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): July 19, 2010

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Sacramento District, Southern Nevada Supplemental Airport Infrastructure Facilities, SPK-2010-0324

| C. | PROJECT LOCATION AND BACKGROUND INFORMATION: State: Nevada County/parish/borough: Clark City: Jean Center coordinates of site (lat/long in degree decimal format): Lat. 35.90° N, Long115.21° W. Universal Transverse Mercator: |
|-------------|--|
| | Name of nearest waterbody: Las Vegas Wash |
| | Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Colorado River/Lake Mead Name of watershed or Hydrologic Unit Code (HUC): Las Vegas Wash 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. The Roach Lake and Jean Lake Drainages are assessed separately. |
| D. | REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY): Office (Desk) Determination. Date: July 19, 2010 Field Determination. Date(s): April 29, 2010 |
| SE | CTION II: SUMMARY OF FINDINGS |
| A. | RHA SECTION 10 DETERMINATION OF JURISDICTION. |
| The revi | re Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the ew_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. |
| The | re Are no "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): TNIVe including termitorial case. |
| | TNWs, including territorial seas Wetlands adjacent to TNWs |
| | Relatively permanent waters ² (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: 8606.4 linear feet: width (ft) and/or acres. |
| | Wetlands: 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): ³ |
| | Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not |

jurisdictional. Explain: The drainages associated with this Jurisdictional Determination are part of the Las Vegas Wash Watershed. However, the drainages are thirty miles from the Las Vegas Wash, thirty miles from Lake Mead and at least 10 miles from Duck Creek, the nearest RPW. The drainages flow along I-15 northward, are culverted under the freeway and enter a larger channel just south of Sloan Road. This drainage splits and one channel terminates in an old detention basin and the other continues into a large industrial complex. Beyond Sloan Road, there is no indication that the channel continues. Based on field observations and a lack of

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).

Supporting documentation is presented in Section III.F.

a continuation of an ordinary high water mark, it has been determined that these drainages do not have a significant nexus to any Traditionally navigable waters, A2 waters or an RPW's and are therefore, non-jurisdictional.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs: NA

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 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) | Wat Dra Ave | neral Area Conditions: tershed size: 2193 square miles tinage area: 2193 square miles trage annual rainfall: 4.16 inches trage annual snowfall: 0.90 inches |
|------|-------------------|---|
| (ii) | Phy | rsical Characteristics: |
| , | | Relationship with TNW: ☐ Tributary flows directly into TNW. ☐ Tributary flows through 4 tributaries before entering TNW. |
| | | Project waters are Project waters cross or serve as state boundaries. Explain: Drainages do not serve or cross a state boundary. Identify flow route to TNW ⁵ : Headwater drainages begin just southwest of Sloan, Nevada and travel northeast through several tributaries, eventually flowing into Duck Creek and then into Las Vegas Wash, which flows into Lake Mead. |
| | | Tributary stream order, if known: 5th. |
| | (b) | General Tributary Characteristics (check all that apply): Tributary is: ☐ Natural ☐ Artificial (man-made). Explain: ☐ Manipulated (man-altered). Explain: |
| | | Tributary properties with respect to top of bank (estimate): |

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.

