DAM ROAD	95630	RCRA-SQG, FINDS
FOLSOM	S106087401	TRI	7160 DOUGLAS BLVD	95630	HAZNET
FOLSOM	S106926291	FOLSOM LAKE MARINA/BROWN'S RAVINE	FOLSOM LAKE	95762	SWEEPS UST

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
FOLSOM	1000250706	PACIFIC BELL C/O ALLEN UC048	2700 FOLSOM BLVD	95630	RCRA-SQG, FINDS
FOLSOM	S101590836	PRISON INDUSTRY AUTHORITY	1 FOLSOM DAM RD	95630	CA FID UST, Sacramento Co. ML, SWEEPS UST
FOLSOM	S106541814	P J CARPENTER DC	6693 FOLSOM AUBURN RD 6	95630	Sacramento Co. ML
FOLSOM	U001612918	GREEN VALLEY CONSERVATION CAMP	#1 FOLSOM DAM RD	95630	HAZNET, HIST UST
FOLSOM	S106873010	GOLD RUSH AUTO SPA	7620 FOLSOM-AUBURN RD	95630	Sacramento Co. ML
FOLSOM	S107447432	VERIZON WIRELESS BIDWELL	HALVERSON	95630	Sacramento Co. ML
FOLSOM	S101590673	CITY OF FOLSOM CORPORATION YD	1300 LEIDESDORFF ST	95630	CA FID UST, SWEEPS UST
FOLSOM	U001612908		1300 LEIDESDORFF STREET	95630	CHMIRS, HIST UST
FOLSOM	S106782287	FORMER FOLSOM LAKE FORD	9479B MADISON AVE		Sacramento Co. CS
FOLSOM	S107530806		211 MORMON ST	95630	CDL
FOLSOM	1007999742	LOCATED 200 FT. SSW OF FOLSOM CITY HALL	50 NATOMA STREET, FOLSOM		FINDS
FOLSOM	S106104277	CORRECTIONAL RESOURCE	560 E NATOMA ST # B	95630	CA WDS
FOLSOM	S105083541	PACIFIC GAS & ELECTRIC	2MI S OF FOLSOM ON OLD PLACERVILLE RD	95630	HAZNET
FOLSOM	S107540161		ORANGEVALE AVE / WINDING CANYON	95630	CDL
FOLSOM	S106967416	FOLSOM LAKE COLLISION CENTER	300 PLAZA DR	95630	Sacramento Co. ML
FOLSOM	1007218606	FOLSOM COLLISION CENTER	300 PLAZA DR	95630	FINDS
FOLSOM	1007117594	FOLSOM COLLISION CENTER	300 PLAZA DR	95630	RCRA-SQG
FOLSOM	S103672931	1X FOLSOM AUTO TECH	806 D REEDING STREET	95630	HAZNET
FOLSOM	S105982673	CALIF. DEPARTMENT OF CORRECTIONS, FOLSOM PRISON	REPRESA		SLIC
FOLSOM	1008312288	FOLSOM LAKE HIGH (CONT.)	715A RILEY ST.	95630	FINDS
FOLSOM	S106780526	FOLSOM LAKE COLLEGE	100 SCHOLAR WAY	95630	Sacramento Co. ML
FOLSOM	S106388144	BODYCRAFT COLLISION CNTR OF FOLSOM	1128 SIBLEY ST H	95630	Sacramento Co. ML
FOLSOM	S106152464	FOLSOM AUTO TECH	1126 SIBLEY ST A	95630	Sacramento Co. ML
FOLSOM	S101627823	WILSON RANCH	WHITE ROCK RD	95630	CA FID UST, SWEEPS UST
FOLSOM	S106388237	AMERICAN TOWER CORP SITE 8105, 8106	15125 WHITE ROCK RD	95630	Sacramento Co. ML
FOLSOM	U001612939	WILSON RANCH	WHITE ROCK ROAD	95630	HIST UST
FOLSOM	S101480011	WILLOW DUMP	WILLOW CREEK / BLUE RAVINE ROAD	95630	REF
GRANITE	S106534244	ELITE CLEANERS	4060 DOUGLAS BLVD 111	95746	CA PLACER CO. MS
GRANITE BAY	S106167408	ELITE CLEANERS	4060 DOUGLAS BLVD STE 111	95746	CLEANERS
GRANITE BAY	S104180982	P G & E (HORSESHOE SUBSTAT)	OAK KNOLL DR	95746	CA PLACER CO. MS
GRANITE BAY	S107540846		TALLPINE LANE, NORTH OF REBA DRIVE	95746	CDL
LO	S106715800	KODIAK ROOFING & WATERPROOFING CO.	3930A SIERRA COLLEGE BLVD	95650	CA PLACER CO. MS
LO	S106715801	KODIAK ROOFING & WATERPROOFING CO.	3930A SIERRA COLLEGE BLVD	95650	CA PLACER CO. MS
LOOMIS	S107504385	NEXTEL SITE:CA1398/LAIRD	5398 LAIRD RD	95650	CA PLACER CO. MS
LOOMIS	S104915660	SMITH, LEONARD E.	6200 OAK RIDGE ROAD	95650	CA PLACER CO. MS
LOOMIS	S104915638	SEARS CONSTRUCTION	ROCKCREST PHASE III	95650	CA PLACER CO. MS
LOOMIS	S107140161	KODIAK ROOFING INC	3930 SIERRA COLLEGE BLVD STE A	95650	HAZNET
LOOMIS	S107540682		SIERRA COLLEGE RD AT BANKHEAD RD	95650	CDL
ORANG	S105268002	MARCO MUFFLER	9282 AUBURN BL	95662	Sacramento Co. ML
PILOT HILL	S106932729	SWEETS PILOT HILL MARKET	4400 HIGHWAY 49	95664	SWEEPS UST
PILOT HILL	U001613455	SMITH'S PILOT HILL MARKET	HIGHWAY 49	95664	HIST UST
PILOT HILL	S106930590	PENINSULA CAMPGROUND	NEGRO HILL RD	95664	SWEEPS UST
PILOT HILL	U001613165	PENINSULA CAMPGROUND	NEGRO HILL ROAD	95664	HIST UST
PILOT HILL	S106930700	PILOT HILL F.F.S.	PEDRO HILL RD	95664	SWEEPS UST
PILOT HILL	U001613454	PILOT HILL F.F.S.	PEDRO HILL RD.	95664	HIST UST

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
RANCHO CORDOVA	S103679832	AEROJET GENERAL CORPORATION	SCOTT RD / WHITE RD	95630	HAZNET
ROCKLIN	S105675659		MIDAS AVE. AT NATHAN CT.	95650	CHMIRS, CA PLACER CO. MS
SACRAMENTO	S105954553	SACRAMENTO COUNTRY DAY SCHOOL	WHITE ROCK ROAD	95630	SCH
SACRAMENTO COUNTY	S106389177		----------VOID ----------		HAZNET, CHMIRS
SACRAMENTO COUNTY	S105641112		TWITCHELL ISLAND ROAD .5 MI WEST OF RIO VISTA		CHMIRS, SLIC

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

FEDERAL RECORDS

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 11/29/2005
Date Data Arrived at EDR: 01/31/2006
Date Made Active in Reports: 02/27/2006
Number of Days to Update: 27

Source: EPA
Telephone: N/A
Last EDR Contact: 03/01/2006
Next Scheduled EDR Contact: 05/01/2006
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 8
Telephone: 303-312-6774

EPA Region 4
Telephone 404-562-8033

Proposed NPL: Proposed National Priority List Sites

Date of Government Version: 11/29/2005
Date Data Arrived at EDR: 01/31/2006
Date Made Active in Reports: 02/27/2006
Number of Days to Update: 27

Source: EPA
Telephone: N/A
Last EDR Contact: 03/01/2006
Next Scheduled EDR Contact: 05/01/2006
Data Release Frequency: Quarterly

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 11/29/2005
Date Data Arrived at EDR: 01/31/2006
Date Made Active in Reports: 02/27/2006
Number of Days to Update: 27

Source: EPA
Telephone: N/A
Last EDR Contact: 03/01/2006
Next Scheduled EDR Contact: 05/01/2006
Data Release Frequency: Quarterly

NPL RECOVERY: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 03/06/2006
Next Scheduled EDR Contact: 05/22/2006
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/24/2005
Date Data Arrived at EDR: 12/21/2005
Date Made Active in Reports: 01/30/2006
Number of Days to Update: 40

Source: EPA
Telephone: 703-413-0223
Last EDR Contact: 03/21/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Quarterly

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

Date of Government Version: 10/24/2005
Date Data Arrived at EDR: 12/21/2005
Date Made Active in Reports: 01/30/2006
Number of Days to Update: 40

Source: EPA
Telephone: 703-413-0223
Last EDR Contact: 03/21/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Quarterly

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/29/2005
Date Data Arrived at EDR: 01/11/2006
Date Made Active in Reports: 02/21/2006
Number of Days to Update: 41

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/06/2006
Next Scheduled EDR Contact: 06/05/2006
Data Release Frequency: Quarterly

RCRA: Resource Conservation and Recovery Act Information

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/15/2005
Date Data Arrived at EDR: 12/28/2005
Date Made Active in Reports: 01/30/2006
Number of Days to Update: 33

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/01/2006
Next Scheduled EDR Contact: 04/24/2006
Data Release Frequency: Quarterly

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 01/12/2006
Date Made Active in Reports: 02/21/2006
Number of Days to Update: 40

Source: National Response Center, United States Coast Guard
Telephone: 202-260-2342
Last EDR Contact: 01/12/2006
Next Scheduled EDR Contact: 04/24/2006
Data Release Frequency: Annually

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 01/16/2006
Date Made Active in Reports: 02/21/2006
Number of Days to Update: 36

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 01/16/2006
Next Scheduled EDR Contact: 04/17/2006
Data Release Frequency: Annually

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 08/02/2005
Date Data Arrived at EDR: 08/12/2005
Date Made Active in Reports: 10/06/2005
Number of Days to Update: 55

Source: Environmental Protection Agency
Telephone: 703-603-8867
Last EDR Contact: 03/03/2006
Next Scheduled EDR Contact: 04/03/2006
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/10/2005
Date Data Arrived at EDR: 02/11/2005
Date Made Active in Reports: 04/06/2005
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 703-603-8867
Last EDR Contact: 03/03/2006
Next Scheduled EDR Contact: 04/03/2006
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2004
Date Data Arrived at EDR: 02/08/2005
Date Made Active in Reports: 08/04/2005
Number of Days to Update: 177

Source: USGS
Telephone: 703-692-8801
Last EDR Contact: 02/06/2006
Next Scheduled EDR Contact: 05/08/2006
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 01/19/2006
Date Made Active in Reports: 02/21/2006
Number of Days to Update: 33

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 01/19/2006
Next Scheduled EDR Contact: 04/03/2006
Data Release Frequency: Varies

US BROWNFIELDS: A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 11/29/2005
Date Data Arrived at EDR: 12/05/2005
Date Made Active in Reports: 01/30/2006
Number of Days to Update: 56

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/13/2006
Next Scheduled EDR Contact: 06/12/2006
Data Release Frequency: Semi-Annually

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/14/2004
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 04/25/2005
Number of Days to Update: 69

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 03/13/2006
Next Scheduled EDR Contact: 04/24/2006
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 12/07/2005
Date Data Arrived at EDR: 01/06/2006
Date Made Active in Reports: 02/21/2006
Number of Days to Update: 46

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 01/04/2006
Next Scheduled EDR Contact: 04/03/2006
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 11/04/2005
Date Data Arrived at EDR: 11/28/2005
Date Made Active in Reports: 01/30/2006
Number of Days to Update: 63

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 03/20/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2003
Date Data Arrived at EDR: 07/13/2005
Date Made Active in Reports: 08/17/2005
Number of Days to Update: 35

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 03/21/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2002
Date Data Arrived at EDR: 04/27/2004
Date Made Active in Reports: 05/21/2004
Number of Days to Update: 24

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 03/06/2006
Next Scheduled EDR Contact: 04/17/2006
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 01/17/2006
Date Data Arrived at EDR: 01/24/2006
Date Made Active in Reports: 02/27/2006
Number of Days to Update: 34

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 03/20/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Date of Government Version: 01/17/2006
Date Data Arrived at EDR: 01/24/2006
Date Made Active in Reports: 02/27/2006
Number of Days to Update: 34

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 03/20/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Quarterly

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2003
Date Data Arrived at EDR: 01/03/2005
Date Made Active in Reports: 01/25/2005
Number of Days to Update: 22

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 03/06/2006
Next Scheduled EDR Contact: 04/17/2006
Data Release Frequency: Annually

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 12/27/2005
Date Data Arrived at EDR: 02/08/2006
Date Made Active in Reports: 02/27/2006
Number of Days to Update: 19

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 02/08/2006
Next Scheduled EDR Contact: 05/08/2006
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/18/2005
Date Data Arrived at EDR: 10/31/2005
Date Made Active in Reports: 12/20/2005
Number of Days to Update: 50

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 02/08/2006
Next Scheduled EDR Contact: 04/03/2006
Data Release Frequency: Quarterly

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/08/2005
Date Data Arrived at EDR: 12/27/2005
Date Made Active in Reports: 01/30/2006
Number of Days to Update: 34

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 12/27/2005
Next Scheduled EDR Contact: 03/27/2006
Data Release Frequency: Semi-Annually

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 01/09/2006
Date Data Arrived at EDR: 01/16/2006
Date Made Active in Reports: 02/21/2006
Number of Days to Update: 36

Source: EPA
Telephone: N/A
Last EDR Contact: 01/03/2006
Next Scheduled EDR Contact: 04/03/2006
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 03/06/2006
Next Scheduled EDR Contact: 06/05/2006
Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2003
Date Data Arrived at EDR: 06/17/2005
Date Made Active in Reports: 08/04/2005
Number of Days to Update: 48

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 03/17/2006
Next Scheduled EDR Contact: 06/12/2006
Data Release Frequency: Biennially

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STATE AND LOCAL RECORDS

AWP: Annual Workplan Sites

Known Hazardous Waste Sites. California DTSC's Annual Workplan (AWP), formerly BEP, identifies known hazardous substance sites targeted for cleanup.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/29/2005
Date Made Active in Reports: 09/21/2005
Number of Days to Update: 23

Source: California Environmental Protection Agency
Telephone: 916-323-3400
Last EDR Contact: 03/16/2006
Next Scheduled EDR Contact: 05/29/2006
Data Release Frequency: Annually

CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/29/2005
Date Made Active in Reports: 09/21/2005
Number of Days to Update: 23

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 03/15/2006
Next Scheduled EDR Contact: 05/29/2006
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NFA: No Further Action Determination

This category contains properties at which DTSC has made a clear determination that the property does not pose a problem to the environment or to public health.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/29/2005
Date Made Active in Reports: 10/06/2005
Number of Days to Update: 38

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/15/2006
Next Scheduled EDR Contact: 05/29/2006
Data Release Frequency: Quarterly

NFE: Properties Needing Further Evaluation

This category contains properties that are suspected of being contaminated. These are unconfirmed contaminated properties that need to be assessed using the PEA process. PEA in Progress indicates properties where DTSC is currently conducting a PEA. PEA Required indicates properties where DTSC has determined a PEA is required, but not currently underway.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/29/2005
Date Made Active in Reports: 09/21/2005
Number of Days to Update: 23

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/15/2006
Next Scheduled EDR Contact: 05/29/2006
Data Release Frequency: Quarterly

REF: Unconfirmed Properties Referred to Another Agency

This category contains properties where contamination has not been confirmed and which were determined as not requiring direct DTSC Site Mitigation Program action or oversight. Accordingly, these sites have been referred to another state or local regulatory agency.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/29/2005
Date Made Active in Reports: 10/06/2005
Number of Days to Update: 38

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/15/2006
Next Scheduled EDR Contact: 05/29/2006
Data Release Frequency: Quarterly

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/29/2005
Date Made Active in Reports: 10/06/2005
Number of Days to Update: 38

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/15/2006
Next Scheduled EDR Contact: 05/29/2006
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/30/2006
Next Scheduled EDR Contact: 05/01/2006
Data Release Frequency: No Update Planned

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 12/08/2005
Date Data Arrived at EDR: 12/13/2005
Date Made Active in Reports: 01/19/2006
Number of Days to Update: 37

Source: Integrated Waste Management Board
Telephone: 916-341-6320
Last EDR Contact: 03/15/2006
Next Scheduled EDR Contact: 06/12/2006
Data Release Frequency: Quarterly

CA WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 12/19/2005
Date Data Arrived at EDR: 12/21/2005
Date Made Active in Reports: 01/19/2006
Number of Days to Update: 29

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 03/21/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Quarterly

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 03/06/2006
Next Scheduled EDR Contact: 06/05/2006
Data Release Frequency: Quarterly

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites). This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 05/29/2001
Date Made Active in Reports: 07/26/2001
Number of Days to Update: 58

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-9100
Last EDR Contact: 02/06/2006
Next Scheduled EDR Contact: 04/24/2006
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 01/05/2006
Date Data Arrived at EDR: 01/09/2006
Date Made Active in Reports: 01/31/2006
Number of Days to Update: 22

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 01/09/2006
Next Scheduled EDR Contact: 04/10/2006
Data Release Frequency: Quarterly

LUST: Geotracker's Leaking Underground Fuel Tank Report
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 01/09/2006
Date Data Arrived at EDR: 01/09/2006
Date Made Active in Reports: 01/31/2006
Number of Days to Update: 22

Source: State Water Resources Control Board
Telephone: 916-341-5752
Last EDR Contact: 01/09/2006
Next Scheduled EDR Contact: 04/10/2006
Data Release Frequency: Quarterly

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 12/27/2005
Next Scheduled EDR Contact: 03/27/2006
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 916-542-5424
Last EDR Contact: 03/06/2006
Next Scheduled EDR Contact: 06/05/2006
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 01/16/2006
Next Scheduled EDR Contact: 04/17/2006
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-4130
Last EDR Contact: 02/06/2006
Next Scheduled EDR Contact: 05/08/2006
Data Release Frequency: Varies

LUST REG 7: Leaking Underground Storage Tank Case Listing

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-346-7491
Last EDR Contact: 12/27/2005
Next Scheduled EDR Contact: 03/27/2006
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-346-7491
Last EDR Contact: 01/04/2006
Next Scheduled EDR Contact: 04/03/2006
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Date of Government Version: 01/15/2006
Date Data Arrived at EDR: 01/16/2006
Date Made Active in Reports: 02/21/2006
Number of Days to Update: 36

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 01/16/2006
Next Scheduled EDR Contact: 04/03/2006
Data Release Frequency: Quarterly

LUST REG 3: Leaking Underground Storage Tank Database

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 02/13/2006
Next Scheduled EDR Contact: 05/15/2006
Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-576-2220
Last EDR Contact: 02/20/2006
Next Scheduled EDR Contact: 05/22/2006
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 01/09/2006
Next Scheduled EDR Contact: 04/10/2006
Data Release Frequency: Quarterly

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SLIC: Statewide SLIC Cases

The Spills, Leaks, Investigations, and Cleanups (SLIC) listings includes unauthorized discharges from spills and leaks, other than from underground storage tanks or other regulated sites.

