APPROVED JURISDICTIONAL DETERMINATION FORM U.S. Army Corps of Engineers SECTION I: BACKGROUND INFORMATION A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 04-Mair-2009

C. PROJECT I OCATION AND BACKGROUND INFORMATION:

 State :
 AZ - Arizona

 County/parish/borough:
 Mohave

 City:
 N/A

 Lat:
 36.112415

 Long:
 -113.973601

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Sacramento District, SPK-2009-00283-JD4

Folder UTM List
UTM list determined by folder location

NAD83 / UTM zone 37S
Waters UTM List

UTM list determined by waters location

This list determined by waters local

NAD83 / UTM zone 37S

Name of nearest waterbody:

Lake Mead
Name of nearest Traditional Navigable Water (TNW): Lake Mead
Name of watershed or Hydrologic Unit Code (HUC): 150100

Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc.) are associated with the action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office Determination Date: 04-Mar-2009

Universal Transverse Mercator

Field Determination Date(s): 18-Feb-2009

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

There [] "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area.

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There [] "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

1. Waters of the U.S.

Indicate presence of waters of U.S. in review area:1

| a. maicute presence of waters of 0.0. in review area. | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|
| Water Name | Water Type(s) Present | | | | | | | | |
| SPK20090283D | Non-RPWs that flow directly or indirectly into TNWs | | | | | | | | |

b. Identify (estimate) size of waters of the U.S. in the review area:

Area: 526.091 (m²)

Linear: (m)

c. Limits (boundaries) of jurisdiction:

based on: Established by OHWM.

OHWM Elevation: (if known)

2. Non-regulated waters/wetlands:³

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

1.TNW

Not Applicable.

2. Wetland Adjacent to TNW

Not Applicable

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: 2258.04 acres
Drainage area: 2258.04 acres
Average annual rainfall: 10.56 inches
Average annual snowfall: 4.3 inches

(ii) Physical Characteristics (a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through [] tributaries before entering TNW.

Project waters are 1 (or less) river miles from TNW.

Project waters are 1 (or less) river miles from RPW.

Project Waters are 1 (or less) aerial (straight) miles from TNW.

Project waters are 1 (or less) aerial(straight) miles from RPW. Project waters cross or serve as state boundaries.

Explain: The wash does not serve or cross state boundaries

Identify flow route to TNW:⁵ Directly into Lake Mead

Tributary Stream Order, if known:

| Order | Tributary Name |
|-------|----------------|
| 2 | SPK20090283D |

(b) General Tributary Characteristics: Tributary is:

| Tributary Name | Natural | Artificial | Explain | Manipulated | Explain |
|----------------|---------|------------|---------|-------------|---------|
| SPK20090283D | X | - | - | - | - |

Tributary properties with respect to top of bank (estimate):

| Tributary Name | Width (ft) | Depth (ft) | Side Slopes |
|----------------|------------|------------|-------------|
| SPK20090283D | 100 | 2 | 3:1 |

Primary tributary substrate composition:

| Tributary Name | Silt | Sands | Concrete | Cobble | Gravel | Muck | Bedrock | Vegetation | Other |
|----------------|------|-------|----------|--------|--------|------|---------|------------|-------|
| SPK20090283D | X | X | _ | X | X | - | - | - | - |

Tributary (conditions, stability, presence, geometry, gradient):

| Tributary Name | Condition\Stability | Run\Riffle\Pool Complexes | Geometry | Gradient (%) |
|----------------|------------------------|---------------------------|------------|--------------|
| SPK20090283D | Some erosion occurring | None | Meandering | 2 |

(c) Flow:

| Tributary Name | Provides for | Events Per Year | Flow Regime | Duration & Volume |
|----------------|----------------|-----------------|--|---|
| SPK20090283D | Ephemeral flow | 2-5 | Flows occur during storm events, which occur about 2-5 times per year. | Appears to deliver a significant amout of water during storm events |

Surface Flow is:

| Tributary Name | Surface Flow | Characteristics |
|----------------|--------------------|-----------------|
| SPK20090283D | Overland sheetflow | |

Subsurface Flow:

| Tributary Name | Subsurface Flow | Explain Findings | Dye (or other) Test |
|----------------|-----------------|------------------|---------------------|
| SPK20090283D | Unknown | - | _ |

Tributary has:

| Tributary Name | Bed & Banks | онwм | Discontinuous OHWM ⁷ | Explain |
|----------------|-------------|------|------------------------------------|---------|
| SPK20090283D | X | Х | - | - |

Tributaries with OHWM⁶ - (as indicated above)

| Tributary Name | онwм | Clear | Litter | Changes in Soil | Destruction Vegetation | Shelving | Wrack Line | Matted\Absent Vegetation | Sediment Sorting | Leaf Litter | Scour | Sediment Deposition | Flow Events | Wat Stain |
|----------------|------|-------|--------|-----------------|---------------------------|----------|------------|-----------------------------|---------------------|-------------|-------|------------------------|-------------|--------------|
| SPK20090283D | Х | Х | Х | Х | X | X | - | X | X | - | X | X | - | - |

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction:

High Tide Line indicated by: Not Applicable.

