SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 04-Mar-2009

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

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: AZ - Arizona
County/parish/borough: Mohave
City: N/A
Lat: 36.112415
Long: -113.973601

Universal Transverse Mercator (UTM) List
- NAD83 / UTM zone 37S
- Waters UTM List
- UTM list determined by folder location
- UTM list determined by waters location

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

D. REVIEW PERFORMED FOR SITE EVALUATION:

☐ 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.

Office Determination Date: 04-Mar-2009
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.
   a. Indicate presence of waters of U.S. in review area:

<table>
<thead>
<tr>
<th>Water Name</th>
<th>Water Type(s) Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPK20090283D</td>
<td>Non-RPWs that flow directly or indirectly into TNWs</td>
</tr>
</tbody>
</table>

   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:

   Potential 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 [1] tributaries before entering TNW.

Project waters are [1] river miles from TNW.
Project waters are [1] river miles from RPW.
Project Waters are [1] aerial miles from TNW.
Project waters are [1] aerial 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:
- Directly into Lake Mead

Tributary Stream Order, if known:

<table>
<thead>
<tr>
<th>Order</th>
<th>Tributary Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>SPK20090283D</td>
</tr>
</tbody>
</table>

(b) General Tributary Characteristics:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Natural</th>
<th>Artificial</th>
<th>Explain</th>
<th>Manipulated</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPK20090283D</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Width (ft)</th>
<th>Depth (ft)</th>
<th>Side Slopes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPK20090283D</td>
<td>100</td>
<td>2</td>
<td>3.1</td>
</tr>
</tbody>
</table>

Primary tributary substrate composition:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Silt</th>
<th>Sands</th>
<th>Concrete</th>
<th>Cobble</th>
<th>Gravel</th>
<th>Muck</th>
<th>Bedrock</th>
<th>Vegetation</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPK20090283D</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Condition/Stability</th>
<th>Run/Pool Complexes</th>
<th>Geometry</th>
<th>Gradient (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPK20090283D</td>
<td>Some erosion occurring</td>
<td>None</td>
<td>Meandering</td>
<td>2</td>
</tr>
</tbody>
</table>

(c) Flow:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Provides for</th>
<th>Events Per Year</th>
<th>Flow Regime</th>
<th>Duration &amp; Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPK20090283D</td>
<td>Ephemeral flow</td>
<td>2-5</td>
<td>Flows occur during storm events, which occur about 2-5 times per year.</td>
<td>Appears to deliver a significant amount of water during storm events</td>
</tr>
</tbody>
</table>

Surface Flow:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Surface Flow Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPK20090283D</td>
<td>Overland sheetflow</td>
</tr>
</tbody>
</table>

Subsurface Flow:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Subsurface Flow</th>
<th>Explain Findings</th>
<th>Dye (or other) Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPK20090283D</td>
<td>Unknown</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Tributary has:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Bed &amp; Banks</th>
<th>OHWM</th>
<th>Discontinuous OHWM²</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPK20090283D</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>-</td>
</tr>
</tbody>
</table>

Tributaries with OHWM² - (as indicated above):

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>OHWM</th>
<th>Clear Litter</th>
<th>Changes in Soil</th>
<th>Destruction</th>
<th>Shelving</th>
<th>Wrack Line</th>
<th>Matted/Absent Vegetation</th>
<th>Sediment Sorting</th>
<th>Leaf Litter</th>
<th>Scour</th>
<th>Sediment Deposition</th>
<th>Flow Events</th>
<th>Wet Stain</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPK20090283D</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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.).

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Explain</th>
<th>Identify specific pollutants, if known</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPK20090283D</td>
<td>None</td>
<td>Mostly from sediment</td>
</tr>
</tbody>
</table>
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:
Flow is:
Not Applicable.
Surface flow is:
Not Applicable.
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:
Not Applicable.

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 frequency 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 specific (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 significant nexus.

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 habitat and the wash has the ability to transfer nutrients and organic carbon to the TNW and support downstream foodwebs.

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

1. TNWs and Adjacent Wetlands:
Not Applicable.

2. RPWs that flow directly or indirectly into TNWs:
Not Applicable.

Provide estimates for jurisdictional waters in the review area:
Not Applicable.

3. Non-RPWs that flow directly or indirectly into TNWs:
Not Applicable.

Provide estimates for jurisdictional waters in the review area:

<table>
<thead>
<tr>
<th>Tributary Name</th>
<th>Type</th>
<th>Size (Linear) (m)</th>
<th>Size (Area) (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPK20090283D</td>
<td>Non-RPWs that flow directly or indirectly into TNWs</td>
<td>-</td>
<td>404.6856</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>404.6856</td>
</tr>
</tbody>
</table>

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

Provide acreage estimates for jurisdictional wetlands in the review area:
Not Applicable.

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

Provide acreage estimates for jurisdictional wetlands in the review area:
Not Applicable.
6. 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 ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, I WATERS:10
Not Applicable.

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 meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements:

Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce:

Prior to the Jan 2001 Supreme Court decision in “SWANCC,” the review area would have been regulated based solely on the “Migratory Bird Rule” (MBR):

Waters do not meet the “Significant Nexus” standard, where such a finding is required for jurisdiction (Explain):

Other (Explain):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered irrigated agriculture), using best professional judgment:
Not Applicable.

Provide acreage estimates for non-jurisdictional waters in the review area, that do not meet the “Significant Nexus” standard, where such a finding is required for jurisdiction:
Not Applicable.

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 reference 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

B. ADDITIONAL COMMENTS TO SUPPORT JD:
Not Applicable.