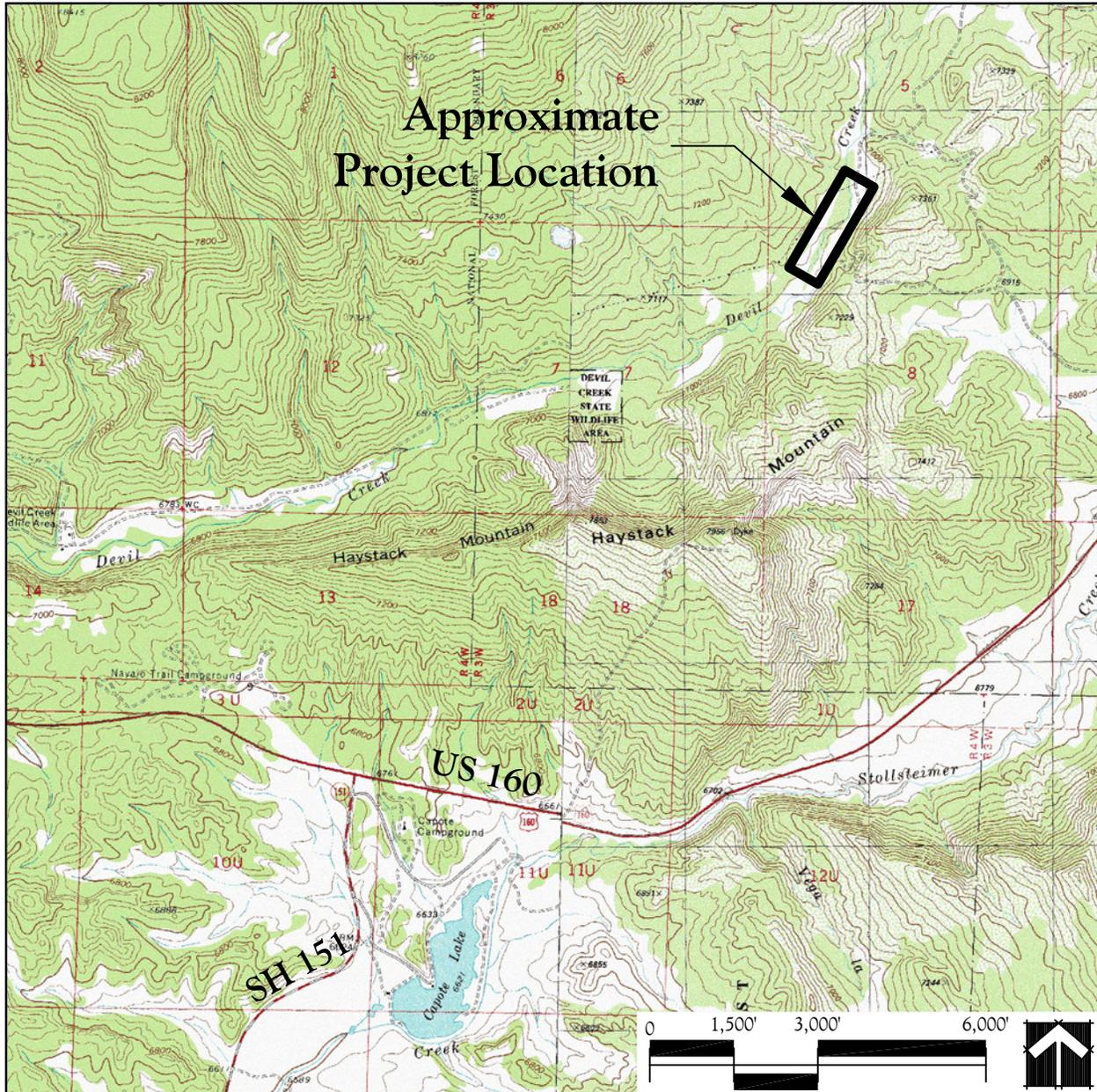
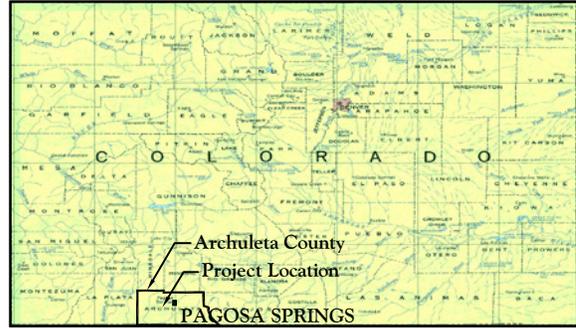


PROJECT LOCATION:

Sections 5 & 8, Township 34 North, Range 3 West.
New Mexico Principal Meridian,
Archuleta County, Colorado.

CENTROID LOCATION:

Latitude: 37° 14' 15"
Longitude: -107° 14' 15"

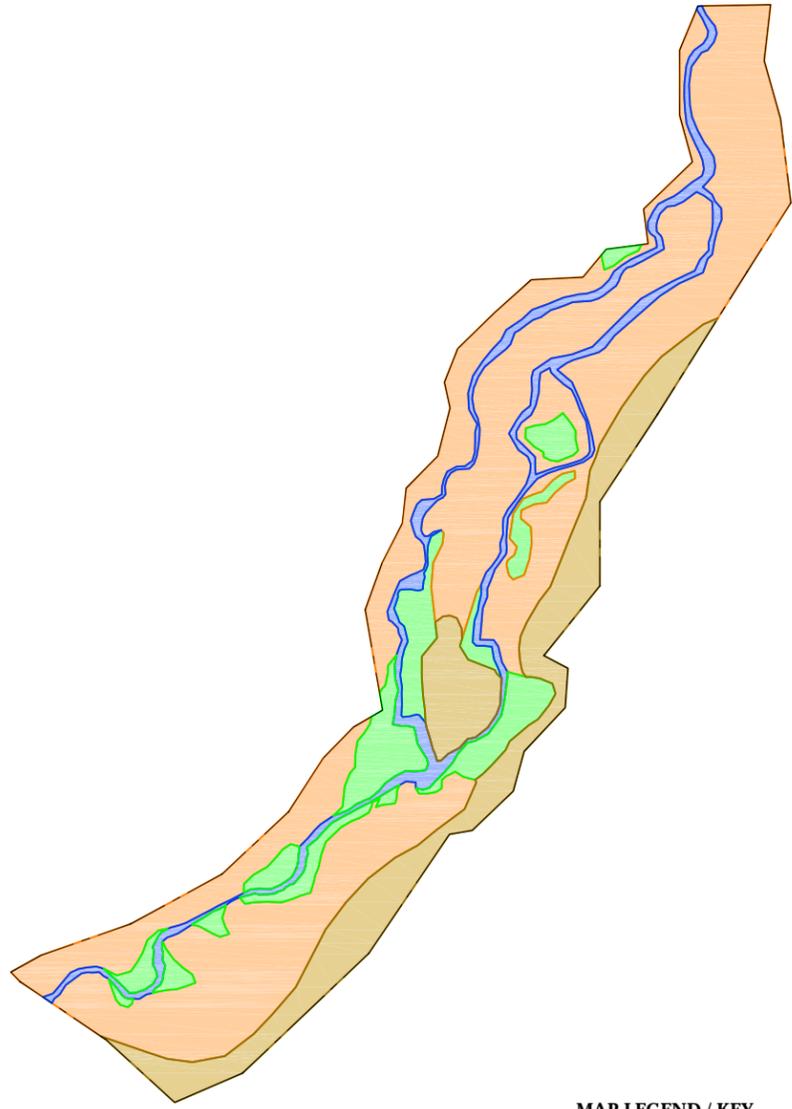


PROJECT LOCATION
KEYAH GRANDE GRAVEL PIT
RECLAMATION & MITIGATION PLAN

FIGURE 1

Source: Chimney Rock & Lonetree Mountain,
Colo. 7.5' USGS Quadrangles

ORIGINAL SITE CONDITIONS



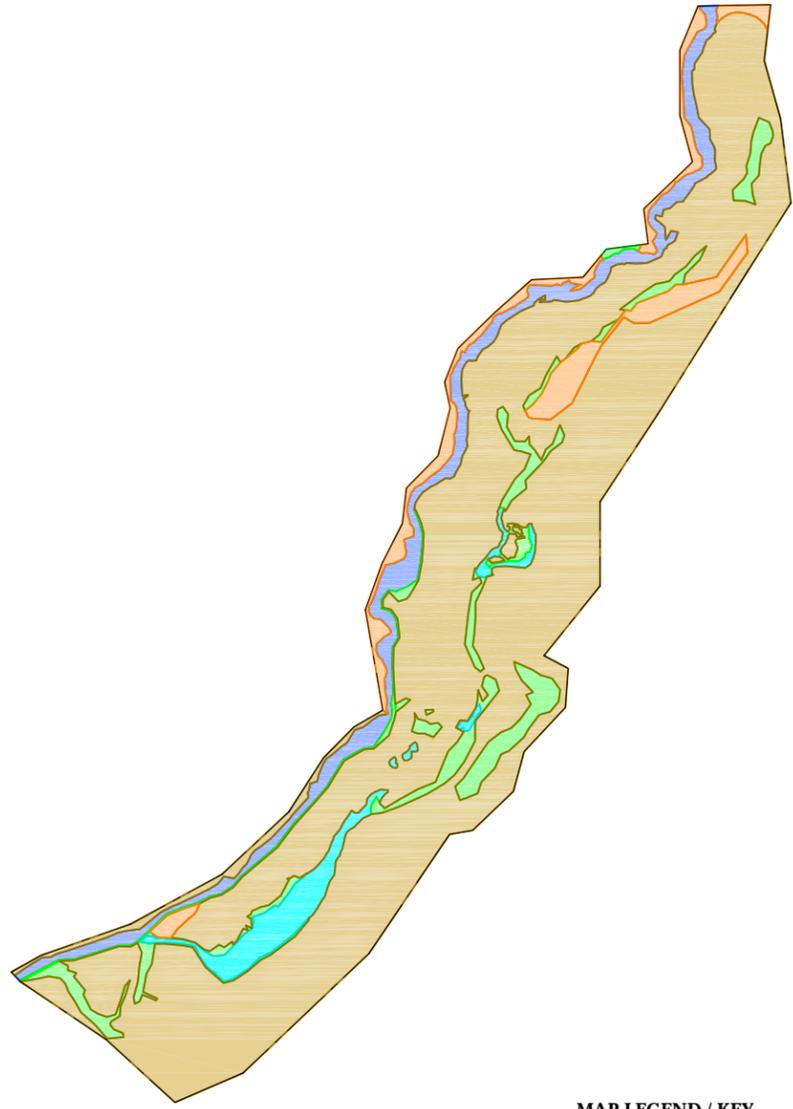
MAP LEGEND / KEY

Keyah Grande Pit Boundary (2008) - - - - -

JURISDICTIONAL WATERS OF THE US

Upland Non Cottonwoods		6.29 AC
Upland Cottonwoods		21.42 AC
Open Waters (OW)		0.00 AC
Devil Creek (R3SB/R4SB)		2.68 AC
Palustrine Emergent & Scrub Shrub (PEM/PSS)		4.16 AC
TOTAL:		34.55 AC

2008 CURRENT SITE CONDITIONS



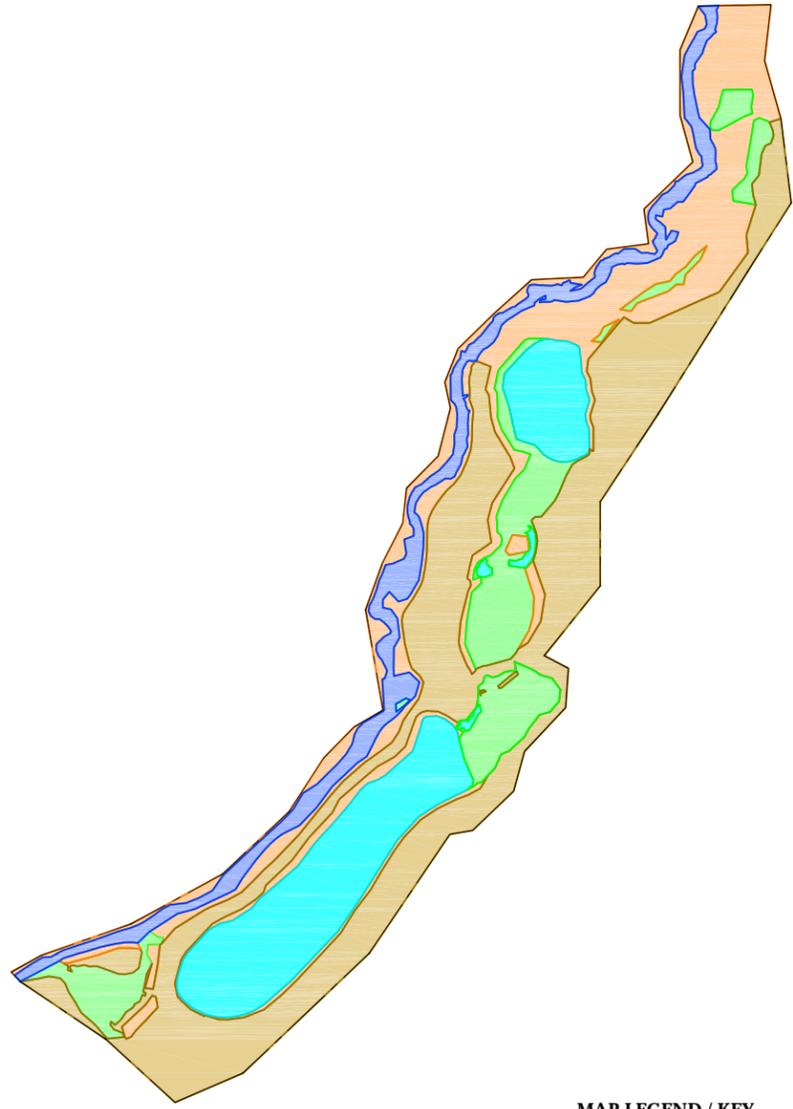
MAP LEGEND / KEY

Keyah Grande Pit Boundary (2008) - - - - -

JURISDICTIONAL WATERS OF THE US

Upland Non Cottonwoods		25.81 AC
Upland Cottonwoods		2.08 AC
Open Waters (OW)		1.24 AC
Devil Creek (R3SB/R4SB)		2.80 AC
Palustrine Emergent & Scrub Shrub (PEM/PSS)		2.62 AC
TOTAL:		34.55 AC

PROPOSED SITE CONDITIONS



MAP LEGEND / KEY

Keyah Grande Pit Boundary (2008) - - - - -

JURISDICTIONAL WATERS OF THE US

Upland Non Cottonwoods		12.73 AC
Upland Cottonwoods		8.28 AC
Open Waters (OW)		6.08 AC
Devil Creek (R3SB/R4SB)		3.19 AC
Palustrine Emergent & Scrub Shrub (PEM/PSS)		4.27 AC
TOTAL:		34.55 AC

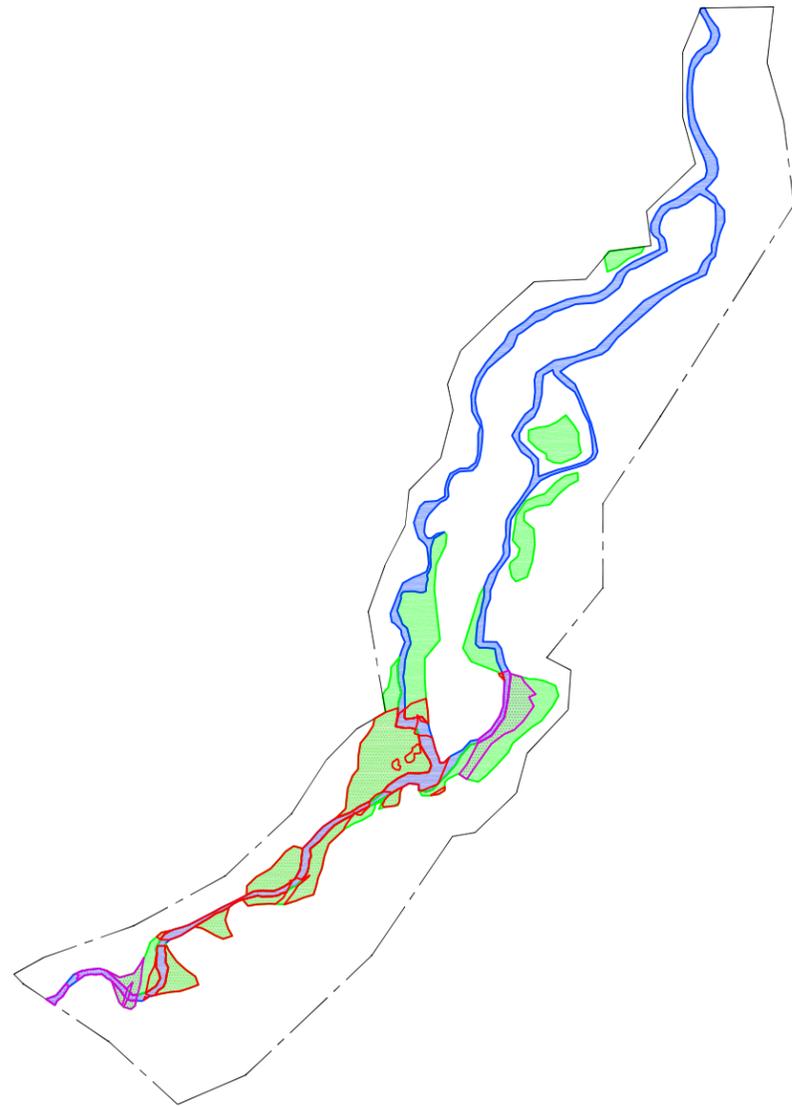
PRELIMINARY NOT
FOR CONSTRUCTION OR
RECORDING

HABITAT COMPARISON; PAST, CURRENT & PROPOSED
RECLAMATION & WETLAND MITIGATION PLAN
KEYAH GRANDE GRAVEL PIT

Date: April 29, 2008
Revised On: April 29, 2008
Job No.: 060002
File: Figure 1-04.24.08.dwg
Scale: 1" = 100'

Notes:

ORIGINAL SITE CONDITIONS



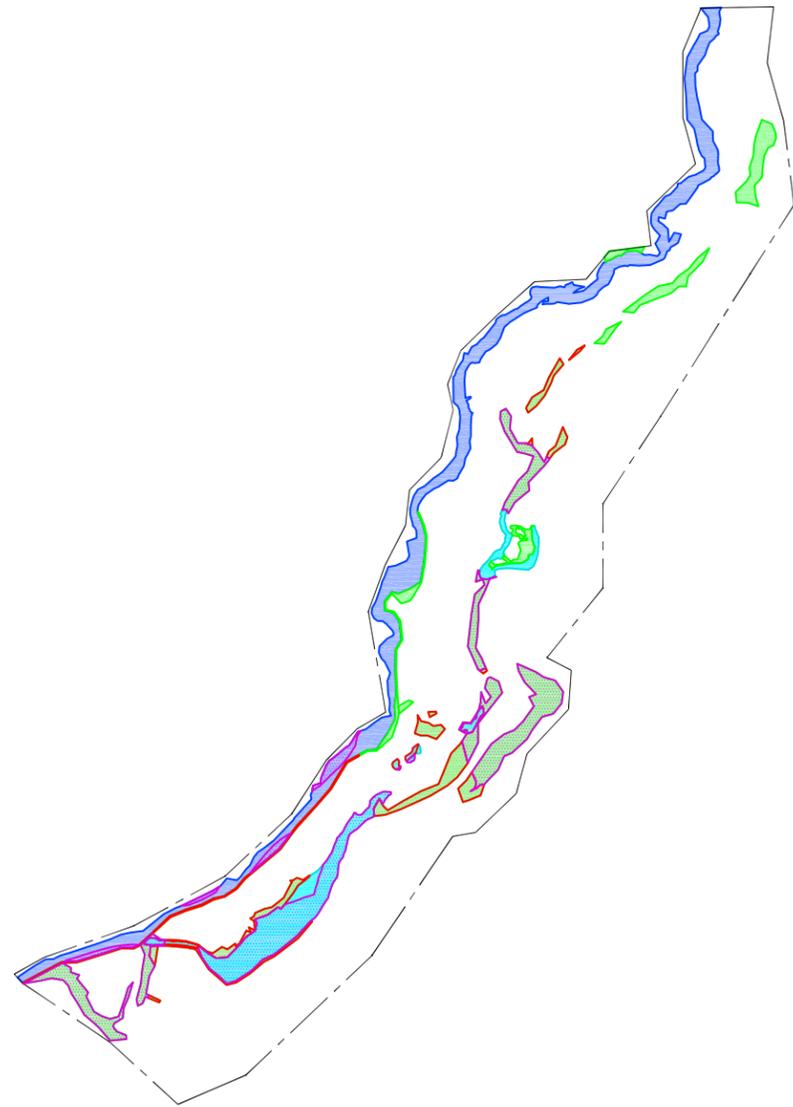
MAP LEGEND / KEY

Keyah Grande Pit Boundary (2008) - - - - -

JURISDICTIONAL WATERS OF THE US

	Permanent Impacts		Temporary Impacts	
Open Waters (OW)		0.00 AC		0.00 AC
Devil Creek (R3SB/R4SB)		0.54 AC		0.15 AC
Palustrine Emergent & Scrub Shrub (PEM/PSS)		1.59 AC		0.39 AC
TOTAL:		2.13 AC		0.54 AC

2008 CURRENT SITE CONDITIONS



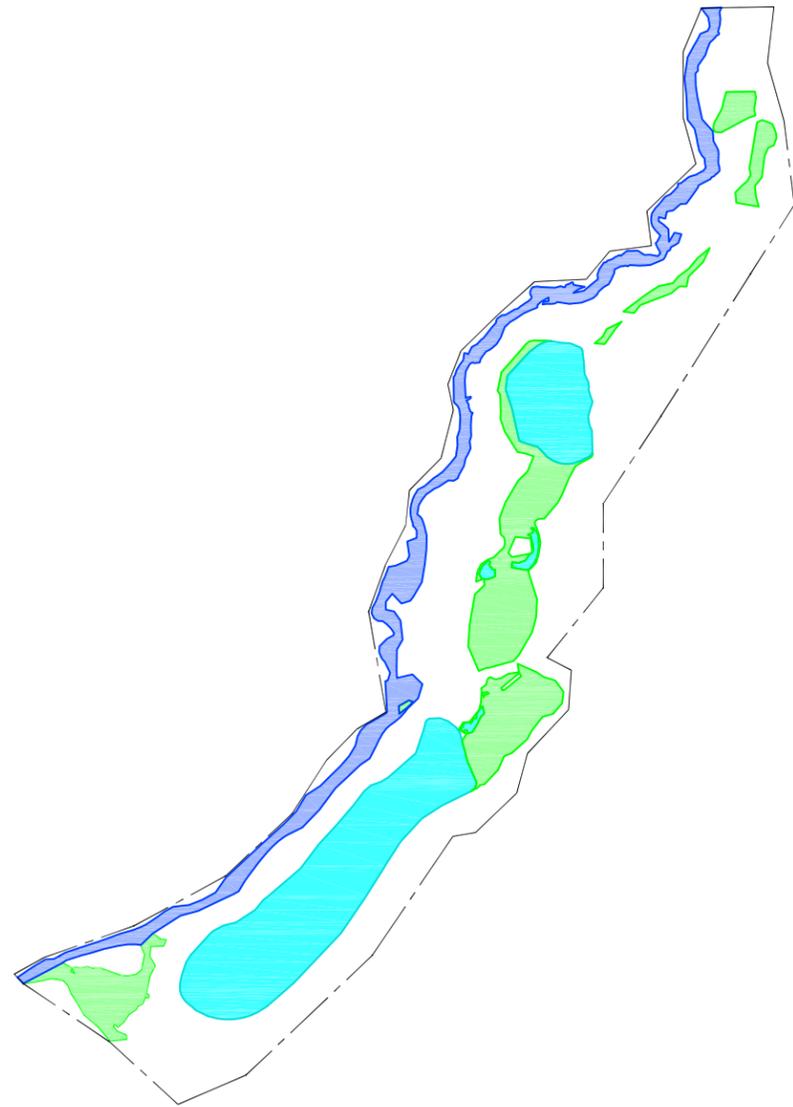
MAP LEGEND / KEY

Keyah Grande Pit Boundary (2008) - - - - -

JURISDICTIONAL WATERS OF THE US

	Permanent Impacts		Temporary Impacts	
Open Waters (OW)		0.07 AC		0.93 AC
Devil Creek (R3SB/R4SB)		0.00 AC		0.18 AC
Palustrine Emergent & Scrub Shrub (PEM/PSS)		0.70 AC		1.28 AC
TOTAL:		0.77 AC		2.39 AC

PROPOSED SITE CONDITIONS



MAP LEGEND / KEY

Keyah Grande Pit Boundary (2008) - - - - -

JURISDICTIONAL WATERS OF THE US

Open Waters (OW)		6.08 AC
Devil Creek (R3SB/R4SB)		3.19 AC
Palustrine Emergent & Scrub Shrub (PEM/PSS)		4.27 AC
TOTAL:		13.54 AC

PRELIMINARY NOT
FOR CONSTRUCTION OR
RECORDING

HABITAT COMPARISON; PAST, CURRENT & PROPOSED
IMPACT COMPARISON MAP
KEYAH GRANDE GRAVEL PIT

Date: May 19, 2008
Revised On: May 19, 2008
Job No: 060002
File: Figure 2-05.19.08.dwg
Scale: 1" = 500'

Notes:

02

PLANTING SCHEDULE

MATERIAL	RATE	AREA	QUANTITY
Willow Stakes	4 F.O.C.	2.7 acres	apx. 8000 stakes
Cottonwood Poles	20 F.O.C.	3.5 acres	apx. 400 poles
Wetland Seed	8 lbs./acre	4.4 acres	apx. 35 lbs.
Upland Seed	10 lbs./acre	6.0 acres	apx. 60 lbs.