| | | Average width: 2-10 feet Average depth: 1 feet |
|------|------|--|
| | | Average side slopes: Vertical (1:1 or less). |
| | | Primary tributary substrate composition (check all that apply): Silts Sands Concrete Cobbles Gravel Muck Bedrock Vegetation. Type/% cover: Other. Explain: |
| | | Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Relatively stable conditions. Presence of run/riffle/pool complexes. Explain: No riffles or pools present. Tributary geometry: Relatively straight Tributary gradient (approximate average slope): 2-5 % |
| | (c) | Flow: Tributary provides for: Ephemeral flow Estimate average number of flow events in review area/year: 2-5 Describe flow regime: Flows only during rain events. Other information on duration and volume: |
| | | Surface flow is: Confined. Characteristics: |
| | | Subsurface flow: Unknown. Explain findings: |
| | | Tributary has (check all that apply): Bed and banks OHWM ⁶ (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): Discontinuous OHWM. Explain: the presence of litter and debris destruction of terrestrial vegetation the presence of wrack line sediment sorting sediment sorting abrupt change in plant community |
| | | 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: purple survey to available datum; physical markings; vegetation lines/changes in vegetation types. |
| | Cha | emical Characteristics: cracterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: Water is heavily sediment laden during storm events. In tify specific pollutants, if known: Only natural sediment. The area has very little development and no urban run-off at this y be exposed to some roadway pollutants along I-15. |
| (iv) | Biol | logical Characteristics. Channel supports (check all that apply): Riparian corridor. Characteristics (type, average width): Wetland fringe. Characteristics: Habitat for: ☐ Federally Listed species. Explain findings: Possible habitat for desert tortoise. ☐ Fish/spawn areas. Explain findings: ☐ Other environmentally-sensitive species. Explain findings: ☐ Aquatic/wildlife diversity. Explain findings: |

⁶A 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.

⁷Ibid.

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

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 significantly affect the 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 a speculative or 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 of the flow of water 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 threshold of distance (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.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

- 1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: These drainages are directed along I-15 and then routed through culverts to a larger drainage. The larger drainage traverses north to northeast along the highway and then empties into a large detention basin. Although a part of the drainage continues past the detention basin, the drainage ends at a commercial parking lot and does not appear to continue to Duck Creek. The drainage basin is not part of the Clark County Regional Flood Control District facilities. The drainage area is approximately 10 miles upstream of Duck Creek, a reasonably permanent water and a tributary to Las Vegas Wash. The soils are typically sandy loam and experience rapid infiltration during most storm events. It is likely that during a 100-year storm event that water from these drainages could reach Duck Creek. The drainages most likely do not provide habitat for any water dependent species, but probably do provide corridors of travel for coyote, deer and other mammal species. Desert tortoise may also use these areas, although because they are adjacent to I-15, it is not ideal habitat. There may be some limited capacity to transfer some nutrients and organic carbon downstream to support foodwebs, but this may be limited based on the anthropogenic manipulation of downstream sources (i.e. flood control systems). It is unlikely that these drainages have a significant nexus to the Colorado River/Lake Mead.
- 2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
- 3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

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

| 1. | TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area: |
|----|---|
| | TNWs: linear feet width (ft), Or, acres. |
| | Wetlands adjacent to TNWs: acres. |
| 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: . |
| | 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: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: . | | | |
|------|---|--|--|--|
| 3. | Non-RPWs ⁸ that flow directly or indirectly into TNWs. Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C. | | | |
| | Provide estimates for jurisdictional waters within the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: . | | | |
| 4. | Wetlands directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands. Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: | | | |
| | Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: | | | |
| | Provide acreage estimates for jurisdictional wetlands in the review area: acres. | | | |
| 5. | Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C. | | | |
| | Provide acreage estimates for jurisdictional wetlands in the review area: acres. | | | |
| 6. | Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C. | | | |
| | Provide estimates for jurisdictional wetlands in the review area: acres. | | | |
| 7. | As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional. Demonstrate that impoundment was created from "waters of the U.S.," or Demonstrate that water meets the criteria for one of the categories presented above (1-6), or Demonstrate that water is isolated with a nexus to commerce (see E below). | | | |
| SU C | OLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH WATERS (CHECK ALL THAT APPLY): 10 which are or could be used by interstate or foreign travelers for recreational or other purposes. from which fish or shellfish are or could be taken and sold in interstate or foreign commerce. which are or could be used for industrial purposes by industries in interstate commerce. Interstate isolated waters. Explain: Other factors. Explain: | | | |
| Ide | ntify water body and summarize rationale supporting determination: | | | |
| Pro | Provide estimates for jurisdictional waters in the review area (check all that apply): | | | |

E.

 ⁸See 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 Following Rapanos.

| | | Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: Wetlands: acres. | | | |
|--|------|---|--|--|--|
| F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY): If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of I 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 "Migratory Bird Rule" (MBR). Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: The do not appear to have a surface water connection to downstream waters. The drainages flow along I-15 and reculverts. The drainages then flow into a larger wash that flows into a large detention basin that is not part of the County Flood Control District system. From this detention basin the possible flow of these washes terminates lot. The ordinary high water mark is not discernible past this area. Other: (explain, if not covered above): | | | | | |
| | fact | vide acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> potential basis of jurisdiction is the MBR tors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional gment (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: . Wetlands: acres. | | | |
| | | vide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such nding is required for jurisdiction (check all that apply): Non-wetland waters (i.e., rivers, streams): 8606.4 linear feet, width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: . Wetlands: acres. | | | |
| SEC | CTIC | ON IV: DATA SOURCES. | | | |
| Α. | and | PORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked 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: Las Vegas Wash 15010015. | | | |
| | http | □ USGS NHD data. □ USGS 8 and 12 digit HUC maps. U.S. Geological Survey map(s). Cite scale & quad name: 24K Sloan and Hidden Valley. USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS. 2010. c://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. National wetlands inventory map(s). Cite name: USFWS, NWI. 2010. http://www.fws.gov/wetlands/Data/Mapper.html. State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: ☐ Aerial (Name & Date):Google Maps. 2010 (From ORM database). or ☐ Other (Name & Date): Newfields. 2009. Previous determination(s). File no. and date of response letter: | | | |
| | | Applicable/supporting case law: Applicable/supporting scientific literature: Other information (please specify): | | | |

B. ADDITIONAL COMMENTS TO SUPPORT JD: The drainages associated with this Jurisdictional Determination are part of the Las Vegas Wash Watershed. However, the drainages are thirty miles from the Las Vegas Wash, thirty miles from Lake Mead and at least 10 miles from Duck Creek, the nearest RPW. The drainages flow along I-15 northward, are culverted under the freeway and enter a larger channel just south of Sloan Road. This drainage splits and one channel terminates in an old detention basin and the

other continues into a large industrial complex. Beyond Sloan Road, there is no indication that the channel continues. Based on field observations and a lack of a continuation of an ordinary high water mark, it has been determined that these drainages do not have a significant nexus to any Traditionally navigable waters, A2 waters or an RPW's and are therefore, non-jurisdictional.

Table of Unnamed Tributaries of Las Vegas Wash

| Regulatory Action Type | Size | Cowardin | HGM | Local Waterway |
|--------------------------|--------|----------|----------|-------------------------------------|
| SPK-2010-0324(70) (NRPW) | 528 | R4SB2 | RIVERINE | Unnamed Tributary of Las Vegas Wash |
| SPK-2010-0324(71) (NRPW) | 422.4 | R4SB2 | RIVERINE | Unnamed Tributary of Las Vegas Wash |
| SPK-2010-0324(72) (NRPW) | 1161.6 | R4SB2 | RIVERINE | Unnamed Tributary of Las Vegas Wash |
| SPK-2010-0324(73) (NRPW) | 1161.6 | R4SB2 | RIVERINE | Unnamed Tributary of Las Vegas Wash |
| SPK-2010-0324(74) (NRPW) | 580.8 | R4SB2 | RIVERINE | Unnamed Tributary of Las Vegas Wash |
| SPK-2010-0324(75) (NRPW) | 1742.4 | R4SB2 | RIVERINE | Unnamed Tributary of Las Vegas Wash |
| SPK-2010-0324(76) (NRPW) | 897.6 | R4SB2 | RIVERINE | Unnamed Tributary of Las Vegas Wash |
| SPK-2010-0324(77) (NRPW) | 792 | R4SB2 | RIVERINE | Unnamed Tributary of Las Vegas Wash |
| SPK-2010-0324(78) (NRPW) | 1320 | R4SB2 | RIVERINE | Unnamed tributary of Las Vegas Wash |
| Total Linear Feet | 8606.4 | | | |