Date of Government Version: 01/09/2006
Date Data Arrived at EDR: 01/09/2006
Date Made Active in Reports: 01/31/2006
Number of Days to Update: 22

Source: State Water Resources Control Board
Telephone: 916-341-5752
Last EDR Contact: 01/09/2006
Next Scheduled EDR Contact: 04/10/2006
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 02/20/2006
Next Scheduled EDR Contact: 05/22/2006
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 01/09/2006
Next Scheduled EDR Contact: 04/10/2006
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 02/17/2006
Date Data Arrived at EDR: 02/17/2006
Date Made Active in Reports: 03/13/2006
Number of Days to Update: 24

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 02/13/2006
Next Scheduled EDR Contact: 05/15/2006
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 01/23/2006
Next Scheduled EDR Contact: 04/24/2006
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

Unregulated sites that impact groundwater or have the potential to impact groundwater.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 01/16/2006
Next Scheduled EDR Contact: 04/03/2006
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 01/06/2006
Next Scheduled EDR Contact: 04/03/2006
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 03/06/2006
Next Scheduled EDR Contact: 06/05/2006
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 03/06/2006
Next Scheduled EDR Contact: 05/22/2006
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 01/17/2006
Date Made Active in Reports: 02/21/2006
Number of Days to Update: 35

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 01/17/2006
Next Scheduled EDR Contact: 04/03/2006
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

Date of Government Version: 12/14/2005
Date Data Arrived at EDR: 12/14/2005
Date Made Active in Reports: 01/19/2006
Number of Days to Update: 36

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 03/13/2006
Next Scheduled EDR Contact: 05/29/2006
Data Release Frequency: Annually

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 01/09/2006
Date Data Arrived at EDR: 01/09/2006
Date Made Active in Reports: 01/31/2006
Number of Days to Update: 22

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 01/09/2006
Next Scheduled EDR Contact: 04/10/2006
Data Release Frequency: Semi-Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

AST: Aboveground Petroleum Storage Tank Facilities

Registered Aboveground Storage Tanks.

Date of Government Version: 01/30/2006
Date Data Arrived at EDR: 01/30/2006
Date Made Active in Reports: 02/17/2006
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5712
Last EDR Contact: 01/30/2006
Next Scheduled EDR Contact: 05/01/2006
Data Release Frequency: Quarterly

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1980's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/2004
Date Data Arrived at EDR: 11/30/2005
Date Made Active in Reports: 01/19/2006
Number of Days to Update: 50

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 02/20/2006
Next Scheduled EDR Contact: 05/22/2006
Data Release Frequency: Varies

NOTIFY 65: Proposition 65 Records

Proposition 65 Notification Records. NOTIFY 65 contains facility notifications about any release which could impact drinking water and thereby expose the public to a potential health risk.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 01/16/2006
Next Scheduled EDR Contact: 04/17/2006
Data Release Frequency: No Update Planned

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 01/03/2006
Date Data Arrived at EDR: 01/04/2006
Date Made Active in Reports: 01/19/2006
Number of Days to Update: 15

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/03/2006
Next Scheduled EDR Contact: 04/03/2006
Data Release Frequency: Semi-Annually

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/29/2005
Date Made Active in Reports: 09/21/2005
Number of Days to Update: 23

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/15/2006
Next Scheduled EDR Contact: 05/29/2006
Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 04/18/2005
Date Data Arrived at EDR: 04/18/2005
Date Made Active in Reports: 05/06/2005
Number of Days to Update: 18

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 01/04/2006
Next Scheduled EDR Contact: 04/03/2006
Data Release Frequency: Annually

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 01/23/2006
Date Data Arrived at EDR: 01/24/2006
Date Made Active in Reports: 02/21/2006
Number of Days to Update: 28

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 01/23/2006
Next Scheduled EDR Contact: 04/24/2006
Data Release Frequency: Varies

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/10/2006
Date Made Active in Reports: 03/13/2006
Number of Days to Update: 31

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 02/08/2006
Next Scheduled EDR Contact: 04/24/2006
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2003
Date Data Arrived at EDR: 10/11/2005
Date Made Active in Reports: 10/31/2005
Number of Days to Update: 20

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 02/24/2006
Next Scheduled EDR Contact: 05/08/2006
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2003
Date Data Arrived at EDR: 07/19/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 23

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 01/16/2006
Next Scheduled EDR Contact: 04/17/2006
Data Release Frequency: Varies

TRIBAL RECORDS

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2004
Date Data Arrived at EDR: 02/08/2005
Date Made Active in Reports: 08/04/2005
Number of Days to Update: 177

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 02/06/2006
Next Scheduled EDR Contact: 05/08/2006
Data Release Frequency: Semi-Annually

INDIAN LUST: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 09/07/2005
Date Data Arrived at EDR: 09/08/2005
Date Made Active in Reports: 10/31/2005
Number of Days to Update: 53

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/10/2006
Next Scheduled EDR Contact: 05/22/2006
Data Release Frequency: Varies

INDIAN LUST: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 12/01/2005
Date Data Arrived at EDR: 01/03/2006
Date Made Active in Reports: 01/19/2006
Number of Days to Update: 16

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 02/20/2006
Next Scheduled EDR Contact: 05/22/2006
Data Release Frequency: Varies

INDIAN UST: Underground Storage Tanks on Indian Land

Date of Government Version: 11/08/2005
Date Data Arrived at EDR: 11/09/2005
Date Made Active in Reports: 12/12/2005
Number of Days to Update: 33

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 02/20/2006
Next Scheduled EDR Contact: 05/22/2006
Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites
A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 02/16/2006
Date Data Arrived at EDR: 02/17/2006
Date Made Active in Reports: 03/13/2006
Number of Days to Update: 24

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/23/2006
Next Scheduled EDR Contact: 04/24/2006
Data Release Frequency: Semi-Annually

Underground Tanks

Date of Government Version: 11/08/2005
Date Data Arrived at EDR: 11/10/2005
Date Made Active in Reports: 12/08/2005
Number of Days to Update: 28

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 02/27/2006
Next Scheduled EDR Contact: 04/24/2006
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 12/09/2005
Date Data Arrived at EDR: 12/09/2005
Date Made Active in Reports: 01/19/2006
Number of Days to Update: 41

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 03/13/2006
Next Scheduled EDR Contact: 05/29/2006
Data Release Frequency: Semi-Annually

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 01/18/2006
Date Data Arrived at EDR: 01/18/2006
Date Made Active in Reports: 02/21/2006
Number of Days to Update: 34

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 01/18/2006
Next Scheduled EDR Contact: 05/08/2006
Data Release Frequency: Semi-Annually

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing

Kern County Sites and Tanks Listing.

Date of Government Version: 12/09/2005
Date Data Arrived at EDR: 12/09/2005
Date Made Active in Reports: 01/11/2006
Number of Days to Update: 33

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 03/20/2006
Next Scheduled EDR Contact: 06/05/2006
Data Release Frequency: Quarterly

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 07/07/1999
Date Made Active in Reports: N/A
Number of Days to Update: 0

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 07/06/1999
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

City of El Segundo Underground Storage Tank

Date of Government Version: 11/14/2005
Date Data Arrived at EDR: 11/14/2005
Date Made Active in Reports: 12/08/2005
Number of Days to Update: 24

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 02/27/2006
Next Scheduled EDR Contact: 05/15/2006
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

City of Long Beach Underground Storage Tank

Date of Government Version: 03/28/2003
Date Data Arrived at EDR: 10/23/2003
Date Made Active in Reports: 11/26/2003
Number of Days to Update: 34

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 02/24/2006
Next Scheduled EDR Contact: 05/22/2006
Data Release Frequency: Annually

City of Torrance Underground Storage Tank

Date of Government Version: 11/29/2005
Date Data Arrived at EDR: 12/01/2005
Date Made Active in Reports: 12/16/2005
Number of Days to Update: 15

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 02/27/2006
Next Scheduled EDR Contact: 05/15/2006
Data Release Frequency: Semi-Annually

HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 10/31/2005
Date Data Arrived at EDR: 01/30/2006
Date Made Active in Reports: 02/21/2006
Number of Days to Update: 22

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 02/13/2006
Next Scheduled EDR Contact: 05/15/2006
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities

Date of Government Version: 02/14/2006
Date Data Arrived at EDR: 02/28/2006
Date Made Active in Reports: 03/13/2006
Number of Days to Update: 13

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 02/15/2006
Next Scheduled EDR Contact: 05/15/2006
Data Release Frequency: Varies

City of Los Angeles Landfills

Date of Government Version: 03/01/2005
Date Data Arrived at EDR: 03/18/2005
Date Made Active in Reports: 04/08/2005
Number of Days to Update: 21

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 03/15/2006
Next Scheduled EDR Contact: 06/12/2006
Data Release Frequency: Varies

Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/05/2006
Date Data Arrived at EDR: 02/16/2006
Date Made Active in Reports: 03/13/2006
Number of Days to Update: 25

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 02/03/2006
Next Scheduled EDR Contact: 05/15/2006
Data Release Frequency: Annually

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/26/2005
Date Made Active in Reports: 09/28/2005
Number of Days to Update: 33

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 01/30/2006
Next Scheduled EDR Contact: 05/01/2006
Data Release Frequency: Semi-Annually

NAPA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Sites With Reported Contamination

Date of Government Version: 12/27/2005
Date Data Arrived at EDR: 12/28/2005
Date Made Active in Reports: 01/19/2006
Number of Days to Update: 22

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 12/27/2005
Next Scheduled EDR Contact: 03/27/2006
Data Release Frequency: Semi-Annually

Closed and Operating Underground Storage Tank Sites

Date of Government Version: 12/27/2005
Date Data Arrived at EDR: 12/28/2005
Date Made Active in Reports: 01/11/2006
Number of Days to Update: 14

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 12/27/2005
Next Scheduled EDR Contact: 03/27/2006
Data Release Frequency: Annually

ORANGE COUNTY:

List of Industrial Site Cleanups

Petroleum and non-petroleum spills.

Date of Government Version: 12/01/2005
Date Data Arrived at EDR: 12/20/2005
Date Made Active in Reports: 01/19/2006
Number of Days to Update: 30

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 03/08/2006
Next Scheduled EDR Contact: 06/05/2006
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups

Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 12/01/2005
Date Data Arrived at EDR: 12/20/2005
Date Made Active in Reports: 01/19/2006
Number of Days to Update: 30

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 03/08/2006
Next Scheduled EDR Contact: 06/05/2006
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities

Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 12/01/2005
Date Data Arrived at EDR: 12/16/2005
Date Made Active in Reports: 01/11/2006
Number of Days to Update: 26

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 03/08/2006
Next Scheduled EDR Contact: 06/05/2006
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 01/18/2006
Date Data Arrived at EDR: 01/18/2006
Date Made Active in Reports: 02/21/2006
Number of Days to Update: 34

Source: Placer County Health and Human Services
Telephone: 530-889-7312
Last EDR Contact: 03/20/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Underground Storage Tank Tank List

Date of Government Version: 02/09/2006
Date Data Arrived at EDR: 02/10/2006
Date Made Active in Reports: 03/09/2006
Number of Days to Update: 27

Source: Health Services Agency
Telephone: 951-358-5055
Last EDR Contact: 01/16/2006
Next Scheduled EDR Contact: 04/17/2006
Data Release Frequency: Quarterly

Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 02/09/2006
Date Data Arrived at EDR: 02/10/2006
Date Made Active in Reports: 03/13/2006
Number of Days to Update: 31

Source: Department of Public Health
Telephone: 951-358-5055
Last EDR Contact: 01/16/2006
Next Scheduled EDR Contact: 04/17/2006
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS - Contaminated Sites

Date of Government Version: 02/02/2006
Date Data Arrived at EDR: 02/13/2006
Date Made Active in Reports: 03/13/2006
Number of Days to Update: 28

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/30/2006
Next Scheduled EDR Contact: 05/01/2006
Data Release Frequency: Quarterly

ML - Regulatory Compliance Master List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/02/2006
Date Data Arrived at EDR: 02/10/2006
Date Made Active in Reports: 03/13/2006
Number of Days to Update: 31

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/30/2006
Next Scheduled EDR Contact: 05/01/2006
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 12/21/2005
Date Data Arrived at EDR: 12/21/2005
Date Made Active in Reports: 01/19/2006
Number of Days to Update: 29

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 03/06/2006
Next Scheduled EDR Contact: 06/05/2006
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 05/16/2005
Date Data Arrived at EDR: 05/18/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 29

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 01/20/2006
Next Scheduled EDR Contact: 04/03/2006
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 11/01/2005
Date Data Arrived at EDR: 12/29/2005
Date Made Active in Reports: 01/19/2006
Number of Days to Update: 21

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 02/20/2006
Next Scheduled EDR Contact: 05/22/2006
Data Release Frequency: Varies

SAN FRANCISCO COUNTY:

Local Oversite Facilities

Date of Government Version: 12/07/2005
Date Data Arrived at EDR: 12/07/2005
Date Made Active in Reports: 01/19/2006
Number of Days to Update: 43

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 03/06/2006
Next Scheduled EDR Contact: 06/05/2006
Data Release Frequency: Quarterly

Underground Storage Tank Information

Date of Government Version: 12/07/2005
Date Data Arrived at EDR: 12/07/2005
Date Made Active in Reports: 01/11/2006
Number of Days to Update: 35

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 03/06/2006
Next Scheduled EDR Contact: 06/05/2006
Data Release Frequency: Quarterly

SAN MATEO COUNTY:

Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 01/09/2006
Date Data Arrived at EDR: 01/10/2006
Date Made Active in Reports: 01/31/2006
Number of Days to Update: 21

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 01/09/2006
Next Scheduled EDR Contact: 04/10/2006
Data Release Frequency: Annually

Fuel Leak List

Date of Government Version: 01/11/2006
Date Data Arrived at EDR: 01/12/2006
Date Made Active in Reports: 01/31/2006
Number of Days to Update: 19

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 01/09/2006
Next Scheduled EDR Contact: 04/10/2006
Data Release Frequency: Semi-Annually

SANTA CLARA COUNTY:

Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 12/27/2005
Next Scheduled EDR Contact: 03/27/2006
Data Release Frequency: No Update Planned

LOP Listing

A listing of open leaking underground storage tanks.

Date of Government Version: 10/24/2005
Date Data Arrived at EDR: 11/28/2005
Date Made Active in Reports: 12/12/2005
Number of Days to Update: 14

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 12/27/2005
Next Scheduled EDR Contact: 03/27/2006
Data Release Frequency: Varies

Hazardous Material Facilities

Date of Government Version: 12/12/2005
Date Data Arrived at EDR: 12/12/2005
Date Made Active in Reports: 01/19/2006
Number of Days to Update: 38

Source: City of San Jose Fire Department
Telephone: 408-277-4659
Last EDR Contact: 03/06/2006
Next Scheduled EDR Contact: 06/05/2006
Data Release Frequency: Annually

SOLANO COUNTY:

Leaking Underground Storage Tanks

Date of Government Version: 12/13/2005
Date Data Arrived at EDR: 12/14/2005
Date Made Active in Reports: 01/19/2006
Number of Days to Update: 36

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/13/2006
Next Scheduled EDR Contact: 06/12/2006
Data Release Frequency: Quarterly

Underground Storage Tanks

Date of Government Version: 10/13/2005
Date Data Arrived at EDR: 10/31/2005
Date Made Active in Reports: 12/08/2005
Number of Days to Update: 38

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/13/2006
Next Scheduled EDR Contact: 06/12/2006
Data Release Frequency: Quarterly

SONOMA COUNTY:

Leaking Underground Storage Tank Sites

Date of Government Version: 01/23/2006
Date Data Arrived at EDR: 01/23/2006
Date Made Active in Reports: 02/21/2006
Number of Days to Update: 29

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 01/23/2006
Next Scheduled EDR Contact: 04/24/2006
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks

Date of Government Version: 12/31/0005
Date Data Arrived at EDR: 01/05/2006
Date Made Active in Reports: 01/31/2006
Number of Days to Update: 26

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 01/03/2006
Next Scheduled EDR Contact: 04/03/2006
Data Release Frequency: Semi-Annually

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 11/30/2005
Date Data Arrived at EDR: 01/04/2006
Date Made Active in Reports: 01/19/2006
Number of Days to Update: 15

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/15/2006
Next Scheduled EDR Contact: 06/12/2006
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 08/01/2005
Date Data Arrived at EDR: 09/20/2005
Date Made Active in Reports: 10/06/2005
Number of Days to Update: 16

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/20/2006
Next Scheduled EDR Contact: 05/22/2006
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 11/30/2005
Date Data Arrived at EDR: 01/03/2006
Date Made Active in Reports: 01/19/2006
Number of Days to Update: 16

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/15/2006
Next Scheduled EDR Contact: 06/12/2006
Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 12/29/2005
Date Data Arrived at EDR: 01/20/2006
Date Made Active in Reports: 02/15/2006
Number of Days to Update: 26

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/11/2006
Next Scheduled EDR Contact: 04/10/2006
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Date of Government Version: 01/18/2006
Date Data Arrived at EDR: 02/09/2006
Date Made Active in Reports: 03/09/2006
Number of Days to Update: 28

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 01/16/2006
Next Scheduled EDR Contact: 04/17/2006
Data Release Frequency: Annually

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

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with any questions or comments.

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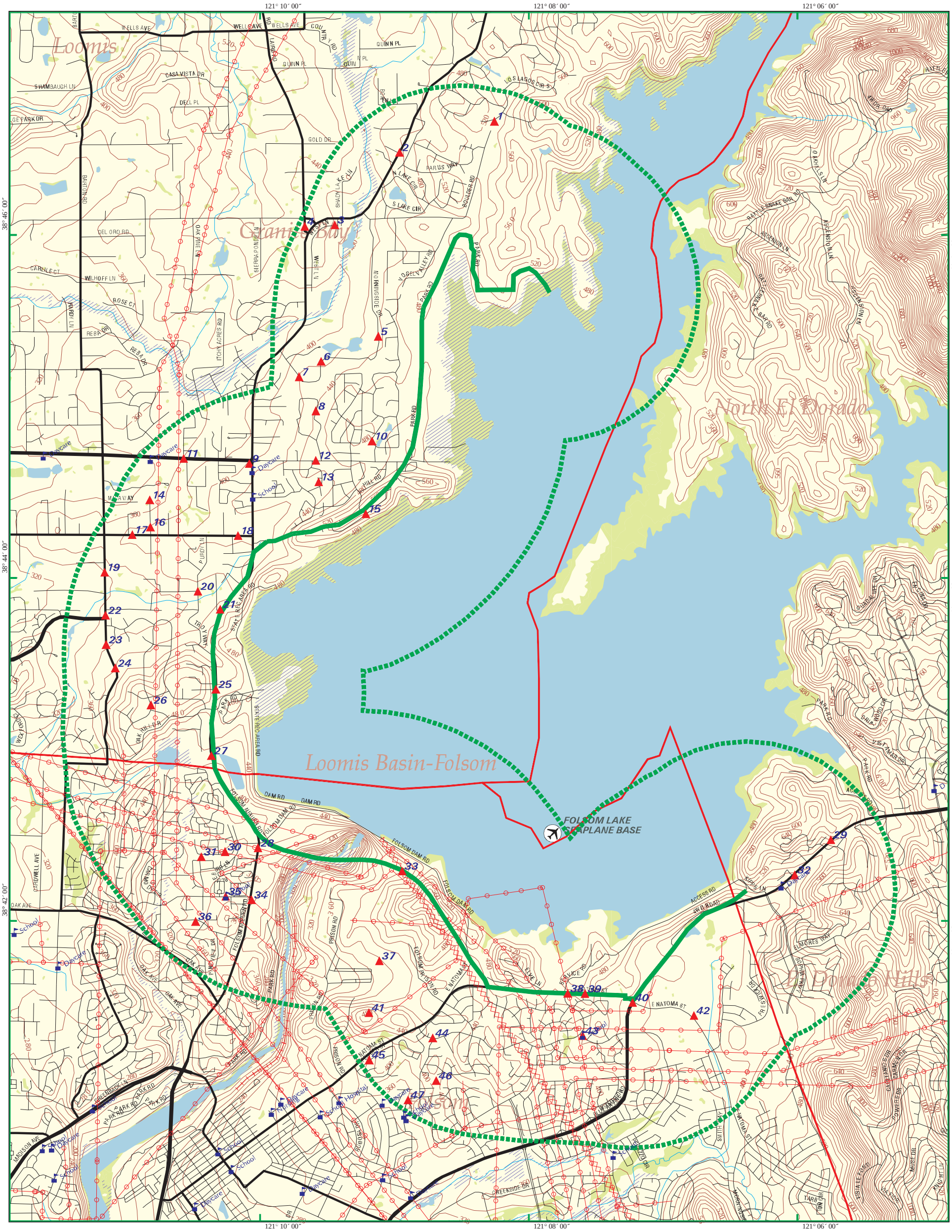

EDR DataMap™ –Corridor Study

Folsom Dam

EDR® Environmental Data Resources Inc



Folsom, CA

- Listed Sites
- Earthquake Epicenters (Richter 5 or greater)
- Search Boundary
- Roads
- Major Roads
- Waterways
- Railroads
- Contour Lines
- Pipelines
- Powerlines
- Fault Lines
- Water
- Superfund Sites
- Federal DOD Sites
- Indian Reservations BIA
- 100-Yr Flood Zones
- Wetlands

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Scale in Miles

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Appendix I
Cultural Resources Study

Pacific Legacy Incorporated

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MEMO

To: **John Wondolleck, CDM**

From: Kevin M. Bartoy

Date: 1/12/06

Re: Fatal Flaw Analysis of Folsom Dam Project

John,

As per your request, we have assembled all pertinent cultural resources information related to the areas currently under consideration by the USBR for the Folsom Dam Project. Our data includes: information from surveys performed by Pacific Legacy; information from surveys performed by URS; and, information from previous surveys and records provided to Pacific Legacy by the USBR.

A total of 86 cultural resources have been identified within the areas currently under consideration. To our knowledge, none of these resources have been evaluated for National Register of Historic Places eligibility. We have provided a list of each area of the project as discussed at our meeting on 1/10/06. Identified resources have been listed in tables for each area under consideration.

Please feel free to contact me if you have any questions.

Dike 1 Contractor Area
No cultural resources located during survey of area by Pacific Legacy. No previously recorded cultural resources.

Dikes 1, 2, and 3
No cultural resources located during survey of area by Pacific Legacy. No previously recorded cultural resources.

Beal / Granite Bay Borrow
The portion of this area located to the north of Mooney Ridge was previously surveyed by Far Western Anthropological Research Group in 1992 and was not resurveyed by URS upon consultation with Patrick Welch (USBR Archaeologist). The portion of this area located along and to the south of Mooney Ridge was surveyed by URS in 2005.

The Far Western survey resulted in the discovery of 24 cultural resources. These resources are listed in Table 1. The URS survey resulted in the discovery three new sites, two new isolates, and the re-recording or re-visiting of four previously known sites. These resources are listed in Table 2. An additional four sites were also noted by Pacific Legacy during our analysis of the records search. These sites were not noted during survey by URS and were not field checked.

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These resources are listed in Table 3 and are located in the area south of Mooney Ridge.

Table 1. Sites previously recorded by Far Western (1992)

Trinomial / Temporary No.	Description	Date Recorded	Elevation (ft)	Management Recommendation (Far Western 1992)
CA-PLA-158/255	PREHISTORIC: Groundstone and Lithics (Potential Subsurface)	1975	435-460	Auger and test excavations
CA-PLA-248	PREHISTORIC: Groundstone and Lithics (Potential Subsurface)	1977	420	Surface collect, record, analyze, and auger to test midden potential
CA-PLA-254	PREHISTORIC: Groundstone and Lithics (Potential Subsurface)	1977	380	Auger and test excavations
CA-PLA-746	PREHISTORIC: Lithics	1992	410	Apply Sparse Lithic Scatter Data Acquisition Program (Jackson et al. 1988)
CA-PLA-747	PREHISTORIC: Groundstone and Lithics	1992	410	Surface collect, record, analyze, and auger to test midden potential
CA-PLA-748	PREHISTORIC: Lithics	1992	400	Apply Sparse Lithic Scatter Data Acquisition Program (Jackson et al. 1988)
CA-PLA-749/H	PREHISTORIC AND HISTORIC: Lithics and Historic Debris	1992	420	Surface collect, record, analyze, and auger to test midden potential
CA-PLA-750H	HISTORIC: Historic Debris	1992	410	Data potential exhausted by recordation
CA-PLA-751	PREHISTORIC: Lithics	1992	425	Surface collect, record, analyze, and auger to test midden potential
CA-PLA-752	PREHISTORIC: Lithics	1992	420	Apply Sparse Lithic Scatter Data Acquisition Program (Jackson et al. 1988)
CA-PLA-753	PREHISTORIC: Lithics	1992	415	Apply Sparse Lithic Scatter Data Acquisition Program (Jackson et al. 1988)
CA-PLA-754	PREHISTORIC: Groundstone and Lithics	1992	405	Surface collect, record, analyze, and auger to test midden potential
CA-PLA-755	PREHISTORIC: Lithics	1992	418	Apply Sparse Lithic Scatter Data Acquisition Program (Jackson et al. 1988)
CA-PLA-756	PREHISTORIC: Lithics	1992	420	Apply Sparse Lithic Scatter Data Acquisition Program (Jackson et al. 1988)
CA-PLA-759	PREHISTORIC: Groundstone and Lithics (Potential Subsurface)	1992	440	Surface collect, record, analyze, and auger to test midden potential
CA-PLA-760	PREHISTORIC: Lithics (Potential Subsurface)	1992	405	Apply Sparse Lithic Scatter Data Acquisition Program (Jackson et al. 1988)
CA-PLA-761	PREHISTORIC: Groundstone and Lithics	1992	395	Surface collect, record, analyze, and auger to test midden potential
CA-PLA-762	PREHISTORIC: Groundstone and Lithics	1992	425	Surface collect, record, analyze, and auger to test midden potential
CA-PLA-763	PREHISTORIC: Groundstone and Lithics	1992	440	Apply Sparse Lithic Scatter Data Acquisition Program (Jackson et al. 1988)
CA-PLA-764	PREHISTORIC: Groundstone and Lithics	1992	430	Surface collect, record, analyze, and auger to test midden potential
CA-PLA-765	PREHISTORIC: Groundstone and Lithics	1992	425	Surface collect, record, analyze, and auger to test midden potential
CA-PLA-768	PREHISTORIC: Groundstone and Lithics	1992	405	Surface collect, record, analyze, and auger to test midden potential
CA-PLA-769/H	HISTORIC: Historic Debris	1992	480	Auger and test excavations
FD-23/90-1	PREHISTORIC: Groundstone and Lithics	1991	440	Surface collect, record, analyze, and auger to test midden potential

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Table 2. Sites recorded and re-visited by URS (2005)

Trinomial / Temporary No.	Description	Date Recorded	Elevation (ft)	Management Recommendation
CA-PLA-243	PREHISTORIC: Groundstone and Lithics (Potential Subsurface)	1977	424	Not relocated during survey
CA-PLA-244	PREHISTORIC: Groundstone and Lithics	1977	426	None provided
CA-PLA-247H	HISTORIC: Historic Structure and Historic Debris	Unknown	390	Not relocated during survey
CA-PLA-520H	HISTORIC: Large Earthen Ditch	1992	460	Not relocated during survey
Site M-1	PREHISTORIC: Bedrock Mortars and Lithics	2005	420	None provided
Site M-2	PREHISTORIC: Groundstone and Lithics	2005	420	None provided
Site M-3	PREHISTORIC: Groundstone and Lithics	2005	420	None provided
Isolate I-18	PREHISTORIC: Groundstone Fragment	2005	435	None provided
Isolate I-19	PREHISTORIC: Portable Anvil Stone	2005	460	None provided

Table 3. Sites previously recorded and not field checked by URS (2005)

Trinomial / Temporary No.	Description	Date Recorded	Elevation (ft)	Management Recommendation
CA-PLA-246	PREHISTORIC: Groundstone and Lithics (Potential Subsurface)	1977	390	None provided
CA-PLA-249	PREHISTORIC: Groundstone and Lithics (Potential Subsurface)	1977	415	None provided
CA-PLA-250H	HISTORIC: Concrete Structure near Flume	Unknown	400	None provided
CA-PLA-251H	HISTORIC: Historic Dump	Unknown	400	None provided

Dike 4 Contractor

No cultural resources located during survey of area by Pacific Legacy. No previously recorded cultural resources.

Dike 4

No cultural resources located during survey of area by Pacific Legacy. No previously recorded cultural resources.

Dike 5 Contractor 1

Two cultural resources were located during survey of area by Pacific Legacy. These resources are listed in Table 4.

Table 4. Sites recorded by Pacific Legacy (2006)

Trinomial / Temporary No.	Description	Date Recorded	Elevation (ft)	Management Recommendation
PL-FDEIS-2	HISTORIC: Concrete-lined rectangular pit with no associated artifacts or features	2006	400	Flag and avoid. Document and evaluate through historical research and test excavation.

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Trinomial / Temporary No.	Description	Date Recorded	Elevation (ft)	Management Recommendation
PL-FDEIS-3	HISTORIC: Water conveyance system consisting of earthen ditch, concrete intake, and six concrete supports for an approximately 24-inch pipe, which no longer is extant	2006	400	Flag and avoid. Document and evaluate through historical research.

Dike 5

No cultural resources located during survey of area by Pacific Legacy. No previously recorded cultural resources.

Dike 5 Contractor 2

No cultural resources located during survey of area by Pacific Legacy. No previously recorded cultural resources.

Beal / Dam Borrow

The portion of this area located to the south and east of Beals Point was previously surveyed by Far Western Anthropological Research Group in 1993 and was not resurveyed by URS upon consultation with Patrick Welch (USBR Archaeologist). The portion of this area located along Beals Point and to the north and west was surveyed by URS in 2005.

The Far Western survey resulted in the discovery of 10 cultural resources within the current project area and the re-recording of two previously known cultural resources. These resources are listed in Table 5. The URS survey resulted in the discovery of two new isolates. These resources are listed in Table 6. An additional seven previously recorded sites were also noted by Pacific Legacy during our analysis of the records search. These sites were not noted during survey by either Far Western or URS and were not field checked. The documents provided to Pacific Legacy by USBR did not include site records for six of these resources. These resources are listed in Table 7.

Table 5. Sites previously recorded by Far Western (1993)

Trinomial / Temporary No.	Description	Date Recorded	Elevation (ft)	Management Recommendation (Far Western 1992)
CA-PLA-253H	HISTORIC: Historic Structure	1993	380	Historical research, surface collection, and subsurface testing
CA-PLA-520H	HISTORIC: Large Earthen Ditch	1992	460	None provided
FD-3(I)	PREHISTORIC: Shale Stemmed Projectile Point Basal Fragment	1993	410	None provided
FD-47	PREHISTORIC: Groundstone and Lithics (Potential Subsurface)	1993	422	Auger and test excavations
FD-48	PREHISTORIC: Groundstone and Lithics (Potential Subsurface)	1993	429	Auger and test excavations
FD-50/H	PREHISTORIC AND HISTORIC: Groundstone and Lithics (Potential Subsurface) and Historic Debris	1993	405	Auger and test excavations

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Trinomial / Temporary No.	Description	Date Recorded	Elevation (ft)	Management Recommendation (Far Western 1992)
FD-52	PREHISTORIC: Lithics (Potential Subsurface)	1993	410	Auger to test for subsurface deposit and, if none, apply Sparse Lithic Scatter Data Acquisition Program (Jackson et al. 1988)
FD-55	PREHISTORIC: Groundstone and Lithics (Potential Subsurface)	1993	370	Auger and test excavations
FD-56/H	PREHISTORIC AND HISTORIC: Lithics (Potential Subsurface) and Historic Debris	1993	390	Auger to test for subsurface deposit and, if none, apply Sparse Lithic Scatter Data Acquisition Program (Jackson et al. 1988)
FD-57	PREHISTORIC: Groundstone and Lithics (Potential Subsurface)	1993	410	Auger and test excavations
FD-58	PREHISTORIC: Lithics (Potential Subsurface)	1993	412	Apply Sparse Lithic Scatter Data Acquisition Program (Jackson et al. 1988)
FD-59	PREHISTORIC: Groundstone and Lithics (Potential Subsurface)	1993	410	Auger and test excavations

Table 6. Sites recorded by URS (2005)

Trinomial / Temporary No.	Description	Date Recorded	Elevation (ft)	Management Recommendation
Isolate I-17	HISTORIC: Fourteen-inch-diameter Ferrous Pipe	2005	425	None provided
Isolate I-20	PREHISTORIC: Basalt Biface	1977	425	None provided

Table 7. Sites previously recorded and not field checked

Trinomial / Temporary No.	Description	Date Recorded	Elevation (ft)	Management Recommendation
CA-PLA-435	PREHISTORIC: Groundstone and Lithics (Potential Subsurface)	1987	400-410	None provided
CA-PLA-947	Uknown	Uknown	400	None provided
CA-PLA-948	Uknown	Uknown	420	None provided
CA-PLA-949	Uknown	Uknown	420	None provided
CA-PLA-950	Uknown	Uknown	400	None provided
CA-PLA-955	Uknown	Uknown	400	None provided
CA-PLA-959	Uknown	Uknown	420	None provided

Dike 6

No cultural resources located during survey of area by Pacific Legacy. No previously recorded cultural resources.

Dike 6 Contractor

No cultural resources located during survey of area by Pacific Legacy. No previously recorded cultural resources.

Right Wing Dam Haul

This area is covered under the discussion of Beal / Dam Borrow.

Right Wing Dam

No cultural resources located during survey of area by Pacific Legacy. Two previously recorded

cultural resources were noted in the records search and were not relocated during Pacific Legacy's survey. The resources are listed in Table 8.

Table 8. Sites previously recorded and field checked by Pacific Legacy (2006)

Trinomial / Temporary No.	Description	Date Recorded	Elevation (ft)	Management Recommendation
CA-SAC-412	HISTORIC: Right-of-way of the Sacramento, Placer, and Nevada Railroad	1986	330	Resource recorded approximately one mile to southwest of project area and does not exist in projected location within project area
P-31-60	HISTORIC: One dressed stone noted in fill of American River Bike Path	1987	430	Data potential exhausted by recordation

Right Wing Dam Contractor
No cultural resources located during survey of area by Pacific Legacy. No previously recorded cultural resources.

Below Left Wing Dam
No cultural resources located during survey of area by Army Corps of Engineers. With consultation from Patrick Welch (USBR Archaeologist), Pacific Legacy did not survey area since it had previously been completely surveyed and noted that the area was greatly disturbed from dam construction. No previously recorded cultural resources.

Left Wing Dam Haul
This area is covered under the discussion of Dike 8 / MIAD Borrow.

Dike 7
No cultural resources located during survey of area by Pacific Legacy. No previously recorded cultural resources.

Dike 7 Contractor
No cultural resources located during survey of area by Pacific Legacy. No previously recorded cultural resources.

Dike 8
No cultural resources located during survey of area by Pacific Legacy. No previously recorded cultural resources.

Dike 8 / MIAD Borrow
This area was surveyed by URS in 2005. The URS survey resulted in the discovery of seven new isolates. These resources are listed in Table 9.

