### **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): 19 Jun 2007

### **B. DISTRICT OFFICE, FILE NAME, AND NUMBER:**

Sacramento District; Pahrump Valley Gravel Mining Site SPK-2007-764-NO Subject area in a closed basin with no significant connection to a tributary

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

 State: Nevada
 County: Nye
 City: Pahrump

 Center coordinates of site (lat/long in degree decimal format):
 Latitude: 36.20513° N
 Longitude: -115.86625° W
 Universal Transverse Mercator:

 Name of nearest waterbody: All tributaries are unnamed and ephemeral to this closed basin
 Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: None

 Name of watershed or Hydrologic Unit Code (HUC):
 16060015

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: 19 Jun 2007

Field Determination. Date(s):

### SECTION II: SUMMARY OF FINDINGS

### A. RIVERS AND HARBORS ACT 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]

- $\Box$  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. CLEAN WATER ACT 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: 3100 linear feet: 1 feet wide (average) and/or acres. Wetlands: 0 acres.
- **c.** Limits (boundaries) of jurisdiction based on: Established by OHWM. Elevation of established OHWM (if known): ~3700 feet m.s.l.
- 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: See Section IIIF and Section IVB Additional Comments to Support JD.

### SECTION III: CLEAN WATER ACT ANALYSIS

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

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

### A. TNWs AND WETLANDS ADJACENT TO TNWs

- Section III.A is not applicable to non-Jurisdictional Waters.
- 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)<sup>4</sup>: Section III.B is not applicable to non-Jurisdictional Waters.

### 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) <u>Relationship with TNW:</u>

- □ Tributary flows directly into TNW.
- □ Tributary flows through tributaries before entering TNW.

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<sup>5</sup>: Tributary stream order, if known:

(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):

Average width:	feet
Average depth:	feet
Average side slo	opes:

Primary tributary substrate composition (check all that apply):

- □ Silts □ Cobbles

□ Sands

BedrockOther. Explain:

☐ Gravel ☐ Vegetation. Type/% cover: □ Concrete □ Muck

Tributary condition/stability, *e.g.*, highly eroding, sloughing banks. Explain: Presence of run/riffle/pool complexes. Explain: Tributary geometry: Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: Estimate average number of flow events in review area/year: Describe flow regime: Other information on duration and volume:

Surface flow is: Characteristics:

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

Subsurface flow: Explain findings:

 $\Box$  Dye (or other) test performed:

Tributary has (check all that apply):

- $\Box$  Bed and banks
- $\Box$  OHWM<sup>6</sup> (check all indicators that apply):
  - □ clear, natural line impressed on the bank
  - $\Box$  changes in the character of soil
  - $\Box$  shelving
  - □ vegetation matted down, bent, or absent
  - □ leaf litter disturbed or washed away
  - $\Box$  sediment deposition
  - $\Box$  water staining
  - $\Box$  other (list):
- Discontinuous OHWM.<sup>7</sup> Explain:

 $\Box$  the presence of litter and debris

- □ destruction of terrestrial vegetation
- $\Box$  the presence of wrack line

 $\Box$  sediment sorting

- □ scour
- □ multiple observed or predicted flow events

□ vegetation lines/changes in vegetation types.

abrupt change in plant community

 $\Box$  survey to available datum;

 $\square$  physical markings;

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply): □ Mean High Water Mark indicated by:

□ High Tide Line indicated by:

- $\Box$  oil or scum line along shore objects
- ☐ fine shell or debris deposits (foreshore)
- □ physical markings/characteristics
- $\Box$  tidal gauges
- $\Box$  other (list):

### (iii) Chemical Characteristics:

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

Identify specific pollutants, if known:

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

- □ 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:

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

### (i) Physical Characteristics:

- (a) General Wetland Characteristics:
  - Properties: Wetland size: acres Wetland type. Explain:.
    - Wetland quality. Explain:

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: Explain:

Surface flow is: Characteristics:

Subsurface flow: . Explain findings:  $\Box$  Dye (or other) test performed:

- (c) Wetland Adjacency Determination with Non-TNW:
  - □ Directly abutting
  - □ Not directly abutting
    - □ Discrete wetland hydrologic connection. Explain:
    - □ Ecological connection. Explain:
    - □ Separated by berm/barrier. Explain:

<sup>&</sup>lt;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

(d) Proximity (Relationship) to TNW

Project wetlands are Project waters are Flow is from:. Estimate approximate location of wetland as within the

floodplain.

