

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

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

**SECTION I: BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): June 12, 2013**

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Sacramento District, Las Vegas Wash - Sloan Channel to East Bonanza Road, SPK-2012-01327-SG**

**C. PROJECT LOCATION AND BACKGROUND INFORMATION:**

State: **Nevada** County/parish/borough: **Clark** City:  
Center coordinates of site (lat/long in degree decimal format): Lat. **36.1457977064516°**, Long. **-115.055611796763°**  
Universal Transverse Mercator: **11 674930.26 4001870.92**

Name of nearest waterbody:

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Las Vegas Wash**

Name of watershed or Hydrologic Unit Code (HUC): **Las Vegas Wash, Nevada., 15010015**

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 this action and are recorded on a different JD form:

**D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):**

Office (Desk) Determination. Date: **June 12, 2013**

Field Determination. Date(s): **January 16, 2013**

**SECTION II: SUMMARY OF FINDINGS**

**A. RHA SECTION 10 DETERMINATION OF JURISDICTION.**

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

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

**1. Waters of the U.S.**

**a. Indicate presence of waters of U.S. in review area (check all that apply):<sup>1</sup>**

TNWs, including territorial seas

Wetlands adjacent to TNWs

Relatively permanent waters<sup>2</sup> (RPWs) that flow directly or indirectly into TNWs

Non-RPWs that flow directly or indirectly into TNWs

Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs

Impoundments of jurisdictional waters

Isolated (interstate or intrastate) waters, including isolated wetlands

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

Non-wetland waters: **17170** linear feet, **~5-ft** wide, and/or **6.865** acres.

Wetlands: **0** acres.

**c. Limits (boundaries) of jurisdiction based on: Established by OHWM.**

Elevation of established OHWM (if known):

**2. Non-regulated waters/wetlands (check if applicable):<sup>3</sup>**

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**

<sup>1</sup> Boxes checked below shall be supported by completing the appropriate sections in Section III below.

<sup>2</sup> 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).

<sup>3</sup> Supporting documentation is presented in Section III.F.

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

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

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody<sup>4</sup> is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

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

(i) General Area Conditions:

Watershed size: 2200 square miles

Drainage area: 1600 square miles

Average annual rainfall: 4.32 inches

Average annual snowfall: 0 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through Pick List tributaries before entering TNW.

Project waters are 10-15 river miles from TNW.

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

Project waters are 5-10 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 Las Vegas Wash does not serve as or cross a state boundary

Identify flow route to TNW<sup>5</sup>: The Las Vegas Wash flows directly into the Colorado River (Lake Mead)

Tributary stream order, if known:

(b) General Tributary Characteristics (check all that apply):

Tributary is:  Natural

Artificial (man-made). Explain:

<sup>4</sup> Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

<sup>5</sup> 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.

Manipulated (man-altered). Explain: **The Las Vegas Wash has been significantly modified through channelization and concrete lining through much of the urban boundaries of Las Vegas.**

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

Average width: **5** feet  
Average depth: **2** feet  
Average side slopes: **3:1**.

Primary tributary substrate composition (check all that apply):

- Silts
- Sands
- Concrete
- Cobbles
- Gravel
- Muck
- Bedrock
- Vegetation. Type/% cover:
- Other. Explain: **Some of the Las Vegas Wash through the project area has been lined with articulated concrete mattress and gabion baskets**

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Appears to be stable through the golf course**

Presence of run/riffle/pool complexes. Explain: **There are some pools and riffles found within the golf course, but most of the reach is flowing water with little diversity of structure and form**

Tributary geometry: **Relatively straight**

Tributary gradient (approximate average slope): 1 %

(c) **Flow:**

Tributary provides for: **Perennial**

Estimate average number of flow events in review area/year: **2-5**

Describe flow regime: **Flows approximately 13 cfs through most of the year, attributed mostly to urban run-off. The system is very flashy and can reach volumes of 15,000 CFS during storm events.**

Other information on duration and volume:

Surface flow is: **Confined**. Characteristics:

Subsurface flow: **Unknown**. Explain findings:

Dye (or other) test performed:

Tributary has (check all that apply):

- Bed and banks
- OHWM<sup>6</sup> (check all indicators that apply):
  - clear, natural line impressed on the bank
  - changes in the character of soil
  - shelving
  - vegetation matted down, bent, or absent
  - leaf litter disturbed or washed away
  - sediment deposition
  - water staining
  - other (list):
- the presence of litter and debris
- destruction of terrestrial vegetation
- the presence of wrack line
- sediment sorting
- scour
- multiple observed or predicted flow events
- abrupt change in plant community

Discontinuous OHWM.<sup>7</sup> Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

- High Tide Line indicated by:
  - oil or scum line along shore objects
  - fine shell or debris deposits (foreshore)
  - physical markings/characteristics
  - tidal gauges
  - other (list):
- Mean High Water Mark indicated by:
  - survey to available datum;
  - physical markings;
  - vegetation lines/changes in vegetation types.

(iii) **Chemical Characteristics:**

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

Explain: **Water appears to be relatively clear**

Identify specific pollutants, if known: **Typical pollutants associated with urban run-off**

(iv) **Biological Characteristics. Channel supports (check all that apply):**

<sup>6</sup>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 in the OHWM that is unrelated to 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.

<sup>7</sup>Ibid.

- Riparian corridor. Characteristics (type, average width):
- Wetland fringe. Characteristics:
- Habitat for:
  - Federally Listed species. Explain findings:
  - Fish/spawn areas. Explain findings:
  - Other environmentally-sensitive species. Explain findings:
  - Aquatic/wildlife diversity. Explain findings: **There are water fowl associated with the pooling at the confluence of the Flamingo and Las Vegas Washes. Mallard ducks and American coots are often seen at the golf course.**

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW: NA – no wetlands were identified within the project area.

3. Characteristics of all wetlands adjacent to the tributary (if any) : NA – no wetlands were identified within the project area.

C. SIGNIFICANT NEXUS DETERMINATION : NA

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area: NA

2. RPWs that flow directly or indirectly into TNWs.

- Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: **Las Vegas Wash is a perennial system**
- Tributaries of TNW where tributaries have continuous flow “seasonally” (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: **17170** linear feet **5** wide.
- Other non-wetland waters: \_\_\_\_\_ acres.  
Identify type(s) of waters:

3. Non-RPWs<sup>8</sup> that flow directly or indirectly into TNWs. NA

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs. NA

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

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. NA

7. Impoundments of jurisdictional waters. NA

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY): NA

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY): NA

**SECTION IV: DATA SOURCES.**

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - Office concurs with data sheets/delineation report.
  - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps:
- Corps navigable waters’ study:
- U.S. Geological Survey Hydrologic Atlas:
- USGS NHD data.

<sup>8</sup>See Footnote # 3.

- USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: **1:24K; NV-LAS VEGAS NE**
- USDA Natural Resources Conservation Service Soil Survey. Citation:
- National wetlands inventory map(s). Cite name:
- State/Local wetland inventory map(s):
- FEMA/FIRM maps:
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs:  Aerial (Name & Date): **Provided in the Jurisdictional Determination - May 2013 by Newfields**  
or  Other (Name & Date): **Provided in the Jurisdictional Determination - May 2013 by Newfields**
- Previous determination(s). File no. and date of response letter: **SPK-2009-00689: August 25, 2009; SPK-2010-00070: January 14, 2010; SPK-2009-01574: November 20, 2009**
- Applicable/supporting case law:
- Applicable/supporting scientific literature: **Journal of Arid Environments, Volume 75, Issue 11, November 2011, Pages 1182-1190; Journal of Hydrology, Volume 342, Issues 3-4, 1 September 2007, Pages 320-330 Jennifer G. Duan, Steve Scott; 1. JAWRA Journal of the American Water Resources Association Volume 37, Issue 5, October 2001, Pages: 1369-1379, Krystyna A. Stave**
- Other information (please specify):

**B. ADDITIONAL COMMENTS TO SUPPORT JD:**

Historically, the Las Vegas Wash was a seasonal system that flowed in response to storm events. Since the advent of urbanization and phenomenal population growth within the Las Vegas Valley, the Las Vegas Wash is now a perennial system, driven by urban run-off. The area experiences 2-5 storm events per year, with most of them occurring as summer thunderstorms. In 2012, there were at least three localized events within the Las Vegas Valley that caused flooding and substantial damage to infrastructure.