Table 9. Sites recorded by URS (2005)

Trinomial / Temporary No.	Description	Date Recorded	Elevation (ft)	Management Recommendation
Isolate I-6	HISTORIC: Concrete Barrier Post	2005	450	None provided
Isolate I-7	HISTORIC: Iron Ferry Platform at end of Dike 8	2005	470	None provided

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Trinomial / Temporary No.	Description	Date Recorded	Elevation (ft)	Management Recommendation
Isolate I-8	HISTORIC: Concrete Blocks at north end of Dike 8	2005	470	None provided
Isolate I-9	PREHISTORIC: Basalt Core	2005	450	None provided
Isolate I-21	PREHISTORIC: Basalt Flake and Quartzite Hammerstone	2005	450	None provided
Isolate I-22	PREHISTORIC: Obsidian Biface	2005	440	None provided
Isolate I-23	PREHISTORIC: Quartzite Flake	2005	440	None provided

MIAD Borrow 2 (AKA D2)

One cultural resource was located during survey of area by Pacific Legacy. This resource is listed in Table 10.

Table 10. Site recorded by Pacific Legacy (2006)

Trinomial / Temporary No.	Description	Date Recorded	Elevation (ft)	Management Recommendation
PL-FDEIS-1	HISTORIC: Small Prospect Pit (3 m by 3 m) with no associated artifacts or features	2006	500	Flag and avoid. Document and evaluate through historical research and test excavation.

MIAD Borrow 1 (AKA D1)

No cultural resources located during survey of area by Pacific Legacy. No previously recorded cultural resources.

MIAD

No cultural resources located during survey of area by Pacific Legacy. No previously recorded cultural resources.

Brown's Ravine Borrow

This area was surveyed by URS in 2005. The URS survey resulted in the discovery of ten new isolates and the re-recording of one previously known site. These resources are listed in Table 11. An additional five previously recorded sites were also noted by Pacific Legacy during our analysis of the records search. These sites were not noted during survey by URS and were not field checked. The documents provided to Pacific Legacy by USBR did not include site records for six of these resources. These resources are listed in Table 12.

Table 11. Sites recorded by URS (2005)

Trinomial / Temporary No.	Description	Date Recorded	Elevation (ft)	Management Recommendation
Site FDSOD-3	PREHISTORIC: Bedrock Mortars, Groundstone, and Lithic Scatter	2004	443	None provided
Isolate I-1	HISTORIC: Red Brick Fragment	2005	400	None provided
Isolate I-2	HISTORIC: Two-inch-diameter Iron Pipe Fragment and White Ceramic	2005	400	None provided

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Trinomial / Temporary No.	Description	Date Recorded	Elevation (ft)	Management Recommendation
Isolate I-3	HISTORIC: Wooden Platform, Iron Braces, and Willows	2005	400	None provided
Isolate I-4	HISTORIC: Two-inch-diameter Iron Pipe	2005	430	None provided
Isolate I-11	HISTORIC: Beer Can	2005	450	None provided
Isolate I-12	HISTORIC: Ovate Schist Rock Pile and Red Brick Fragments	2005	450	None provided
Isolate I-13	HISTORIC: Red Brick Fragment	2005	450	None provided
Isolate I-14	HISTORIC: Corrugated Metal Pipe	2005	430	None provided
Isolate I-16	HISTORIC: One-half-inch-diameter Iron Pipe	2005	450	None provided
Isolate I-17	HISTORIC: Fourteen-inch-diameter Ferrous Pipe	2005	450	None provided

Table 12. Sites previously recorded and not field checked

Trinomial / Temporary No.	Description	Date Recorded	Elevation (ft)	Management Recommendation
CA-ELD-261	PREHISTORIC: Groundstone and Lithics (Potential Subsurface)	1977	430-435	None provided
Site FDSOD-1	HISTORIC: Historic Foundation, Trash Pit, and Historic Debris	2004	405	None provided
Site FDSOD-2	HISTORIC: Historic Foundation, Footings, Orchard, and Historic Debris	2004	410	None provided
Site FDSOD-4	PREHISTORIC: Groundstone and Lithics	2004	422	None provided
Site FDSOD-5	PREHISTORIC: Groundstone and Lithics	2004	422	None provided

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MEMO

To: **John Wondolleck, CDM**

From: Kevin M. Bartoy

Date: 3/27/06

Re: Fatal Flaw Analysis of Mississippi Bar and East Lake Natoma Borrow Sites

John,

As per your request, we have assembled all pertinent cultural resources information related to the two borrow areas known as Mississippi Bar and East Lake Natoma. Our data includes information from previous surveys and records provided to Pacific Legacy by the USBR as well as information from previous surveys and records provided to Pacific Legacy from California State Parks, who currently administer the locations of Mississippi Bar and East Lake Natoma.

It appears that previous surveys have led to complete coverage of the areas under consideration. A total of six cultural resources have been identified within the areas currently under consideration. To our knowledge, only one of these resources has been evaluated for National Register of Historic Places (NRHP) eligibility. This resource, CA-SAC-308H, was determined eligible for listing on the NRHP. For each area, we have provided a brief summary of the studies and identified resources.

Please feel free to contact me if you have any questions.

Mississippi Bar

This potential borrow area has been the subject of previous survey by two previous studies. These studies include EDAW 2003, and Motz and Johnson 1980. It appears that these studies have resulted in a complete coverage of the current APE.

These studies have resulted in the discovery of two cultural resources: CA-SAC-308H; and, LN12.

CA-SAC-308H is located in the southeastern portion of the current APE. CA-SAC-308H is also known as the Natoma Ground Sluice Diggings or the Natoma Diggings. The site is a compilation of three cultural resources recorded during separate projects. The North Central Information Center concluded that due to their proximity and historical relationship, the three resources should be designated as a single historic property comprised of three loci (A-1, B-1, and C-1). Locus A-1 consists of leveled dredge tailings, Locus B-1 consists of approximately 68 mining related features, and Locus C-1 consists primarily of tailings piles. CA-SAC-308H has been determined eligible to the National Register of Historic Places (NRHP). Since CA-SAC-308H has been previously determined eligible for the NRHP, the current project would pose an adverse effect to this resource.

LN12 was identified by EDAW (2003). The site consists of early sluice and dredge tailings that may date as early as the 1840s. The dredging activities continued in this location until the early 1960s. Additional rock crushing activities were also carried out in this location most likely in the 1950s. The site has not been subject to evaluation. The site would need to be evaluated for CRHR and NRHP eligibility as part of the current project.

East Lake Natoma

This potential borrow area has been the subject of previous survey by seven previous studies. These studies include: EDAW 2003; JRP and Far Western 1999; Motz and Johnson 1980; PAR 1999; and, Peak and Associates 1978, 1990, 1998. It appears that these studies have resulted in a complete coverage of the current APE.

The studies resulted in the discovery of five cultural resources. These resources include: CA-SAC-308H; LN1; LN3; IA2; and, IF1.

CA-SAC-308H is also known as the Natoma Ground Sluice Diggings or the Natoma Diggings. The site is a compilation of three cultural resources recorded during separate projects. The North Central Information Center concluded that due to their proximity and historical relationship, the three resources should be designated as a single historic property comprised of three loci (A-1, B-1, and C-1). Locus A-1 consists of leveled dredge tailings, Locus B-1 consists of approximately 68 mining related features, and Locus C-1 consists primarily of tailings piles. CA-SAC-308H has been determined eligible to the National Register of Historic Places (NRHP).

With the exception of a small portion of the APE to the southeast, CA-SAC-308H extends throughout the East Lake Natoma Borrow Area. Since CA-SAC-308H has been previously determined eligible for the NRHP, the current project would pose an adverse effect to this resource.

LN1 was identified by EDAW (2003). The site consists of an olive and fig orchard with an associated ditch and stand of eucalyptus trees. The trees were planted by the Natoma Company in the early twentieth century in an effort to prove that dredge property could be reclaimed. The site has not been subject to evaluation. The site would need to be evaluated for CRHR and NRHP eligibility as part of the current project.

LN3 was identified by EDAW (2003). The site consists of a large cleared area with dredge tailings, historic artifact scatters, and concrete foundations. The site is most likely associated with rock crushing activities from the early 1950s. The site has not been subject to evaluation. The site would need to be evaluated for CRHR and NRHP eligibility as part of the current project.

IA2 was identified by EDAW (2003). This isolated artifact is aprehistoric pestle/mano fragment.

IF1 was identified by EDAW (2003). This isolated feature consists of a concrete and rock foundation.

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MEMO

To: **John Wondolleck, CDM; Shawn Oliver, Bureau of Reclamation**

From: Kevin M. Bartoy

Date: 4/3/06

Re: Fatal Flaw Analysis of Mississippi Bar and East Lake Natoma Borrow Sites

John,

As per your request, we have assembled all pertinent cultural resources information related to the two borrow areas known as Mississippi Bar and East Lake Natoma. Our data includes information from previous surveys and records provided to Pacific Legacy by the USBR as well as information from previous surveys and records provided to Pacific Legacy from California State Parks, who currently administer the locations of Mississippi Bar and East Lake Natoma.

It appears that previous surveys have led to complete coverage of the areas under consideration. A total of six cultural resources have been identified within the areas currently under consideration. To our knowledge, only one of these resources has been evaluated for National Register of Historic Places (NRHP) eligibility. This resource, CA-SAC-308H, was determined eligible for listing on the NRHP. However, it is quite likely that the resource known as LN12 would also be determined eligible. For each area, we have provided a brief summary of the studies and identified resources.

For Mississippi Bar and East Lake Natoma to continue to be considered as borrow areas, the following cultural resources would have to be fully recorded and evaluated for eligibility to the NRHP: LN1 (historic orchard), LN3 (rock crushing site), and LN12 (sluice and dredge tailings). Additionally, the relationship of IF1 (possible rock crushing site) to CA-SAC-308H would have to be determined. It is possible that IF1 could be a contributing element to CA-SAC-308H. We anticipate that this research, fieldwork, and reporting would take two to three months to complete.

In addition to CA-SAC-308H being previously determined eligible to the NRHP, it is our opinion that LN12 would most likely be determined eligible as well. Given their status as historical resources, the current project would have an adverse effect on these resources and would require mitigation to reduce the impacts to a less than significant level. A mitigation plan would have to be developed and agreed upon in consultation with the Office of Historic Preservation and the State Historic Preservation Officer (SHPO). Project activities could not commence at Mississippi Bar and East Lake Natoma until an agreement on the mitigation plan was reached and the mitigation was completed. We anticipate that this process would take upwards of one year.

We estimate that the work required to meet Section 106 compliance for the borrow areas of

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Mississippi Bar and East Lake Natoma would be approximately 14 to 15 months. We have not included a cost estimate in this memo, but we could prepare one at your request. Please feel free to contact me if you have any questions.

Mississippi Bar

This potential borrow area has been the subject of previous survey by two previous studies. These studies include EDAW 2003, and Motz and Johnson 1980. It appears that these studies have resulted in a complete coverage of the current APE.

These studies have resulted in the discovery of two cultural resources: CA-SAC-308H; and, LN12. These two resources encompass the entire potential borrow area at Mississippi Bar.

CA-SAC-308H is located in the southeastern portion of the current APE. CA-SAC-308H is also known as the Natoma Ground Sluice Diggings or the Natoma Diggings. The site is a compilation of three cultural resources recorded during separate projects. The North Central Information Center concluded that due to their proximity and historical relationship, the three resources should be designated as a single historic property comprised of three loci (A-1, B-1, and C-1). Locus A-1 consists of leveled dredge tailings, Locus B-1 consists of approximately 68 mining related features, and Locus C-1 consists primarily of tailings piles. CA-SAC-308H has been determined eligible to the National Register of Historic Places (NRHP). Since CA-SAC-308H has been previously determined eligible for the NRHP, the current project would pose an adverse effect to this resource.

LN12 was identified by EDAW (2003). The site consists of early sluice and dredge tailings that may date as early as the 1840s. The dredging activities continued in this location until the early 1960s. Additional rock crushing activities were also carried out in this location most likely in the 1950s. The site has not been subject to evaluation. The site would need to be evaluated for CRHR and NRHP eligibility as part of the current project. Based on its similarity to CA-SAC-308H, LN12 would most likely also be determined eligible for the NRHP.

East Lake Natoma

This potential borrow area has been the subject of previous survey by seven previous studies. These studies include: EDAW 2003; JRP and Far Western 1999; Motz and Johnson 1980; PAR 1999; and, Peak and Associates 1978, 1990, 1998. It appears that these studies have resulted in a complete coverage of the current APE.

The studies resulted in the discovery of five cultural resources. These resources include: CA-SAC-308H; LN1; LN3; IA2; and, IF1. These resources encompass the entire potential borrow area at East Lake Natoma.

CA-SAC-308H is also known as the Natoma Ground Sluice Diggings or the Natoma Diggings. The site is a compilation of three cultural resources recorded during separate projects. The North Central Information Center concluded that due to their proximity and historical relationship, the three resources should be designated as a single historic property comprised of three loci (A-1, B-1, and C-1). Locus A-1 consists of leveled dredge tailings, Locus B-1 consists of approximately 68 mining related features, and Locus C-1 consists primarily of tailings piles.

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CA-SAC-308H has been determined eligible to the National Register of Historic Places (NRHP).

With the exception of a small portion of the APE to the southeast, CA-SAC-308H extends throughout the East Lake Natoma Borrow Area. Since CA-SAC-308H has been previously determined eligible for the NRHP, the current project would pose an adverse effect to this resource.

LN1 was identified by EDAW (2003). The site consists of an olive and fig orchard with an associated ditch and stand of eucalyptus trees. The trees were planted by the Natoma Company in the early twentieth century in an effort to prove that dredge property could be reclaimed. The site has not been subject to evaluation. The site would need to be evaluated for CRHR and NRHP eligibility as part of the current project.

LN3 was identified by EDAW (2003). The site consists of a large cleared area with dredge tailings, historic artifact scatters, and concrete foundations. The site is most likely associated with rock crushing activities from the early 1950s. The site has not been subject to evaluation. The site would need to be evaluated for CRHR and NRHP eligibility as part of the current project.

IA2 was identified by EDAW (2003). This isolated artifact is a prehistoric pestle/mano fragment.

IF1 was identified by EDAW (2003). This isolated feature consists of a concrete and rock foundation.

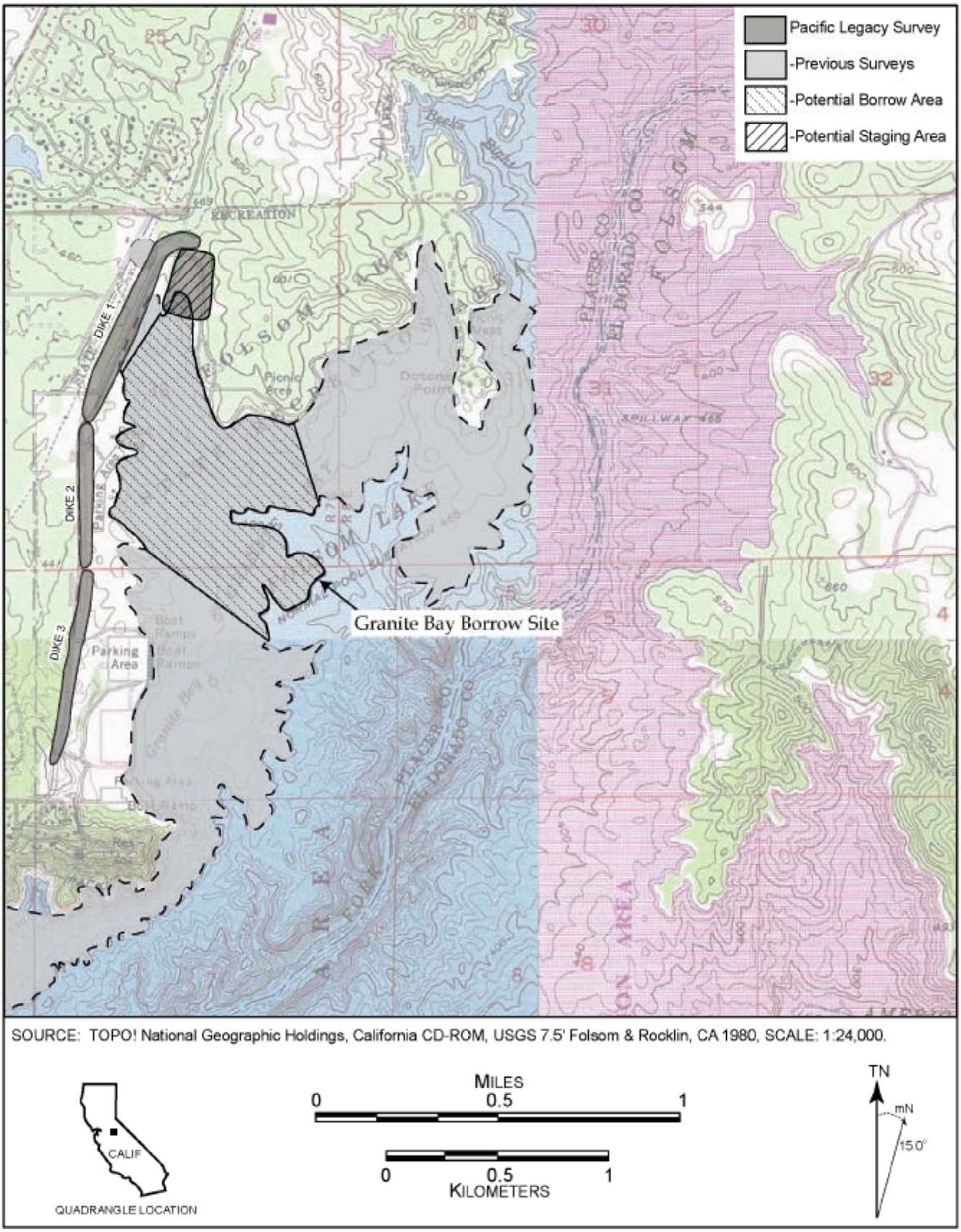

Figure 1. Archaeological Survey Areas and the Proposed Granite Bay Borrow Areas.