Mean High Water Mark indicated by: Not Applicable.

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality;general watershed characteristics, etc.).

| Tributary Name | Explain | Identify specific pollutants, if known |
|----------------|---------|--|
| SPK20090283D | None | Mostly frm sediment |

(iv) Biological Characteristics. Channel supports:

| Tributary Name | Riparian Corridor | Characteristics | Wetland Fringe | Characteristics | Habitat |
|----------------|-------------------|-----------------|----------------|-----------------|---------|
| SPK20090283D | - | - | - | - | - |

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics: Properties: Not Applicable.

(b) General Flow Relationship with Non-TNW:

Not Applicable.

Surface flow is:

Subsurface flow:

Not Applicable

(c) Wetland Adjacency Determination with Non-TNW: Not Applicable.

(d) Proximity (Relationship) to TNW: Not Applicable.

(ii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Not Applicable.

(iii) Biological Characteristics. Wetland supports:

3. Characteristics of all wetlands adjacent to the tributary (if any):

All wetlands being considered in the cumulative analysis: Not Applicable.

Summarize overall biological, chemical and physical functions being performed:

Not Applicable

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they sign chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequ in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any speci (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of sig

Findings for: SPK20090283D
The tributary has the ability to carry pollutants (mainly sediment) and flood waters into Lake Mead, and also has the ability for flood storage and retention of flood waters. The area currently provides some habit The wash has the ability to transfer nutrients and organic carbon to the TNW and surpport downstream foodwebs.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE:

1. TNWs and Adjacent Wetlands:

2. RPWs that flow directly or indirectly into TNWs:

Provide estimates for jurisdictional waters in the review area:

3. Non-RPWs that flow directly or indirectly into TNWs:8

Provide estimates for jurisdictional waters in the review area

| 1 To That Communication of Jan Carlotterian Material In this To Trotte and an | | | | | | |
|---|---|-------------------|------------------|--|--|--|
| Tributary Name | Туре | Size (Linear) (m) | Size (Area) (m²) | | | |
| SPK20090283D | Non-RPWs that flow directly or indirectly into TNWs | - | 404.6856 | | | |
| Total: | | 0 | 404.6856 | | | |

Wetlands directly abutting an RPW that flow directly or indirectly into TNWs. Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs:

Provide acreage estimates for jurisdictional wetlands in the review area:

| Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs: Not Applicable. | | | |
|--|--|--|---|
| Provide estimates for jurisdictional wetlands in the review area: Not Applicable. | | | |
| 7. Impoundments of jurisdictional waters: ⁹ Not Applicable. | | | |
| E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS INCLUDING ISOLATE WATERS: 10 Not Applicable. | D WETLANDS, THE U | USE, DEGRADATION OR DESTRUCT | TION OF WHICH COULD AFFECT INTERSTATE COMMERCE, |
| Identify water body and summarize rationale supporting determination: Not Applicable. | | | |
| Provide estimates for jurisdictional waters in the review area: Not Applicable. | | | |
| F. NON-JURISDICTIONAL WATERS. INCLUDING WETLANDS If potential wetlands were assessed within the review area, these areas did not Review area included isolated waters with no substantial nexus to interstate (or Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area was a water of the substantial nexus to interstate the substantial nexus to interstate the substantial nexus to interstate the substantial nexus area was a substantial nexus the substantial nexus area was a substantial nexus the substantial nexus area was a substantial nexus the substantial nexus the substantial nexus area was a substantial nexus the substantial nexus area. | r foreign) commerce: would have been regul | ated based soley on the "Migratory Bir | · · · · · · · · · · · · · · · · · · · |
| Other (Explain): | | | |
| Provide acreage estimates for non-jurisdictional waters in the review area, who irrigated agriculture), using best professional judgment: Not Applicable. Provide acreage estimates for non-jurisdictional waters in the review area, that | · | · | |
| Not Applicable. | t do not meet the "Si | giinicant Nexus Standard, where Su | cira infanty is required for jurisdiction. |
| SECTION IV: DATA SOURCES. | | | - |
| A. SUPPORTING DATA. Data reviewed for JD (listed items shall be included in case file and, where checked and requested, appropriately referen- | ce below): | | |
| Data Reviewed | Source Label | Source Description | |
| Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant | - | - | |
| Photographs | - | - | |
| Aerial | - | - | |
| Other information | McQueary, Patricia | USACE site visit 18-February-2009 | |
| V. | | | , |
| B. ADDITIONAL COMMENTS TO SUPPORT JD: Not Applicable. | | | |
| 1-Boxes checked below shall be supported by completing the appropriate sections in Section III below 2-For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flow 3-Supporting documentation is presented in Section III.F. 4-Note that the Instructional Guidebook contains additional information regarding swales, ditches, war 5-Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to 6-A natural or man-made discontinuity in the OHVM does not necessarily sever jurisdiction (e.g., whe the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will lool 7, libid | s year-round or has continuous shes, and erosional feature flow into tributary b, which ere the stream temporarily | es generally and in the arid West. then flows into TNW. flows underground, or where the OHWM has b | |

^{*-}total.

8-See Footnote #3.

9-To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

10-Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction.