

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

JD Status: DRAFT

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 24-Feb-2009

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Sacramento District, SPK-2007-01668-SG-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State : NV - Nevada
 County/parish/borough: Clark
 City: Mesquite
 Lat:
 Long:
 Universal Transverse Mercator

Folder UTM List
UTM list determined by folder location
 • NAD83 / UTM zone 37S

Waters UTM List
UTM list determined by waters location
 • NAD83 / UTM zone 37S

Name of nearest waterbody: Virgin River
 Name of nearest Traditional Navigable Water (TNW): Lake Mead
 Name of watershed or Hydrologic Unit Code (HUC): 15010010

- 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: 24-Feb-2009
- Field Determination Date(s): 22-Sep-2008

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:¹

| Water Name | Water Type(s) Present |
|---------------|---|
| SPK200701668A | Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs |
| SPK200701668B | Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs |

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

Area: (m²)
 Linear: (m)

c. Limits (boundaries) of jurisdiction:

based on: 1987 Delineation Manual.
 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: []

Drainage area: []
 Average annual rainfall: inches
 Average annual snowfall: inches

(ii) Physical Characteristics

(a) Relationship with TNW:

- Tributary flows directly into TNW.
 - Tributary flows through [] tributaries before entering TNW.
- :Number of tributaries

Project waters are [] river miles from TNW.
 Project waters are [] river miles from RPW.
 Project Waters are [] aerial (straight) miles from TNW.
 Project waters are [] aerial(straight) miles from RPW.

- Project waters cross or serve as state boundaries.

Explain:

Identify flow route to TNW:⁵

Tributary Stream Order, if known:

| Order | Tributary Name |
|-------|----------------|
| 2 | SPK200701668B |
| 2 | SPK200701668A |

(b) General Tributary Characteristics:

Tributary is:

| Tributary Name | Natural | Artificial | Explain | Manipulated | Explain |
|----------------|---------|------------|---------|-------------|---------|
| SPK200701668A | X | - | - | - | - |
| SPK200701668B | X | - | - | - | - |

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

| Tributary Name | Width (ft) | Depth (ft) | Side Slopes |
|----------------|------------|------------|------------------|
| SPK200701668A | 90 | 2 | 4:1 (or greater) |
| SPK200701668B | - | 2 | 4:1 (or greater) |

Primary tributary substrate composition:

| Tributary Name | Silt | Sands | Concrete | Cobble | Gravel | Muck | Bedrock | Vegetation | Other |
|----------------|------|-------|----------|--------|--------|------|---------|------------|-------|
| SPK200701668A | - | X | - | X | X | - | - | - | - |
| SPK200701668B | - | X | - | X | X | - | - | - | - |

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

| Tributary Name | Condition/Stability | Run/Riffle/Pool Complexes | Gt |
|----------------|--|--------------------------------------|----|
| SPK200701668A | The Virgin River has some erosion, although the floodplain in the general vicinity of the project area is about 800-ft wide. It is a very active channel and has changed position numerous times over the past 50 years, especially during flood events. | Limited, but there are some present. | Me |
| SPK200701668B | - | - | Me |

(c) Flow:

| Tributary Name | Provides for | Events Per Year | Flow Regime | Duration & Volume |
|----------------|----------------|-----------------|--|--|
| SPK200701668A | Perennial flow | 2-5 | Virgin River has perennial flow through the project area. Winter storms usually are the driver for flood events. | Peak flows are relatively consistent, ranging between 5,000 and 15,000 cfs. Three substantially larger natural half of the last century (1967, 1978, and 2005). The 1989 flood event was generated by failure of an upstream natural storm events. The larger Virgin River flood events suggests that between 1922 and the 1960s larger primarily generated by summer and fall storms. Since 1967, these events have been generated by large winte |
| SPK200701668B | Perennial flow | 2-5 | - | - |

Surface Flow is:

| Tributary Name | Surface Flow | Characteristics |
|----------------|--------------|---|
| SPK200701668A | Discrete | The Virgin River is a large meandering system with multiple braided channels at this location |
| SPK200701668B | Discrete | - |

Subsurface Flow:

| Tributary Name | Subsurface Flow | Explain Findings | Dye (or other) Test |
|----------------|-----------------|--|---------------------|
| SPK200701668A | Unknown | A geotechnical report for the Bunkerville-Mesquite Bridge indicates that groundwater exists approximately 4-8 feet below the river bottom. | - |
| SPK200701668B | Unknown | - | - |

Tributary has:

| Tributary Name | Bed & Banks | OHWM | Discontinuous OHWM? | Explain |
|----------------|-------------|------|---------------------|---------|
| SPK200701668A | X | X | - | - |
| SPK200701668B | X | X | - | - |

Tributaries with OHWM⁶ - (as indicated above)

| Tributary Name | OHWM | Clear | Litter | Changes in Soil | Destruction Vegetation | Shelving | Wrack Line | Matted/Absent Vegetation | Sediment Sorting | Leaf Litter | Scour | Sediment Deposition | Flow Events | Wat Stain |
|----------------|------|-------|--------|-----------------|------------------------|----------|------------|--------------------------|------------------|-------------|-------|---------------------|-------------|-----------|
| SPK200701668A | X | X | X | - | X | X | - | - | - | - | X | X | X | - |
| SPK200701668B | X | X | X | - | - | 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 |
|----------------|----------------------------------|---|
| SPK200701668A | Water is usually sediment laden. | Urban stormwater run-off most likely contains fertilizers, pesticides, herbicides, gas, oil, hydraulic fluids, etc. |
| SPK200701668B | - | - |

(iv) Biological Characteristics. Channel supports:

| Tributary Name | Riparian Corridor | Characteristics | Wetland Fringe | Characteristics | Habitat |
|----------------|-------------------|-----------------------------|----------------|---|---------|
| SPK200701668A | X | Up to 800-ft wide in places | X | Riparian corridor includes riverine wetlands. | X |
| SPK200701668B | X | - | X | - | - |

Habitat for: (as indicated above)

| Tributary Name | Habitat | Federally Listed Species | Explain Findings | Fish/Spawn Areas | Explain Findings | Other Environmentally Sensitive Species | Explain Findings | Aquatic/Wildlife Diversity | |
|----------------|---------|--------------------------|---|------------------|---|---|------------------|----------------------------|--|
| SPK200701668A | X | X | Several species of listed fish are endemic to the Virgin River system - Virgin River chub (<i>Gila seminuda</i>) and woudfin (<i>Plagopterus argentissimus</i>) | X | See above - this area contains listed fish species. | - | - | X | The V be on river s provic numb which band one o in whi flycat |
| SPK200701668B | - | - | - | - | - | - | - | - | - |

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 Agency 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 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 sign

Significant Nexus: Not Applicable

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:

| Wetland Name | Flow | Explain |
|---------------|-----------|---|
| SPK200701668A | PERENNIAL | The Virgin River is a perennial stream and a tributary of the Colorado River. |
| SPK200701668B | PERENNIAL | - |

Provide estimates for jurisdictional waters in the review area:

| Wetland Name | Type | Size (Linear) (m) | Size (Area) (m ²) |
|---------------|---|-------------------|-------------------------------|
| SPK200701668A | Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs | - | 4046.856 |
| SPK200701668B | Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs | - | 4127.79312 |
| Total: | | 0 | 8174.64912 |

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

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

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 (ie., 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):

Not Applicable.

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 flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³-Supporting documentation is presented in Section III.F.

- ⁴-Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
- ⁵-Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
- ⁶-A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
- ⁷-ibid.
- 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