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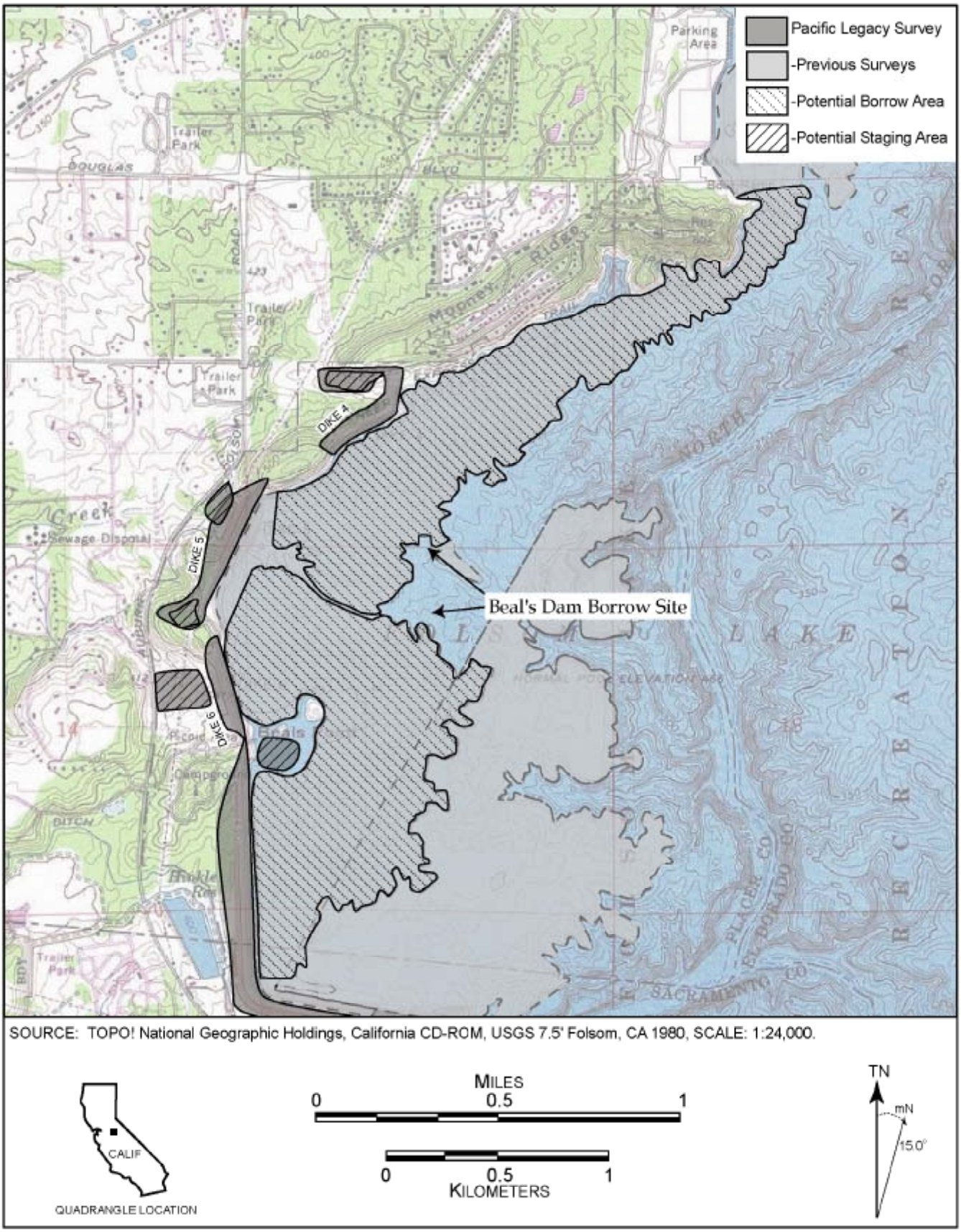

Figure 2. Archaeological Survey Areas and the Proposed Beals's Point Borrow Areas.

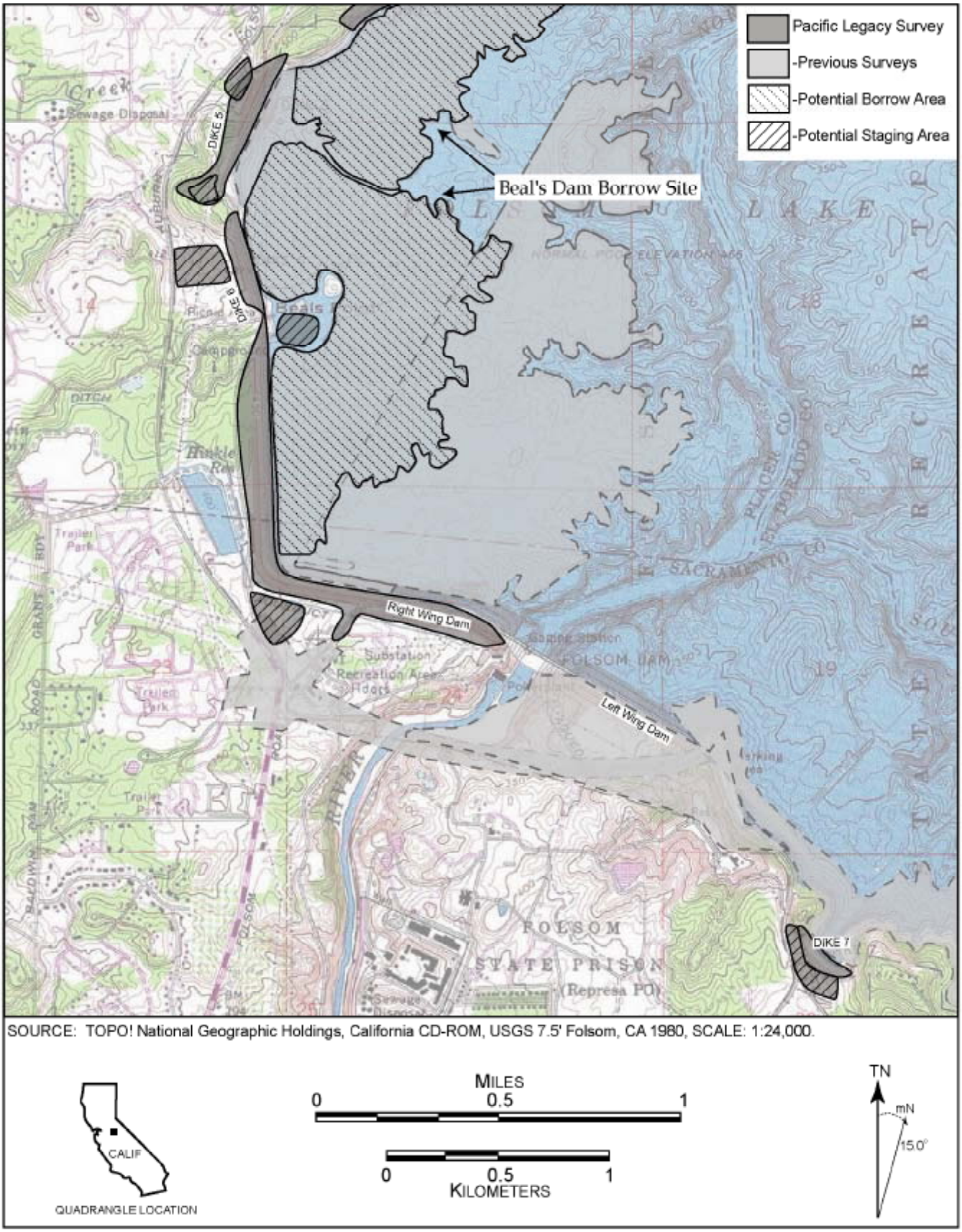

Figure 3. Archaeological Survey Areas and the Beals's Point and Left Wing Dam Areas.

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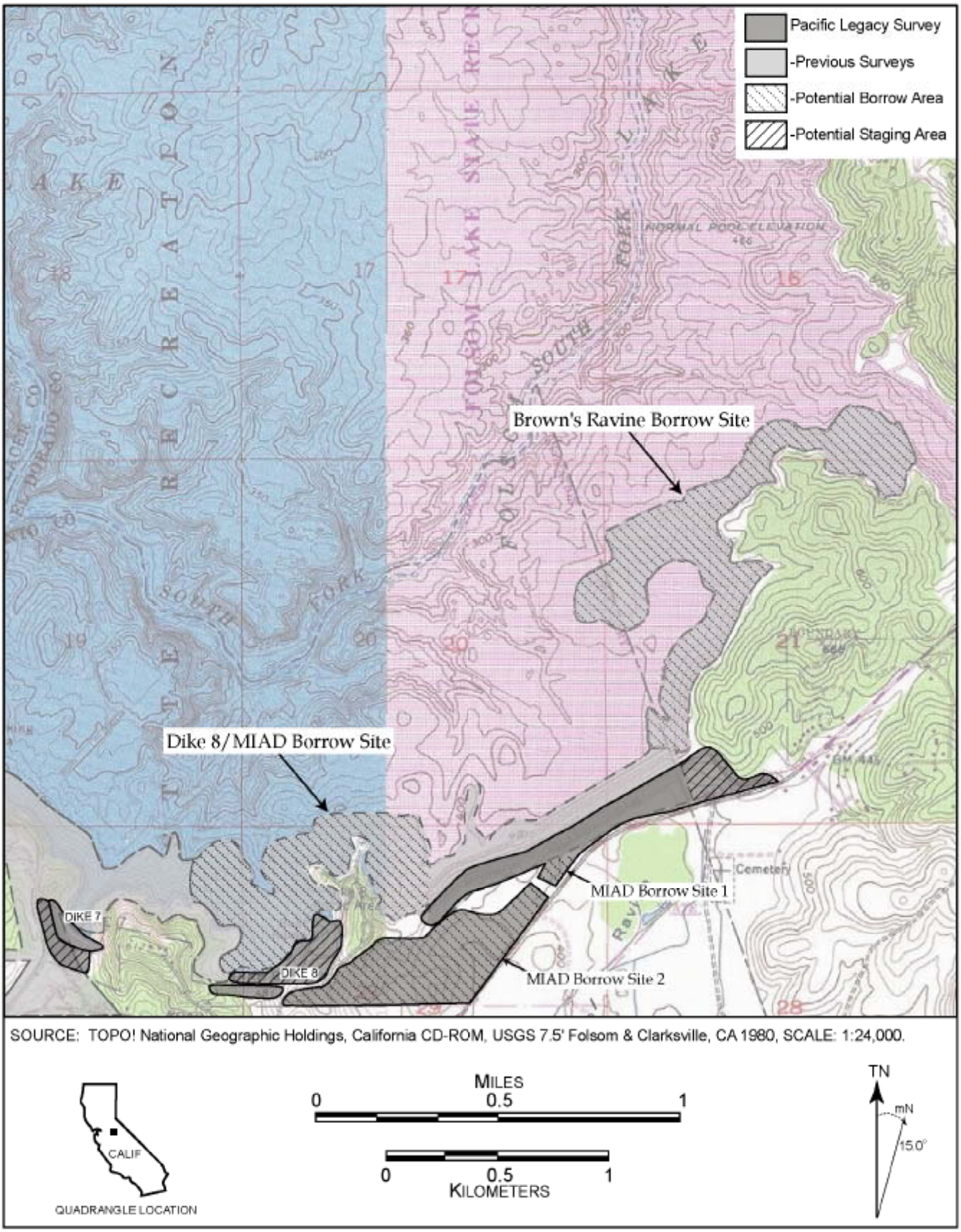

Figure 4. Archaeological Survey Areas and the Proposed MIAD and Brown's Ravine Borrow Areas.

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Appendix J
Trace Mercury and Total Metals

Joint Federal Project Auxiliary Spillway Folsom Lake
Sediment Characterization Trace Mercury and Total Metals

RECLAMATION

Managing Water in the West



Joint Federal Project
Auxiliary Spillway
Folsom Lake

SEDIMENT CHARACTERIZATION
Trace Mercury and Total Metals

U.S. Bureau of Reclamation, Mid-Pacific Region
Environmental Monitoring Branch, MP-157

Date: August 14, 2006

U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region

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Background

Folsom Reservoir is located approximately five miles east of Folsom, California on the American River. The Reservoir was completed in 1956 by the U.S. Army Corps of Engineers and transferred to the U.S. Bureau of Reclamation for coordinated operation as an integral part of the Central Valley Project. Folsom Dam provides flood control, power generation and water supply. Pursuant to Section 102(2) (C) of the National Environmental Policy Act of 1969 (NEPA), the Bureau of Reclamation (Reclamation) intends to prepare an EIS for the implementation of the safety modifications for Folsom Dam and Appurtenant Structures (Folsom Safety of Dams Project including the proposed auxiliary spillway). Reclamation seeks to improve public safety by modifying Folsom Facilities and its appurtenant structures to mitigate issues identified in previous and ongoing safety evaluations. Studies are being conducted by Reclamation to identify alternatives (modifications) to address these conditions. Engineering, Economic, and Environmental studies are being conducted to help determine reasonable design alternatives. Information gathered from the EIS process will be used in conjunction with engineering and economic principles to determine preferred alternatives.

The proposed auxiliary spillway is designed as a flood control alternative. Construction of an alternate spillway may lead to mobilization of sediment that would likely move downstream. These sediments may contain elemental mercury from historic mining operations, and metals from historic activities or geology in the American River drainage. The toxicity of mercury in the sediment to aquatic life and human health has been called into question. The purpose of this investigation is to determine whether these sediments are a hazard to aquatic life if allowed to flow downstream.

The area to be sampled for this project is within the confines of Folsom Lake and within the area of the lake that could be affected by various design concepts for the auxiliary spillway. The design in Figure 1 has an extent into the reservoir of approximately 600 feet. The sample plan extended this length to 2200 feet to encompass any additional plans such as Reclamations Fuse Plug design.

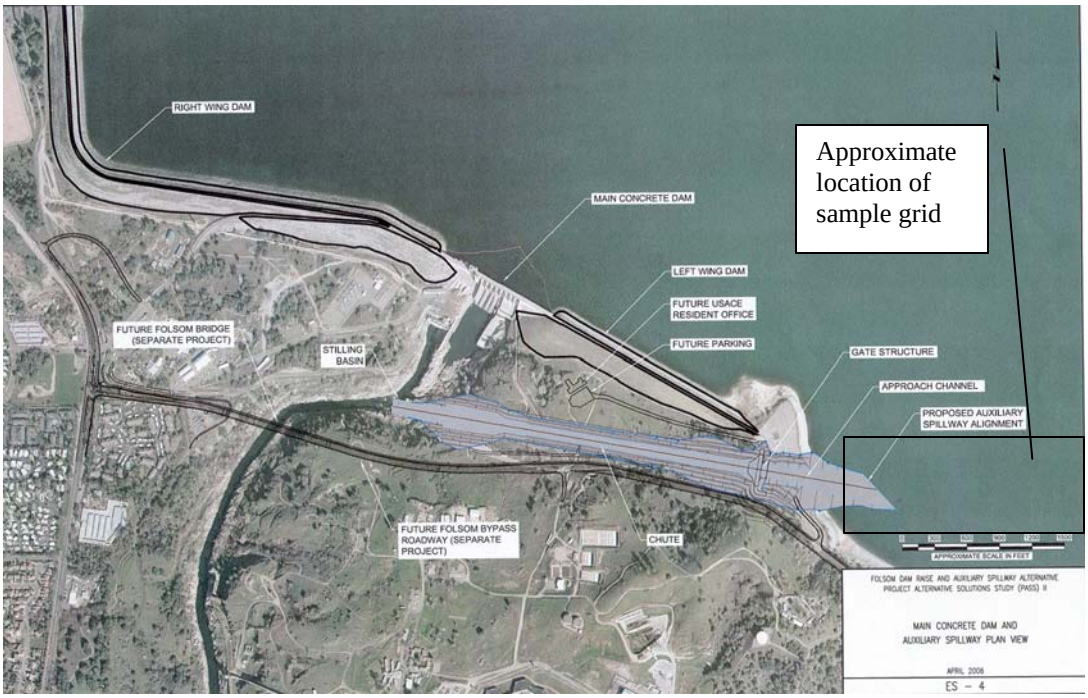

Figure 1: Site Location

Preliminary Site Assessment

A preliminary assessment was initiated to make visual observations on site conditions, record Global Position System (GPS) coordinates of the project area, and photograph the sampling area. The information collected from the initial assessment was used to design the sampling plan and detail the overall scope of work.

The purpose of this project is to determine the magnitude and spatial distribution of sedimentary metals contamination in the project work area. Based on this, the project area coordinates collected during the preliminary assessment were incorporated into a Geographic Information System (GIS) program that was able to generate 25 random sampling points within the project area. Preliminary sampling locations are shown in the Joint Federal Project Auxiliary Spillway Folsom Lake Quality Assurance Project Plan (QAPP) (Appendix A). Randomly assigning sampling points within the project area will provide a more representative sampling design that will more accurately display the distribution of sediment contamination. These points are spatially spread out over the project site from shallow to deep locations.

Site Characterization

Sampling Design and Methods

During sample collection, the individual site locations were identified using the sample grid within which 25 sites were randomly selected using available geospatial tools. Out of three randomizations proposed, one was selected as effective for this project. These sample sites were loaded into the GPS units to facilitate the location of sites in the field. Field collection of sites was further randomized due to wind, drift and wave activity.

GPS sample locations were downloaded and post processed to increase accuracy of site locations and plotted in appendix 4. The sample locations shown on this figure are a best attempt at showing the actual sample point. The GPS unit started collecting data when the sample device was first lowered and stopped when the sampler was retrieved. The sample locations shown are actually the midpoints of the line stored in the GPS.

The preferential sampling method was to utilize a gravity corer (Figure 2); this device was lowered into the bottom sediments where it trapped a vertical sediment profile in a thin-walled core barrel (clear polycarbonate). A positive check valve maintained a vacuum on the sample as it was recovered through the water column. Upon retrieval, the bottom of the core tube was capped (with core extruding plug or poly end cap) before breaking the air-water interface to prevent loss of sample.

When the sample was retrieved, a photo was taken of the intact core (Figure 3). Notes were recorded on the time of collection, depth of sample, field ID and length of core. The sample was then transferred to a certified clean plastic cubitaner for later processing.



Figure 2: Gravity Core

Sample Collection

Originally, twenty five sampling sites were identified; however, samples were only collected at eighteen of those sampling sites. At least three attempts were made to collect a sample. If the first attempt was not successful then another was attempted nearby. After the third attempt the site was abandoned or an attempt was made to collect the sample using a clam shell “Ponar”.

The Ponar was utilized only once at site 14 where a small bite of coarse grain decomposed granite was recovered. Due to the absence of sediment in this sample, the sample was discarded and the site abandoned (Figure 4).



Figure 3: Average sample collected in gravity corer tube



Figure 4: Coarse grain decomposed gravel - discarded sample (shown in cubitainer)

Sample Processing

Once the samples were collected they were transported on ice to Reclamation's lab facility for processing. Since the entire core and associated water column in the sampler were placed in the cubitainer, it was first necessary to decant the excess water prior to homogenization of the sample. This decanted water was saved for future use as wash water as described below. Samples were then homogenized in the sample cubitaner by mixing the material with a clean, plastic spatula.

Two sets of material were taken from each sample. The first set removed was for total metals. This material needed no further processing and was placed in a certified clean plastic sample bottle (500 ml wide mouth HDPE, pc class).

The second set removed was for the trace mercury sample. Due to the fine grain consistency of all the samples collected, it was not necessary to first sieve any large grain particles, as stated in the QAPP. After some trial and error using the sieve frame method stated in the QAPP, the method was modified.

Using the modified method, the 63 micron mesh was placed directly onto the sample container. Small amounts of sample material were placed onto the mesh and worked into the sample container using the rounded end of the spatula. The material was also rinsed with the decanted sample water in order to facilitate the movement of the material through the mesh. To ensure that the minimum weight of material was sieved for analysis, a clean sample bottle was filled with deionized water and the weight tarred for comparison to the filled sample bottle.

Site Characterization Results

The initial concern for this sampling effort was to determine if mercury levels in the sediment in the project area could become re-suspended during construction or operation. It was also determined to be beneficial to obtain additional metals results at the same time.

Of the 38 metals that were analyzed, only ten had criteria for sediment. These were: Antimony, Arsenic, Cadmium, Copper, Lead, Mercury, Nickel, Selenium, Silver, and Zinc. Other than the mercury standard discussed below, the results were first compared to goals in the Dredged Material Evaluation Framework[1]. If a goal for a particular metal was not found in this document, or if a more stringent one was available, the number came from California Regional Water Quality

[1] Dredged Material Evaluation Framework. Lower Columbia River Management Area, November 1998.

Control Boards – San Francisco Bay Region – Class 1 Disposal Option Sediment Screening Criteria. This reference was found in Compilation of Sediment and Soil Standards[2]. Criteria were also compared to the San Francisco Bay Regions Beneficial Reuse of Dredged Materials: Sediment Screening and Testing Guidelines[3] using the criteria for wetland foundation material concentrations. If no sediment standard was available, the soil standard from the California Department of Toxics Substance – Soil Criteria for TTLC was included.

The *Dredged Material Evaluation Framework (DMF)* was developed in November 1998 by the U.S. Army Corp of Engineers, U.S. Environmental Protection Agency, Washington Departments of Ecology and Natural Resources, and the Oregon Department of Environmental Quality. This manual was developed as a guidance document for dredging and aquatic disposal of that dredged material. Construction and operation of the Auxiliary Spillway could mimic dredging activities.

In Tier I of this tiered evaluation approach, the DMF first examines the history of the site by looking at upstream land use practices. If the information shows that none of the chemicals of concern were present in the watershed and none have been detected in the sediment, it supports a decision for unconfined aquatic disposal, and no additional tests are necessary.

Tier II is designed to provide a reliable screen to predict potential contaminate effects from discharge of the sediment, and it is comprised of two sub-tiers. Sub-tier IIA requires a physical examination of the sediment and Sub-tier IIB requires the sediment be tested for chemicals of concern.

The DMF screening levels used in appendix 2 come from the Tier IIB testing which are designed to assess the presence of chemicals of concern. These chemicals of concern generally have the following characteristics.

- A demonstrated or suspected adverse biological or human health effect.
- A relatively widespread distribution and high concentration when compared to natural or background conditions.

---

[2] Compilation of Sediment and Soil Standards. Criteria and Guidelines, State of California, Department of Water Resources, February 1995.

[3] Beneficial Reuse of Dredged Materials: Sediment Screening and Testing Guidelines, Draft Staff Report, San Francisco Bay Regional Water Quality Control Board, May 2000 (For Planning Purposes Only)

- A potential for remaining in a toxic form for long periods in the environment (persistent).

- A potential for entering the food web (bioavailability).

The screening level for mercury was obtained from the California Central Valley Regional Water Quality Control Board. This standard of 0.2 mg/kg is intended to define the fractional portion of the mercury that can easily be re-suspended and stay in suspension. It is for this reason that only the portion of the sample that passed through a 63 micron mesh was analyzed.

Of the 18 samples that were collected, only two reached the threshold of 0.2 mg/kg hg (site 2 and site 19). The mean of all sites was 0.16 mg/kg Hg (figure 5).

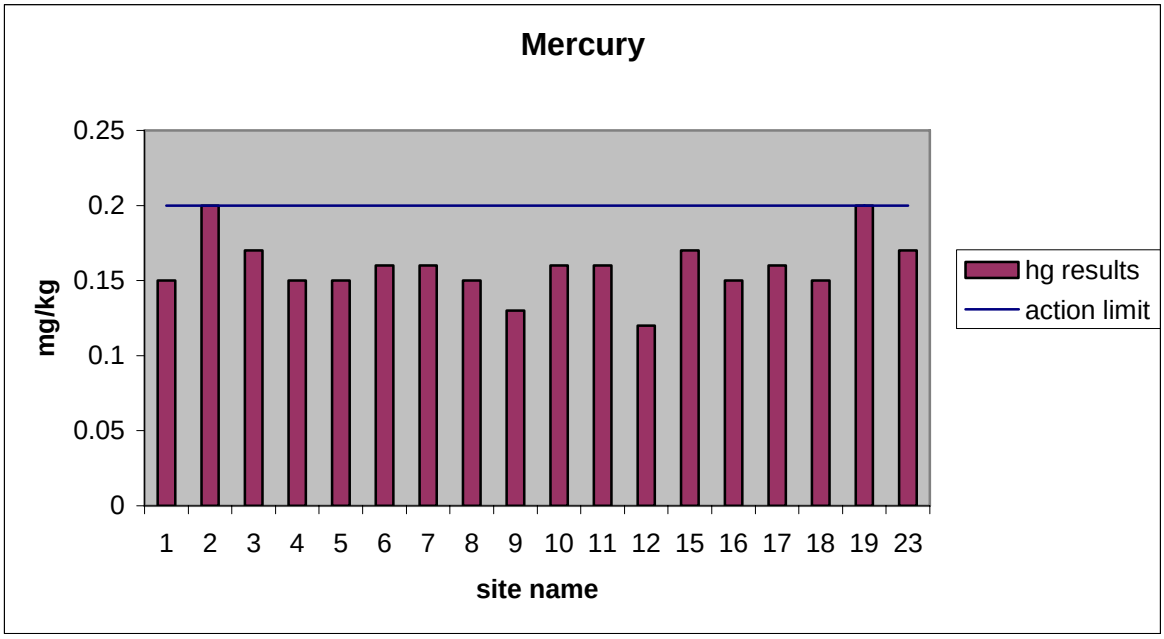

Figure 5: Mercury results

Of all the samples analyzed for metals, no results met or exceeded any of the sediment standards, and as a result would be suitable for unconfined aquatic disposal.

Quality Assurance

All field samples were collected by monitoring personnel in accordance with procedures listed in the QAPP (Appendix I sections VII-VIII). A specific summary of quality assurance for this project is incorporated in the report in Appendix 3.

To assess laboratory performance, Reclamation monitoring and/or QA personnel incorporated reference, duplicate and blank samples as blind samples. These samples were labeled similarly to the environmental samples and their true values were not revealed to the laboratory. QA samples were incorporated at the rates described in the QAPP (Appendix I section XI).

The laboratories incorporated internal QC check samples to ensure data reliability. For specific rates of QC check sample incorporation, refer to the laboratory QA manuals. Laboratory QC check sample results were reported as QC summary reports.

Data reports were received by Reclamation, the data was validated and the results were entered into a secure database as explained in the QAPP (Appendix I section XVII).

Precision

Reference duplicate samples provided precision information for the entire measurement system including sample acquisition, homogeneity, handling, shipping, storage, preparation, and analysis. Duplicate samples were analyzed by the laboratory for the same parameters as the primary samples.

Accuracy

Reference samples provided accuracy information for sample analysis. Reference samples were analyzed for the same parameters as the field samples.

Contamination

Blank samples provided contamination information for sample preparation and analysis. Blank samples were analyzed for the same parameters as the field samples.

Appendix 1

Quality Assurance Project Plan

RECLAMATION

Managing Water in the West



Joint Federal Project
Auxiliary Spillway
Folsom Lake

SEDIMENT CHARACTERIZATION
Trace Mercury and Total Metals

Quality Assurance Project Plan

U.S. Bureau of Reclamation, Mid-Pacific Region
Environmental Monitoring Branch, MP-157

Date: June 7, 2006

U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region

Integrated Federal Action
Auxiliary Spillway
Folsom Lake

SEDIMENT CHARACTERIZATION
Trace Mercury and Total Metals

Rev 1

Quality Assurance Project Plan

U.S. Bureau of Reclamation, Mid-Pacific Region
Environmental Monitoring Branch, MP-157

_____	_____
Environmental Monitoring Team Project Manager	Date
_____	_____
Quality Assurance Team Project Manager	Date
_____	_____
Data Management Team Project Manager	Date

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Project Management

I. Project/Task Organization

Personnel from the Environmental Monitoring Branch (MP157) will maintain and review this QAPP. Additionally, personnel from MP157 will collect the samples, incorporate external quality assurance samples, validate the analytical data, write a quality assurance summary report, enter data into the Environmental Monitoring Branch database, and write a data assessment. Individuals from MP157 responsible for these tasks are:

Stuart Angerer, 916-978-5046	Monitoring Coordinator
Melanie Lowe, 916-978-5238	Quality Assurance Specialist
John Fields, 916-978-5280	Site Manager
Satpal Kalsi, 916-978-5278	Database Manager

Laboratory analysis will be performed by DataChem Laboratories, Inc. (sediment samples)

Kevin Griffiths, 801-904-4302	Project Manager - DataChem

II. Problem Definition/Background

Folsom Reservoir is located approximately five miles east of Folsom, California on the American River. The Reservoir was completed in 1956 by the U.S. Army Corps of Engineers and transferred to the U.S. Bureau of Reclamation for coordinated operation as an integral part of the Central Valley Project. Folsom Dam provides flood control, power generation and water supply. Sediment in the project area that may be mobilized would likely move downstream with the construction of an alternate spillway. The toxicity of mercury in the sediment to aquatic life and human health has been called into question. The purpose of this investigation is to determine whether these sediments are a hazard to aquatic life if allowed to flow downstream.

Pursuant to Section 102(2) (C) of the National Environmental Policy Act of 1969 (NEPA), the Bureau of Reclamation (Reclamation) intends to prepare an EIS for the implementation of the safety modifications for Folsom Dam and Appurtenant Structures (Folsom Safety of Dams Project including the proposed auxiliary spillway). Reclamation seeks to improve public safety by modifying Folsom Facilities and its appurtenant structures (Folsom Facilities) to mitigate issues identified in previous and ongoing safety evaluations. Studies are being conducted by Reclamation to identify alternatives (modifications) to address these conditions. Engineering, Economic, and Environmental studies are being conducted to help determine reasonable design alternatives. Information gathered from the EIS process will be used in conjunction with engineering and economic principles to determine preferred alternatives.

III. Project/Task Description

Sediment associated with the project area in Folsom Reservoir may contain elemental mercury from historic mining operations and metals from historic activities or geology in the American River drainage. Bottom sediment will be collected from the reservoir in the area defined as the footprint of the proposed spillway site and the approach leading up to this footprint (figure 1). This sampling will be conducted during full pool operations necessitating collecting these samples through the water column.

Three different sampling methods may be employed to collect the samples. The preferential method will be to utilize a gravity corer. Secondarily a "Ponar" clam shell type sampler or a US BMH-60 bed-material sampler will be used. It is anticipated that the sediments in the higher elevation of the reservoir will be thinner and coarser than those found at depth. These thin, coarse samples may be difficult to retrieve with the gravity corer.

Full core lengths will be composited to create one sample from each location. Subsets of this composite will make up two samples, one for total metals and one for trace mercury. The total metals sample will be sent to the lab "as is" for drying and analysis. The trace mercury sample will be sieved through a 63 micron mesh and sent wet to the lab for drying and analysis.

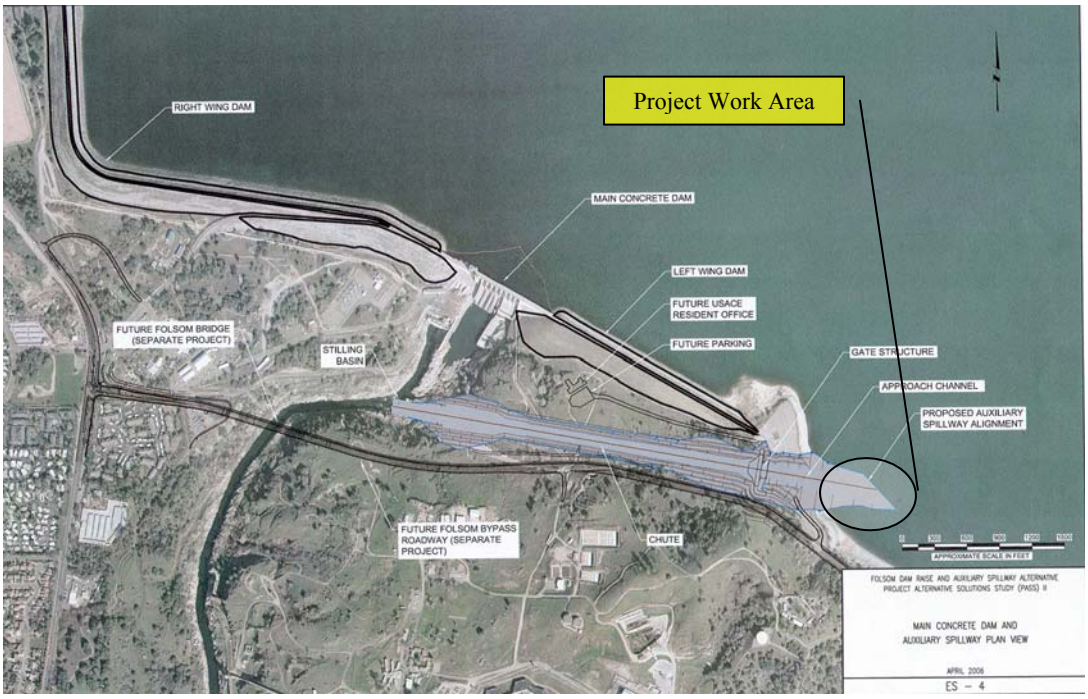


Figure 1: Site Location (approximate – several working plans)

IV. Quality Objectives and Criteria

Parameter	Reporting Limit	Action Limit	Accuracy	Precision	Contamination	Completeness
Mercury: EPA 7471	.0067 mg/kg	0.2 mg/kg dry weight	65 – 135%	< 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Metals: EPA 6020						
Aluminum	3 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Antimony	0.6 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Arsenic	0.4 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Barium	0.4 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Beryllium	0.2 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Boron	2 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Cadmium	0.2 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Cerium	0.2 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Cesium	0.2 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Chromium	0.2 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Cobalt	0.2 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Copper	0.4 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Gallium	0.2 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Gold	0.9 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Iron	9 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Lead	0.2 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Lithium	0.4 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Magnesium	3 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Manganese	0.2 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Molybdenum	0.2 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Nickel	0.4 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Palladium	0.3 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Platinum	0.2 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Potassium	4 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Selenium	0.9 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Silver	0.2 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Sodium	6 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Strontium	0.2 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Tellurium	0.3 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Thallium	0.2 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Tin	0.2 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Titanium	1 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Total Thorium	0.2 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Total Uranium	0.2 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Tungsten	0.3 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Vanadium	0.4 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%
Zinc	0.8 µg/g	n/a	65 – 135%	≤ 35% RPD or ±2RL (<5xRL)	< 2RL	100%

Representativness

To ensure samples are representative, they will be collected from 20-25 randomly generated points throughout the sampling footprint. Four samples will have collocated twins. Samples will be thoroughly homogenized before processing.

Comparability

To ensure data comparability, all samples are collected and homogenized following the same methods. It is possible that some samples may not be collected with the same sediment collecting device due to the unknown composition of the reservoir floor. Alternative sample collection equipment has been pre-selected and designated for collection. Additionally, the laboratory processes and analyzes all samples identically.

Method Sensitivity

The chosen analytical methods need to have detection limits at least three to five times below the action limit. This helps ensure the accuracy of results close to the action limit.

V. Special Training/Certifications

No special training is required,

VI. Documentation and Records

Sample Numbering System

All samples will be assigned unique identification numbers in the format of **FSS###**. (**F**olsom **S**ediment **S**ample **001**)

Sample Labels

All samples will be labeled with at least the following information:

- Identification number
- Date
- Analysis required

Field Logbook

A bound field notebook will be used to record at least the following information:

- Project name
- Site location
- Date
- Start Time
- End Time
- QA Type
- Method of Sampling
- Parameters Collected

- Project manager
- Sample identification number
- Name of visitors and other persons on site
- Sampler's Signature
- Conditions that may affect sample
- Any significant observations or events

The field notebook will be maintained by the Project Leader, who will sign and date the notebook prior to initiation of field work. Corrections to erroneous data will be made by crossing a line through the entry and entering the correct information. The correction will be initialed and dated by the person making the entry. Unused portions of logbook pages will be crossed out, signed, and dated at the end of each work day. Logbook entries must be dated, legible, in ink, and contain accurate documentation. Language used will be objective, factual, and free of personal opinions.

Field Log Sheets and Chain of Custody

The following information will be recorded on field log sheets and the chain of custody (COC):

- Project name
- Sample identification number
- Sampling location
- Type of sample media
- Laboratory analysis
- Date and/or time of sample preparation and collection
- Personnel who conducted sampling

Spike Book

The QA specialist is responsible for documenting the necessary information pertaining to the QA samples in the spike book. A spike book is a bound notebook that contains spike worksheets. Documentation on the spike worksheet includes the following information:

- Project name
- Number of samples
- Collection date
- Batch identification number
- Range of sample ID numbers assigned to the batch of samples
- Range of laboratory ID numbers assigned to the batch of samples
- Site name for the selected QA site
- Types of QA samples incorporated
- Field IDs that correspond to the QA samples
- Source ID for reference material used
- Historical background levels for parameters
- Reporting limits for parameters

- Dated initials of QA personnel incorporating the external QA samples

Analytical Report
The laboratory produces the analytical report which contains laboratory data results. The analytical report documents the analytical results for each parameter analyzed on each sample submitted. The analytical report generally includes the following information:

- Case narrative
- Analytical results
- Reporting limits (RL) for parameters
- Methods used to analyze the sample(s)
- Date sample(s) was/were collected, prepared, and analyzed
- Laboratory's quality control results

Data Generation and Acquisition

VII. Sampling Process Design

This sampling event is designed to determine the magnitude and spatial distribution of sedimentary metals contamination in the project work area.

Twenty five randomly generated sample points have been generated to assess the project site. These points are spatially spread out over the project site from shallow to deep locations and include four points with collocated twins for representativness.

Variability in sample results is anticipated in a dynamic system. Near shore sample points are thought to have thinner sediment accumulations than deeper sites. Uniform metals contamination is not likely. An attempt will be made, based on the results, to map spatial variation in contaminate types and levels.

If a sample cannot be collected from a site then attempts will be made to collect that sample at a nearby location. A random compass heading will be selected and a new sample attempt will be made at a point approximately 30 meters in that direction. This new site will be given a unique identification number and its position captured by GPS.

Sampling is scheduled for June 22 & 23, 2006. Samples processing will be attempted in the field. If field processing becomes cumbersome, samples will be taken back to MP-157's lab facility for homogenization and sieving. Samples will be sent to the contract analytical laboratory during the following week.

Mercury results are to be considered the critical component of this sampling effort. Fully qualified results are needed by the middle of August 2006 to assess the data and report on it by September 2006.

VIII. Sampling Methods

The sample area identified in figure 1 (pg 5) will be incorporated into a Geographic Information System (GIS) to obtain the area coordinates. Once the coordinates are known, GIS can generate random sampling points within the project area. (See Appendix A pg 15) The coordinates generated can then be loaded into a field ready Global Positioning System utilizing "beacon on the belt" technology to locate the sampling points in the field within one meter.

The preferential sampling method is to utilize a gravity corer; this device is lowered into the bottom sediments and traps a vertical sediment profile in a thin-walled core barrel (clear polycarbonate). A positive check valve maintains a vacuum on the sample as it is recovered through the water column. A slide hammer can also be utilized to drive the core barrel further into the sediments if necessary. Upon retrieval, the bottom of the core tube is capped before breaking the air-water interface (with core extruding plug or poly end cap) to prevent loss of sample.

When the sample is retrieved a photo will be taken of the intact core. Notes will be recorded on the time of collection, depth of sample, field ID, length of core, and physical characteristics of the core (i.e. layering of fine or coarse grain sediments or pockets) The sample will be extruded into a plastic mixing bowl using the core extruding tool. The sample will then be homogenized and a representative sample of predetermined size will be placed into the sample bottle.

The secondary sampling method is to utilize a Ponar sampler. A Ponar dredge is a heavyweight sediment sampling device with weighted jaws that is lever activated. It is used to collect consolidated fine to coarse textured sediment.

If the gravity corer is unable to collect suitable samples the Ponar will be employed to attempt collection. The device is lowered to the bottom where it is tripped to close when its hanging weight is removed. The sample is brought to the surface where any free liquid is decanted through the top screens. The sample is then emptied into a stainless steel mixing bowl for homogenization.





Figure 2 : Ponar (L) and Gravity Corer (R)

If neither of the two previous methods are able to retrieve a sample then a US BMH-60 bed-material sampler will used in an attempt to obtain a surface sediment sample.

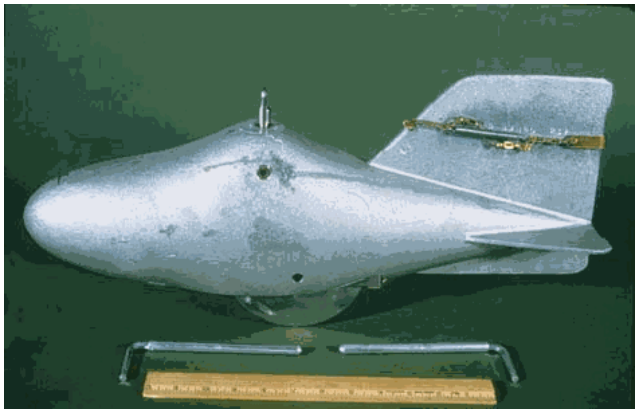


Figure 3 : BMH-60 bed material sampler

The preferred method for sample collection in this study will be to utilize the gravity corer. Contamination will be kept to a minimum due to the plastic

construction of this device. Only if the sediments in the project area prove to be to difficult to sample with the gravity corer will the Ponar or BMH-60 be used.

To recover quality cores the gravity corer will be lowered slowly to the bottom. The weight of the unit will penetrate the sediment. Adjustments to the weight can be made in the field by adding or reducing the number of weights. If greater penetration is needed a slide hammer attachment can be utilized to pound the core barrels deeper.

When the corer is brought to the surface the end is capped before it breaks the surface. The barrel is then removed from the core head and the sample removed using the core extruder. The cores are pushed out into a clean opened cubitainer where the sample is homogenized.

Samples will be homogenized using a plastic impeller (mixing bar) attached to a 12 volt cordless drill. When the sample is well mixed a raw sample will be collected for total metals. A separate sample will be removed for processing for 63 micron sieving for trace mercury.

The trace mercury sample will first be sieved through a large pore opening plastic colander for removal of large debris and gravel (> 2 mm). The sample will then be placed on a two layer bedded sieve. The top sieve (held in an eight inch acrylic frame) will be a tightly stretched 830 micron nylon monofilament material. The sample will fall into the lower layer that is the final 63 micron mesh. The material will be washed through the sieve using environmental water. The sieve frames will be located on top of an eight inch plastic funnel which directs the sample into a sample bottle (500 ml wide mouth HDPE, pc class).

The material is washed through the sieves using a clean plastic Nalgene® wash bottle. When the sample bottle fills with water and further sieving is needed to collect enough sample material (16 grams), the water in the sample bottle will be decanted back to the wash bottle for further washing.

IX. Sample Handling and Custody

Samples will be collected in containers approved by the EPA. Samples will be placed in ice chests with blue ice and chilled to four degrees Celsius. Samples will be transported as soon as possible after sample collection to the laboratory for analysis. Samples are packaged in accordance with procedures outlined in the FSOP and QASOP. A hardbound logbook is used to record the following information in the field at the time of sediment collection: site location, time and date of collection, description of sampling procedures, conditions under which the samples are collected, personnel collecting the samples, sample identification number, weather conditions, and any additional comments that may be appropriate. The logbook is kept at Reclamation's Sacramento office.

Field sheets are used to record the site location, field identification number, collection date, type of QA sample, sample type, analyses requested, personnel collecting the sample, and any additional comments that may be appropriate. Field sheets are for internal use by both field and QA personnel and are not submitted to the laboratory. They are filed at Reclamation's Sacramento office.

Chain of custody sheets are used to document the custody of samples and record field identifications of samples, date and time collected, sample type, number of sample containers, types of analyses requested, dates and signatures documenting the custody of samples, and any additional remarks that may be appropriate. All samples will be accompanied by a COC. The COC must be filled out with ink. When the samples are transferred from one party to another, the individuals will sign, date, and note the time on the form. A separate form will accompany each delivery of samples to the laboratory. The COC will be included in the cooler used for preservation and transport of the samples. MP-157 will retain a copy of the COC prior to shipping samples to the laboratory.

X. Analytical Methods

The sediment samples will be analyzed for total trace mercury and DataChem's suite for total metals. The laboratory will follow the protocols for preparation, analysis, and corrective actions stated in the analytical methods and the laboratory Standard Operating Procedures (SOP).

Mercury

Prior to analysis the laboratory will centrifuge the samples, decant the water, and dry them for up to four hours @ 70ºC. Then the mercury samples will be prepped and analyzed by EPA 7471.

Metals

The metals samples will be digested by EPA 3050 and analyzed by EPA 6020.

XI. Quality Control

As part of the quality assurance for this project, the Quality Assurance Specialist will incorporate quality assurance (QA) samples and validate those results. Additionally, the analytical report will be reviewed. All validation and review will be performed in accordance with the guidelines from the Environmental Monitoring Branch's *Standard Operating Procedures for Quality Assurance*, January 2005.

Accuracy checks:

Soil reference materials will be incorporated with the samples submitted to the laboratory at a rate of at least 10% of the number of production samples (or at least one reference sample is incorporated if less than 10 production samples are submitted).

Precision checks:
Duplicate samples for analysis of the metals will be prepared in the field. Duplicate reference samples for analysis of mercury will be incorporated prior to shipment to the laboratory. Duplicate samples will be analyzed with production samples and are incorporated at a rate of at least 10% of the number of production samples (or at least one reference sample is incorporated if less than 10 production samples are submitted).

Contamination checks:
Blank soil reference samples will be incorporated at a rate of at least 5% of the number of production samples (or at least one blank sample is incorporated if less than 20 production samples are submitted).

Laboratory QC:
It is the policy of the QA Section of MP157 to review the laboratory=s internal QC for any analytical report. The laboratory's QC check samples must meet certain levels of acceptability when analyzed with the production samples. These levels of acceptability are established with control charts or set at certain limits found in the methods.

Holding Times:

The date of the sample extraction/analysis will be compared to the date the sample was collected to ensure the sample was extracted and analyzed within the holding time. If the holding times are exceeded, the program manager will determine if re-sampling is required. If re-sampling is not required, the QA specialist will qualify the data as necessary.

Completeness:

If the completeness criterion is not met, then appropriate re-sampling will occur. Completeness is determined by calculating the following:

$$\%completeness = \left(\frac{V}{n}\right)(100)$$

V = Number of Valid Results
n = Total Number of Results

XII. Instrument/Equipment Testing, Calibration, Inspection, and Maintenance

There is no specific testing or calibration required on field equipment. Inspection and maintenance of field equipment will be maintained for safety and to prevent sample contamination.
The laboratory performs instrument calibrations following the procedures and protocols stated in the analytical methods for each parameter.

XIII. Inspection/Acceptance for Supplies and Consumables

500 ml wide mouth HDPE, pc class bottles will be used for both mercury and metals samples. Only bottles ordered specifically for this project will be used ensuring that specific lot numbers for those bottles can be tracked for potential contamination.

References used for external QA incorporation have certified values from the vendor.

XIV. Data Management

In conjunction with the project name, the alpha-numeric field sample identifications assigned for this project will be FSS followed by the sequential number (i.e. FSS20).

Data management also includes field sheets, COC, laboratory data reports, field log books and project binders.

Field sheets and COC's are generated, inspected and signed by the field sampler. These documents are turned in to the QA specialist. The QA specialist will contact any field sampler whose paper work contains significant errors or omissions. The QA specialist turns these documents to the DMT to be entered into the Environmental Monitoring Database and filed in the project binder.

Laboratory data reports are received by the QA specialist to review and document QA metadata. After the laboratory data reports are reviewed by the QA specialist, the data reports are signed and sent to the DMT for review. The DMT enters the analytical results (µg/kg) and the QA metadata in the Environmental Monitoring Database.

All data entered into the database follows the DMT SOP. As a QC check, all data entered will be secondarily reviewed by an additional DMT member and initialed. After all data has been entered into the database, the data is signed and filed in project binders.

Field logbooks and project binders are locked in a file cabinet and must be signed out by individuals.

Assessment and Oversight

XV. Assessments and Response Actions

Audits

The QAT audits each laboratory analyzing samples, each field sampler collecting samples, and documentation produced in the field.

Laboratory

The three-tier audit consists of reviewing the laboratory's Quality Assurance Manual, reviewing the laboratory's performance evaluation sample results, and conducting an intensive, on-site, system audit of the laboratory. The laboratory's expertise in conducting analyses, their capability for producing valid data, their ability to effectively support the data, and the integrity of the Quality Assurance/Quality Control practices are assessed during the on-site audit. Laboratory audits are conducted every three years. The audit reports are issued to the laboratory. The laboratory then issues a response with corrective actions to MP157. At that time, the QAT determines whether or not to approve the laboratory for use and contacts the laboratory with their decision.

Field

The field audit consists of reviewing the Standard Operating Procedures, submitting performance evaluation samples and reviewing the results, and accompanying the field sampler while they demonstrate the sample collection process. The QAT assesses the field sampler's expertise in collecting representative samples. Field audits are conducted every two years. The field audit reports are sent to the field sampler and MP157's EMT Leader. The EMT Leader is responsible for issuing corrective actions.

Documentation

Twice a year, field logbooks, instrument calibration sheets, and field sheets are audited by the QAT to ensure that all the necessary information is correctly documented. The documentation audit reports are sent to the field sampler and the EMT Leader. The EMT Leader is responsible for issuing corrective actions.

XVI. Reports to Management

The QAT will write audit reports to the individuals identified in section XV at the frequency documented in section XV.

Also, the QAT will write a QA summary report for each sampling event per section VI. Quality assurance reports will be issued to the EMT and will summarize all QA/QC findings in regard to this investigation and the data generated.

Data Validation and Usability

XVII. Data Review, Verification, and Validation

If all external QA samples and laboratory QC samples meet the acceptance criteria and all samples are analyzed within the holding time, all data will be accepted as valid.

If a result is confirmed after reanalysis, the result will be accepted as valid.

Data will be qualified if results demonstrate unacceptable QA after being reanalyzed, if the laboratory QC sample results are unacceptable, or if the holding times were exceeded.

The data assessor will determine the usability of the data.

XVIII. Verification and Validation Methods

The QA specialist will validate the data by following the guidelines in the Environmental Monitoring Branch's *Standard Operating Procedures for Quality Assurance*, January 2005.

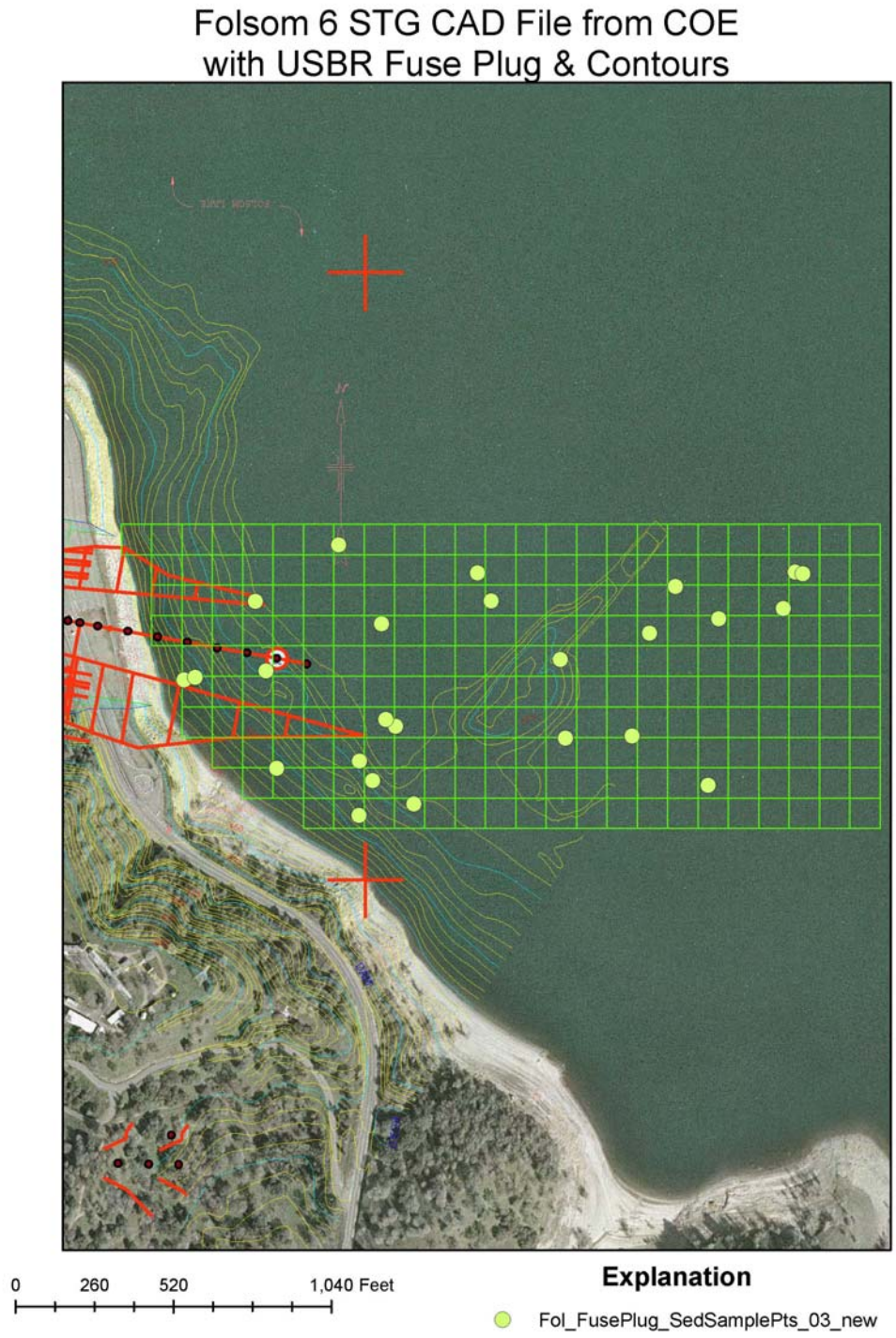
If any of the external QA sample results do not meet the acceptance criteria stated in section IV, the samples are submitted for reanalysis. If the laboratory confirms the original result, the original data is accepted based on the laboratory demonstrating that sample preparation and instrumentation was run properly on the initial analysis. If the original result cannot be confirmed, the laboratory must then analyze a bracket of samples or the entire batch of samples an additional time for the parameter. The bracket of samples or the entire batch of samples that has been analyzed an additional time is then evaluated for the parameter to see if the results meet the acceptance criteria in section IV. Professional judgment is used to decide which set of data to accept and whether or not the data should be qualified if both sets of data demonstrate unacceptable external QA sample results.

XIX. Reconciliation with User Requirements

Any qualified results will be identified to the data entry staff (DMT) by completing the Data Requiring Qualifiers and/or Data With Outliers form or the Parameter Not Analyzed Within Holding Time form per MP157 protocol. Additionally, if results are qualified, the result will be marked with a footnote on the data table submitted to the data assessor (EMT); the footnote will detail the qualification.

Appendix A

Preliminary Sample Locations



Appendix B

Sampling Equipment List

Boat with winch and davit
Gravity corer + accessories
Ponar
BMH-69 bed material sampler
500 ml HDPE sample bottles
Funnel
860 µg sieve cloth
63 µg sieve cloth
Sieve frames
Rubber bands
Spatula
Policeman
Plastic Colander
Plastic mixing bowls
Cubitainers
Stirrers
12 volt electric drill
DI water
Wash bottles
Latex gloves
Ice Chest
Blue Ice
GPS
Camera
Log book
Pens and labels
Triple beam scale
Locking carabineers
Cell phone
Swedge tool and sleeves
Tape measure

Appendix C

Sediment guidelines

Metals by EPA 6020		State of Florida	State of Florida	NOAA	NOAA	Lower Columbia	Lower Columbia	Candian Sediment
						Dredged Material	Dredged Material	
	SFRWQCB	TEL	PEL	ERL	ERM	screening level	maximum level	
		mg/kg dry	mg/kg dry	mg/kg dry	mg/kg dry	mg/kg	mg/kg	mg/kg
Aluminum								
Antimony						150	200	
Arsenic	33	7.24	41.6	8.2	70	57	700	5.9
Barium								
Beryllium								
Boron								
Cadmium	5	0.676	4.21	1.2	9.6	5.1	14	0.6
Cerium								
Cesium								
Chromium	220	52.3	160.4	81	370			37.3
Cobalt								
Copper	90	18.7	108.2	34	270	390	1300	35.7
Gallium								
Gold								
Iron								
Lead	50	30.24	112.18	46.7	218	450	1200	35
Lithium								
Magnesium								
Manganese								
Molybdenum								
Nickel	140	15.9	42.8	20.9	51.6	140	370	
Palladium								
Platinum								
Potassium								
Selenium	0.7							
Silver	1	0.733	1.77	1	3.7	6.1	8.4	
Sodium								
Strontium								
Tellurium								
Thallium								
Tin								
Titanium								
Total Thorium								
Total Uranium								
Tungsten								
Vanadium								
Zinc	160	124	271	150	410	410	3800	123

SFRWQCB = San Francisco Bay Regional Water Qualtiy Control Board – Disposal Option Sediment Screening Criteria for Levee Restoration
TEL = Threshold Effects Levels
PEL = Probable Effects Levels
ER-L = Effects Range-Low
ER-M =Effects Range-Medium

Appendix 2 Data Table

	site 1	site 2	site 3	site 4	site 5	site 6	site 7	site 8	site 9	site 10	site 11	site 12	site 15	site 16	site 17	site 18	site 19	site 23	units	goal - sediment criteria	source
Aluminum	28000	32000	25000	28000	32000	25000	23000	23000	15000	18000	19000	21000	27000	28000	24000	21000	23000	28000	mg/kg	**n/a**	-
Antimony	<1.6	<1.6	<1.3	<1.6	<1.7	<1.6	<1.7	<1.8	<1.2	<1.5	<1.8	<1.3	<1.6	<1.5	<1.5	<1.4	<1.2	<1.3	mg/kg	**150**	DMF
Arsenic	8.9	12	7.8	9.4	12	9.2	7.8	7.1	4.1	5.2	6.5	5	9.2	9.2	7.4	5.7	5.8	7.1	mg/kg	**57**	DMF
Barium	220	260	230	230	240	200	210	200	150	180	200	190	220	240	210	180	210	230	mg/kg	**10000**	CDTSC
Beryllium	0.67	0.76	0.6	0.63	0.78	0.63	0.67	0.62	0.42	0.54	0.63	0.43	0.68	0.71	0.6	0.53	0.58	0.61	mg/kg	**75**	CDTSC
Boron	6.8	<5.3	<4.3	<5.2	6.6	<5.5	<5.7	<5.8	<4.1	<5.1	<6.1	<4.2	6.9	5.1	<4.9	<4.6	<4.0	<4.2	mg/kg	**n/a**	-
Cadmium	<0.53	<0.53	<0.43	<0.52	<0.56	<0.55	<0.57	<0.58	<0.41	<0.51	<0.61	<0.42	<0.54	<0.51	<0.49	<0.46	<0.40	<0.42	mg/kg	**5.1**	DMF
Cerium	36	45	37	36	44	35	36	34	22	28	34	25	37	41	36	31	25	37	mg/kg	**n/a**	-
Cesium	1.3	1.7	1.2	1.4	1.5	1.2	1	1.2	0.77	0.87	0.91	1.3	1.5	1.5	1.2	1.1	1.5	1.5	mg/kg	**n/a**	-
Chromium	81	86	64	80	87	72	64	67	44	55	51	51	69	69	64	54	61	72	mg/kg	**370**	RWCQB*
Cobalt	23	26	21	24	25	21	21	21	17	19	20	18	21	22	20	18	21	21	mg/kg	**270**	RWCQB*
Copper	66	71	64	69	72	60	59	57	41	49	50	44	59	57	53	45	53	58	mg/kg	**390**	DMF
Gallium	8.1	9.4	7.3	8.3	9.2	7.3	7.3	7.3	5	5.9	6.3	6.7	8.1	8.7	7.1	6.2	7.2	8.3	mg/kg	**n/a**	-
Gold	<2.4	<2.4	<1.9	<2.4	<2.5	<2.5	<2.6	<2.6	<1.8	<2.3	<2.7	<1.9	<2.4	<2.3	<2.2	<2.1	<1.8	<1.9	mg/kg	**n/a**	-
Iron	43000	48000	36000	42000	47000	38000	39000	39000	26000	32000	34000	32000	40000	41000	36000	29000	34000	39000	mg/kg	**n/a**	
Lead	17	26	21	19	23	20	23	18	12	15	24	19	24	26	21	16	15	22	mg/kg	**450**	DMF
Lithium	17	20	15	17	19	15	14	15	10	12	13	14	17	18	15	14	16	18	mg/kg	**n/a**	-
Magnesium	12000	14000	9600	13000	13000	11000	11000	11000	8800	9600	9600	11000	12000	12000	11000	9300	13000	13000	mg/kg	**n/a**	-
Manganese	940	1200	840	1200	1100	930	930	850	560	810	850	520	790	900	730	580	730	740	mg/kg	**n/a**	-
Mercury	0.15	0.2	0.17	0.15	0.15	0.16	0.16	0.15	0.13	0.16	0.16	0.12	0.17	0.15	0.16	0.15	0.2	0.17	mg/kg	**0.2**	RWCQB
Molybdenum	<0.53	0.54	0.44	<0.52	<0.56	<0.55	<0.57	<0.58	<0.41	<0.51	<0.61	<0.42	<0.54	<0.51	<0.49	<0.46	<0.40	<0.42	mg/kg	**n/a**	-
Nickel	100	100	72	91	100	88	78	80	50	69	66	58	81	78	75	63	71	76	mg/kg	**140**	DMF
Palladium	<0.80	<0.80	<0.64	<0.79	<0.85	<0.82	<0.86	<0.88	<0.61	<0.77	<0.91	<0.63	<0.80	<0.76	<0.74	<0.69	0.65	<0.64	mg/kg	**n/a**	-
Platinum	<0.53	<0.53	<0.43	<0.52	<0.56	<0.55	<0.57	<0.58	<0.41	<0.51	<0.61	<0.42	<0.54	<0.51	<0.49	<0.46	<0.40	<0.42	mg/kg	**n/a**	-
Potassium	3300	3700	3000	3300	3500	2800	3100	3100	2900	2400	2800	4400	3700	4100	2800	2600	4000	4400	mg/kg	**n/a**	-
Selenium	<2.4	<2.4	<1.9	<2.4	<2.5	<2.5	<2.6	<2.6	<1.8	<2.3	<2.7	<1.9	<2.4	<2.3	<2.2	<2.1	<1.8	<1.9	mg/kg	**>200**	CRWQCB
Silver	1.5	1.1	<0.43	<0.52	1.4	<0.55	<0.57	<0.58	<0.41	<0.51	1.4	<0.42	1.7	<0.51	<0.49	<0.46	1.1	0.88	mg/kg	**6.1**	DMF
Sodium	260	320	270	240	290	220	220	240	150	190	190	170	250	240	210	210	200	230	mg/kg	**n/a**	-
Strontium	34	43	38	38	39	32	33	34	25	27	30	33	35	39	30	28	33	40	mg/kg	**n/a**	-
Tellurium	<0.80	<0.80	<0.64	<0.79	<0.85	<0.82	<0.86	<0.88	<0.61	<0.77	<0.91	<0.63	<0.80	<0.76	<0.74	<0.69	<0.60	<0.64	mg/kg	**n/a**	-
Thallium	0.58	<0.53	<0.43	<0.52	<0.56	<0.55	<0.57	<0.58	<0.41	<0.51	<0.61	<0.42	0.65	<0.51	<0.49	<0.46	<0.40	<0.42	mg/kg	**n/a**	-
Thorium	4.4	5.5	4.3	4.5	5.2	4.5	1.2	0.98	0.46	0.64	0.86	3.1	4.6	4.9	4.4	3.5	3.2	4.3	mg/kg	**n/a**	-
Tin	0.87	0.83	0.67	0.72	0.81	0.64	<0.57	<0.58	<0.41	<0.51	<0.61	1.6	0.97	0.9	0.65	0.53	0.71	0.71	mg/kg	**n/a**	-
Titanium	970	1200	880	1100	1100	880	760	830	550	540	650	1100	1200	1200	860	770	1200	1200	mg/kg	**n/a**	-
Tungsten	<0.80	<0.80	<0.64	<0.79	<0.85	<0.82	<0.86	<0.88	<0.61	<0.77	<0.91	<0.63	<0.80	<0.76	<0.74	<0.69	<0.60	<0.64	mg/kg	**n/a**	-
Uranium	2.6	2.9	2.3	2.6	3	2.4	2.6	2.6	1.6	2.1	2.4	1.7	2.5	2.6	2.2	1.9	1.8	2.3	mg/kg	**n/a**	-
Vanadium	90	99	78	91	98	80	84	86	62	74	74	66	82	86	76	64	72	86	mg/kg	**2400**	CDTSC
Zinc	82	94	75	83	93	77	83	84	60	68	77	79	87	99	76	69	81	84	mg/kg	**410**	DMF

DMF = Dredged Material Evaluation Framework - Lower Columbia River Management Area - November 1998
RWCQB = Mercury in Sediment Standard fractional portion less than 0.65 micron
RWCQB * = Recommended Sediment Chemistry Guideline Beneficial Reuse of Dredged Material - Wetland Foundation
CRWCQB = San Francisco Bay Region - Class I Disposal Option Sediment Screening Criteria
CDTSC = California Departmet of Toxics Substance - Soil Criteria TTLC

Appendix 3

Quality Assurance Summary Report

RECLAMATION
Managing Water in the West

U. S. Bureau of Reclamation
Mid-Pacific Region
Environmental Monitoring Branch, MP-157

Joint Federal Project: Auxiliary Spillway Folsom Sediment Characterization

Quality Assurance Summary Report

On June 29, 2006, the Environmental Monitoring Team (EMT) collected samples in support of the Joint Federal Project: Auxiliary Spillway Folsom Sediment Characterization. The Quality Assurance Team (QAT) incorporated External Quality Assurance (QA) samples with the production samples to assess the ability of the DataChem Laboratories to produce reliable data. Personnel from the QAT reviewed the production sample and laboratory Quality Control sample results, and validated the external QA samples. The QA sample results are discussed below.

Precision

Most parameters had Relative Percent Differences (RPDs) within the QA acceptance limits.

Thorium:

The initial RPD for QA regular/duplicate samples FSS00A/FSS010A was 68%. Sample reanalysis did not confirm so DataChem Labs performed re-prep and reanalysis for the bracket of samples between FSS00A - FSS010A. The bracket reanalysis RPD for QA regular/duplicate samples FSS00A/FSS010A was 93%. Because the regular/duplicate RPD for the initial results was closer to the QA acceptance criteria of $\leq$ 35% RPD, the initial results were accepted with the qualification that production results within the bracket are suspect and may show excessive variability from their true values.

Accuracy
Most parameters had Percent Recoveries (PRs) within the QA acceptance limits.

Beryllium:
Reference analysis of sample FSS014 resulted in a PR of 38%. Reanalysis of this sample confirmed the original result with 6% RPD so original data accepted.

Cadmium:
Reference analysis of sample FSS014 resulted in a PR of 21%. Reanalysis of this sample confirmed the original result with 7% RPD so original data accepted.

Chromium:
Reference analysis of sample FSS014 resulted in a PR of 61%. Reanalysis of this sample confirmed the original result with 7% RPD so original data accepted.

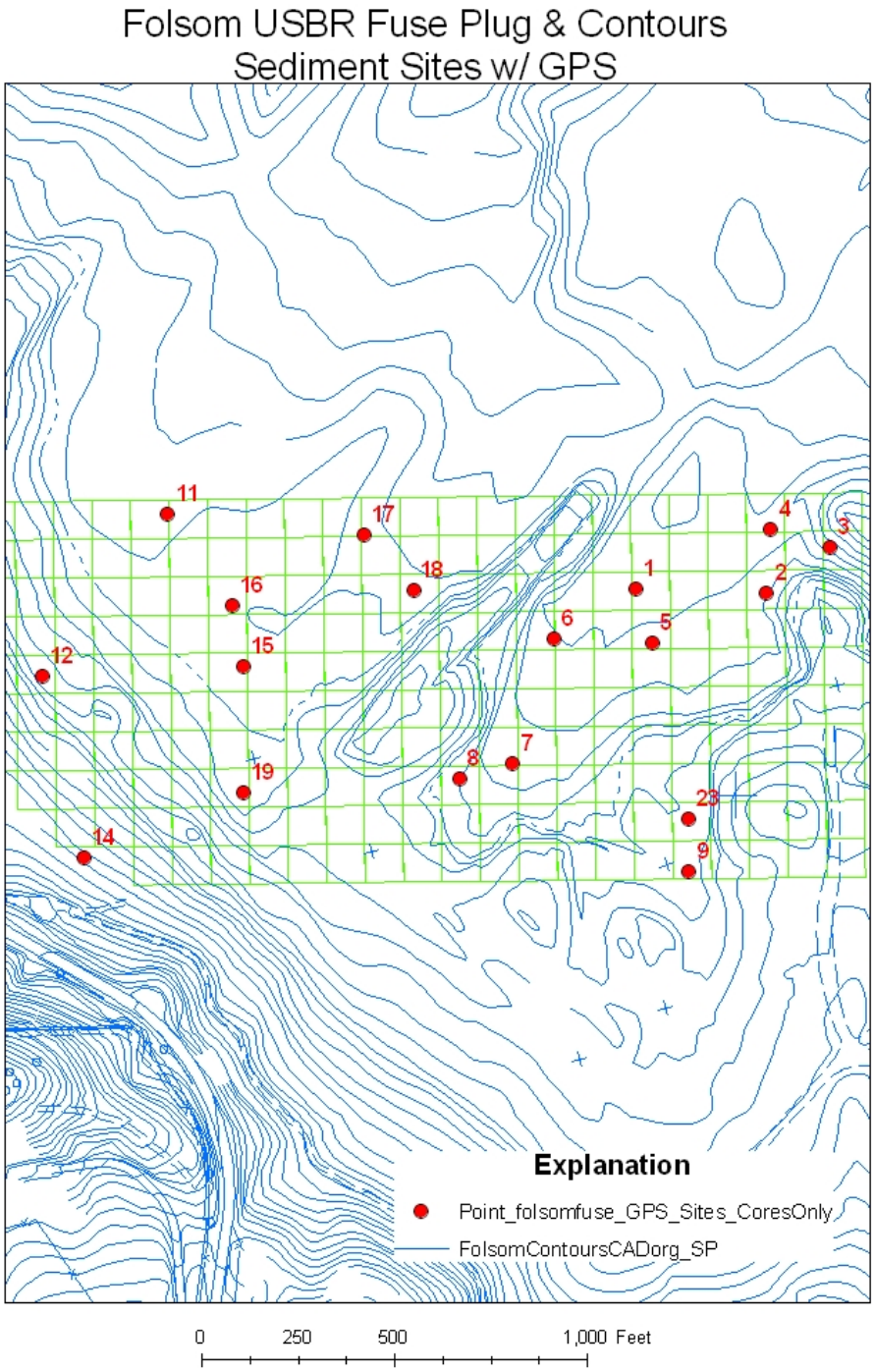
Vanadium:
Reference analysis of sample FSS014 resulted in a PR of 58%. Reanalysis of this sample confirmed the original result with 14% RPD so original data accepted.

Contamination
The QA blank sample was acceptable with respect to contamination for the parameters where contamination could be assessed.

Completeness
All parameters for this study met the 100% acceptance limit.

Holding Times
All samples were analyzed within the recommended holding times of the parameters.

Appendix 4 Site Locations



Appendix 5 Field Sample Information

Site Name (Location)	Depth	Core Size (inches)
1	120	7
2	119	8
3	107	5
4	119	7.5
5	119	8
6	120	4
7	112	8.5
8	108	14
9	95	7
10	118	4
11	106	6
12	100	4
15	104	10.5
16	104	4
17	107	6.5
18	108	4
19	100	4.5
23	95	5.5