MITIGATION SUMMARY

**KEYAH GRANDE GRAVEL PIT
WATERS OF THE U.S.
IMPACTS AND MITIGATION COMPARISON TABLE**

IMPACTS (acres)			
PAST IMPACTS	Permanent	Temporary	Total
Wetland (PEMPS)	1.59	0.39	1.98
Stream (R9/R4S)	0.54	0.15	0.69
Open Water	0.09	0.00	0.09
Sub-Total	2.19	0.54	2.73
PROPOSED IMPACTS			
PAST IMPACTS	Permanent	Temporary	Total
Wetland (PEMPS)	0.70	1.28	1.98
Stream (R9/R4S)	0.18	0.18	0.36
Open Water	0.07	0.93	1.00
Sub-Total	0.95	2.39	3.34
TOTAL IMPACTS	2.90	2.93	5.83
MITIGATION			
CREATION	Acres	Credit Ratio	Acres Credit
Wetland (PEMPS)	3.02	1:2	1.51
Stream (R9/R4S)	0.00	1:1	0.00
Open Water	5.02	1:12	0.42
Sub-Total	8.04		1.93
RESTORATION			
CREATION	Acres	Credit Ratio	Acres Credit
Wetland (PEMPS)	1.67	1:1.5	1.11
Stream (R9/R4S)	1.65	1:1	1.65
Open Water	0.93	replacement	0.93
Cottonwood Restoration	3.27	1:12	0.27
Sub-Total	7.62		3.97
TOTAL MITIGATION	15.66		5.90

*3.96 acres of wetland impact is directly mitigated by 4.69 acres of wetland creation/restoration, which maintains a slightly greater than 1:1 replacement thereby meeting the "no net loss" policy and avoiding complications with water rights within the area as described. Compensation for tree lag associated with past impacts is provided by out-of-kind mitigation in the form of stream enhancement, open water habitat and cottonwood restoration. The mitigation plan seeks to restore a functional riparian system that is sustainable in perpetuity with little to no maintenance.

PLANTING NOTES:

SEEDING SPECIFICATIONS:

All seed shall be provided in the amounts and species specified on the planting schedule. All seed shall be furnished in bags or containers clearly labeled to show the name and address of the supplier, the seed name, the lot number, origin, the percent of weed seed content, the guaranteed percentage of purity and germination, pounds of pure live seed (PLS) of each seed species and total weight. All brands furnished shall be free from invasive species. Seed which has become wet, moldy or otherwise damaged in transit or in storage will not be acceptable. The restoration consultant must approve all seed mixes prior to seeding. Seed shall have a minimum germination and maximum purity of eighty-five percent (85%). Seed shall not exceed 1% weed content. The Contractor shall broadcast or drill seed specified seed mixes upon completion of grading. Seed shall be worked into the seedbed to a depth of 0 to 1 inch below the surface by hand rakes or equivalent method to insure good seed to soil contact. Upland Seeding Areas shall be mulched at a rate of 2 tons per acre with native, certified weed free hay, crimped and tackified or hydromulched and tackified upon approval of restoration consultant.

WILLOW STAKES AND COTTONWOOD POLE SPECIFICATIONS:

In general the material should be harvested in the early spring, prior to bud-burst. The stakes and poles should be stored, if necessary, in cold, dark storage until they are ready to be planted. The stakes and poles should be soaked for approximately one week prior to planting to stimulate the primordial tissue. The willow stakes should range in size from 3 to 6 feet in length and the cottonwood poles should vary in length from 6 to 12 feet. Terminal buds and lateral branches should be removed, but a few lateral buds should remain above ground. Approximately 1-2 feet of the stake/pole should remain above ground but the bottom should reach the water table at its lowest point during the growing season. Special equipment may be necessary for the planting of the stakes and poles. The restoration consultant should be contacted with regards to timing and techniques for the harvest and planting of willow stakes and Cottonwood Poles.

GENERAL NOTES:

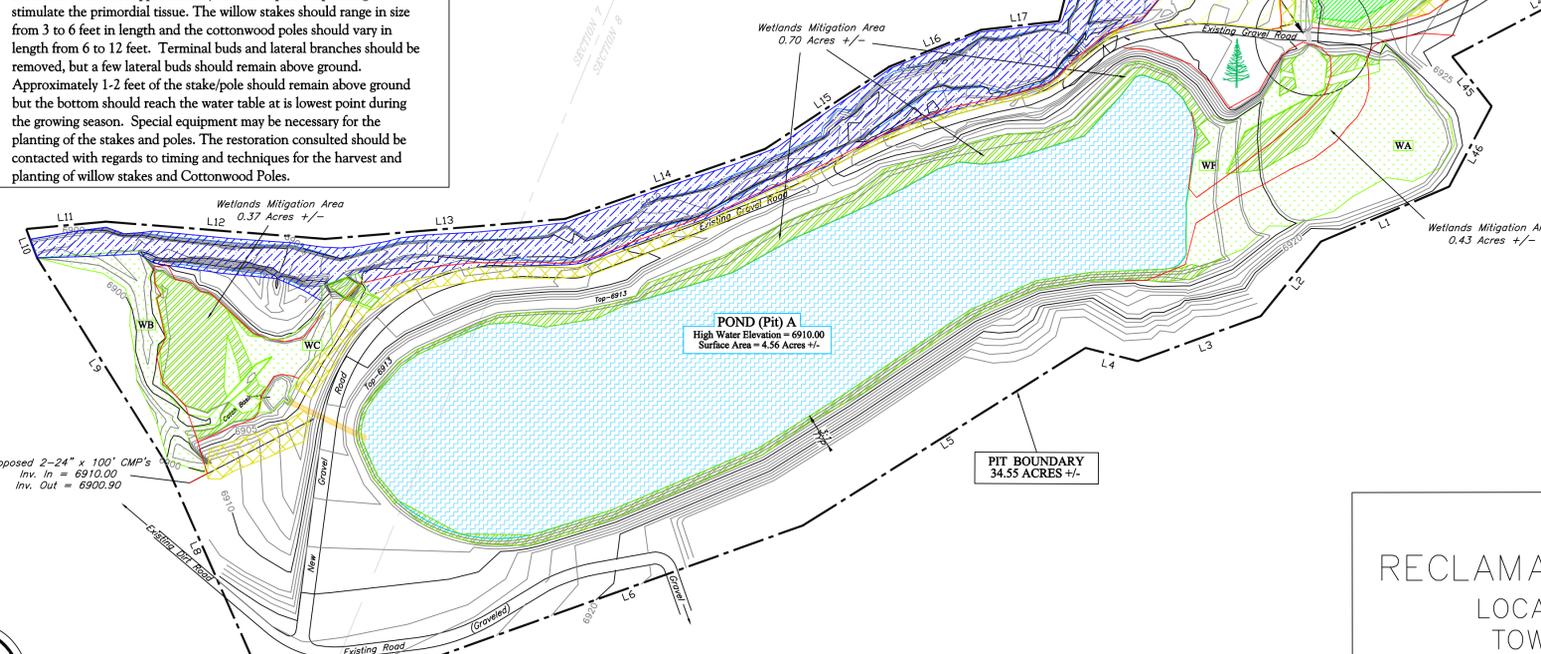
- All work to be done shall be in conformance with the U.S. Army Corps of Engineers Section 404 Permit.
- Temporary erosion control measures (i.e. silt fence, sediment traps, etc.) shall be installed prior to site work, and all measures shall be maintained in working order until the site is stabilized.
- All grading is to be done in accordance with the requirements of the Archuleta Counties grading ordinances.
- The contractor or any sub contractor for this contract shall notify the county and appointed restoration consultant at least two (2) working days in advance of performing any work.
- Unless otherwise provided, the contractor shall obtain at his own expense all permits and licenses required for the execution of the work.
- Prior to any construction activity the restoration consultant shall identify any existing wetland, riparian or sensitive areas. Haul routes and stockpile areas within the project site are to be identified prior to commencement of operations by the owner's representative.
- If any activity performed by the contractor encroaches on or damages any existing wetlands staked in accordance with these grading notes, the contractor shall be solely responsible for any costs related to cleanup, repair and / or restoration of such wetlands.
- Site specific soil conditions may require modifications to design and adjustments in layout and/or construction techniques. These changes may result in more or less excavation or variations to planting plan and consequently may create a change in costs. No changes shall occur unless approved by the owner's authorized representative.
- Contractor shall maintain adequate dust control per the Archuleta County dust control standards.
- All disturbed wetland and upland areas shall be revegetated. Revegetation shall be by hydromulched or otherwise stabilized by spreading the top 4 to 6 inches of seed bearing soil. The method of revegetation, and application date, are to be approved by the owner's representative.
- Construction contractor agrees that in accordance with generally accepted construction practices, construction contractor will be required to assume sole and complete responsibility for job site conditions during the course of construction of the project including safety of all persons and property; that this requirement shall be made to apply continuously and not be limited to normal working hours, and construction contractor further agrees to defend, indemnify and hold the design professional harmless from any and all liability, real or alleged, in connection with the performance of work on this project, excepting liability arising from the sole negligence of the design professional.
- These plans and all related documents related herein shall be on-site throughout the construction period.

WETLAND TOPSOIL AND WILLOW SALVAGE SPECIFICATIONS:

An attempt will be made to harvest intact sod, willow root wads, and vegetative plugs from proposed wetland disturbance areas. After vegetation harvest is completed the first 6 to 10 inches of soil will be removed using a backhoe and transported to the mitigation areas and stockpiled for use as mitigation area topsoil. Stockpile time may be reduced or eliminated by proper timing of mitigation area grading. During the salvage operation, stormwater management BMPs, per Archuleta County standards, will need to be installed and maintained. The restoration consultant may be contacted for more detail on the harvest and preparation of willow stakes and cottonwood poles. Please note that special equipment may be necessary for the planting of willow stakes and cottonwood poles depending on the substrate. In cobbly substrate an auger or stinger may be needed to create the planting holes.

ORDER OF WORK TO BE PERFORMED:

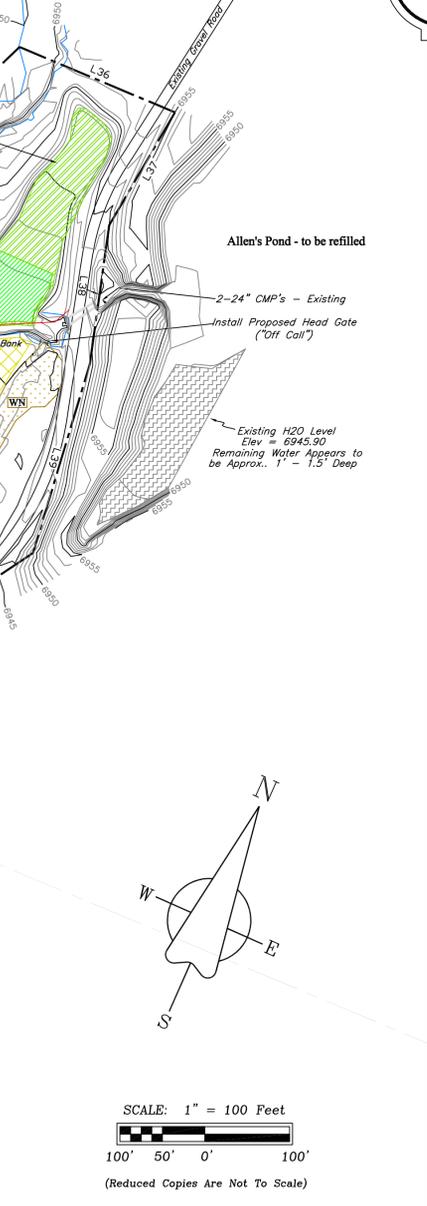
- A pre-construction meeting will be held which shall involve the attendance of the owner's representative, the restoration consultant and any contractors or subcontractors.
- The restoration consultant will flag boundaries of existing wetland or other sensitive areas to be preserved during the construction process. The installation contractor will install orange fencing and/or silt fencing as specified by the SWMP or as specified by the restoration consultant.
- Contractor to layout compensation wetlands in coordination with the restoration consultant.
- Mass grading of wetland creation areas and disposal of spoils in designated areas. The wetland mitigation area will be graded to 6 inches below final surface elevation and verified by restoration consultant.
- Collect samples of topsoil for lab analysis.
- Placement of topsoil previously harvested from impacted wetlands and additional soil amendments as necessary (see step 5). 6" of topsoil shall be placed in wetland mitigation area and final grade established.
- Willow stakes (3-6' long) will be harvested from the proposed wetland impact area. And soaked/prepared for re-planting
- Willow root-wads will be excavated in large clumps and re-planted in mitigation area.
- Fine grading of created wetlands - to be verified by restoration consultant.
- Finish grading and de-compaction of wetland area, add coarse woody debris or other habitat features as applicable.
- Seed mitigation area with designated wetland seed mix.
- Plant willow stakes and Cottonwood Poles.
- Revegetation of disturbed upland areas with seed bearing topsoil and seed, as needed.
- Installation contractor prepares areas that were disturbed so that they have a natural appearance.
- Restoration consultant to approve finished wetland mitigation before the equipment is moved from site.
- Hydro-seed all disturbed upland areas at the direction of the owner's representative.
- Produce survey of as-built conditions - submit to USACOE with first year monitoring report. Update as-built survey as necessary.



**KEYAH GRANDE GRAVEL PIT
RECLAMATION, BMP & WETLAND PLANTING PLAN
LOCATED IN A PORTION OF SECTIONS 5, 7 & 8
TOWNSHIP 34 NORTH, RANGE 3 WEST, N.M.P.M.**

MAP LEGEND

BMPs (Silt Fence, Hay Bale, Wattle, etc.)	5,625 Linear Feet
Proposed Willow Wetland	2.40 acres
Proposed Wetland Meadow	0.62 acres
Proposed Open Water Area	5.95 acres
Existing Wetland Area	0.56 acres
Restored Wetland Area	1.67 acres
Restored Upland Meadow	2.75 acres
Restored Cottonwood Area	3.37 acres
Restored Stream Area	1.65 acres



Contour Interval = 1 Foot
Elevations Based on GPS Observation, (Geoid 99)

SME
BLIGNETT & MOORE ENVIRONMENTAL, INC.
555 Rivergate Lane, B1-101
Durango, CO 81301
970-259-9595 office
970-259-0050 fax
www.sugnet.com

REV: March 2, 2008

DRAWN BY: PMH
DATE: March 2, 2008

DWG: 050056-Keyah Grande, Archuleta Co
\\CAD\CAD\Mitigation Figures\Mitigation Plan 3-1-08.dwg

BASE DATA PROVIDED BY:

COSTER SURVEYS
473 LEWIS STREET, Suite A
P O BOX 4130
PAGOSA SPRINGS - CO 81157-4130
970-264-1120 office
970-264-1123 fax
landsurveys@skywrx.com

REV:

SCALE: 1" = 100'
DATE: Feb. 8, 2008
SHEET 4 OF 4

DRAWN BY: MRW
CHECKED BY: DDC
DWG: 2008/County/Keyah Grande

KEYAH GRANDE GRAVEL PIT
RECLAMATION MAP
LOCATED IN A PORTION OF SECTIONS 5, 7 & 8
TOWNSHIP 34 NORTH, RANGE 3 WEST, N.M.P.M.
Client: KEYAH GRANDE