### (ii) Chemical Characteristics:

Characterize wetland system, *e.g.*, water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.. Explain:

Identify specific pollutants, if known:

### (iii) Biological Characteristics. Wetland supports (check all that apply):

- □ Riparian buffer. Characteristics (type, average width):
- U Vegetation type/percent cover. Explain:
- □ Habitat for:
  - □ Federally Listed species. Explain findings:
  - □ Fish/spawn areas. Explain findings:
  - □ Other environmentally-sensitive species. Explain findings:
  - Aquatic/wildlife diversity. Explain findings:

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

All wetland(s) being considered in the cumulative analysis:

Approximately acres in total are being considered in the cumulative analysis.

### For each wetland, specify the following:

	, ~ <b>r</b> ,,				
Wetland #	Directly abuts	<u>Size (in acres)</u>	Wetland #	Directly abuts	<u>Size (in acres)</u>

Summarize overall biological, chemical and physical functions being performed:

### C. SIGNIFICANT NEXUS DETERMINATION

### Section III.C is not applicable to non-Jurisdictional Waters.

- 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.
- 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 all that apply*): Section III.D is not applicable to non-Jurisdictional Waters.

- **1.** TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area:
  - $\Box$  TNWs: linear feet width (ft), Or, acres.
  - U 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*):

 $\Box$  Tributary waters: linear feet width (ft).

- $\Box$  Other non-wetland waters: acres.
- Identify type(s) of waters

### 3. Non-RPWs<sup>8</sup> 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 in the review area (check all that apply):

□ Tributary waters: linear feet width (ft).

 $\Box$  Other non-wetland waters: acres.

Identify type(s) of waters:

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

- $\hfill\square$  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. Impoundments of jurisdictional waters.<sup>9</sup>

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).

# 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):<sup>10</sup> Section III.E is not applicable to non-Jurisdictional Waters where review for jurisdiction is not being requested.

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:

### Identify water body and summarize rationale supporting determination: .

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

 $\Box$  Tributary waters: inear feet width (ft).

Other non-wetland waters: acres.

Identify type(s) of waters: .

 $\Box$  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 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 <u>solely</u> on the "Migratory Bird Rule" (MBR).

Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:

<sup>&</sup>lt;sup>9</sup> To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

<sup>&</sup>lt;sup>10</sup> 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.

Other: (explain, if not covered above): There are numerous unnamed watercourses that ultimately discharge into Pahrump and are part of the many topographic "dips" that convery water into Pahrump basin. From the east side of the city of Pahrump, there are west slope ephemeral tributaries conveying storm events from the west slope of Charleston Peak / Spring Mountains, and from the west side of the city of Pahrump, several ephemeral tributaries convey storm events from the Resting Spring Range and Nopah Range (in Califonria). It is believed that most of the time storm events would cause the ephemeral tributaries from Spring Mountains to flow because this is the "rain" side of the mountain; the tributaries origination from the ranges in California are on the "shadow" side of the ranges and receive precipitation less frequently. It is also noted that it takes a major rain event to even cause water to flow in these tributaries because the first amounts of rainfall quickly infiltrate into the sandy soils. The slope is so great that when the soil is saturated, water will quickly flow downslope, into Pahrump. Witness of a short-duration (30 mintues) storm event, indicates that these ephemeral tributaries have intense hydrographic peaks and are no longer flowing 20-30 minutes after the rain stops. All rainfall flows into Pahrump and then quickly infiltrates into the sandy basin. All tributaries that flow into the closed basin are ephemeral. The basin is closed with no apparent interstate commerce connection. Water does not stay on the surface, either in the tributaries or the basin, long enough that it could provide use for migratory birds or most other wildlife. The portion of the tributary within the project boundary is about 3700 feet long, about 1-11/2 feet wide and channel's trough less than 6 inches below the adjacent surface. There is barely a defined bed and bank, just a low, non-constant / transitory area formed by one or more rain events flowing down a steep slope.

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 species, use of water for irrigated agriculture, using best professional judgment (check all that apply):

Non-wetland w	aters, i.e., rivers	, streams:	linear feet	width (ft).
Lakes/ponds:	acres.			
Other non-wetla	and waters:	acres. List	type of aquatic res	source: .
Wetlands:	acres.			

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 (check all that apply):

Non-wetland waters, <i>i.e.</i> , rivers, s	streams:	linear feet,	width (ft).	
Lakes/ponds: acres.				
Other non-wetland waters:	Pick List.	List type of aquatic	resource:	
Wetlands: acres.				

### SECTION IV: DATA SOURCES.

A. SUPP	<b>PORTING DATA.</b> Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and
requ	testea, 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.
[	USGS 8 and 12 digit HUC maps.
$\square$	U.S. Geological Survey map(s). Cite scale & quad name: Pahrump.
	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)
$\square$	Photographs:
	Aerial (Name & Date): provided by applicant and Virtual Maps (2006(?) satellite photo).
	Other (Name & Date): Surfacae photos take of the surrounding area just after a 30 July 2003 storm event.
	Previous determination(s). File no. and date of response letter:
	Applicable/supporting case law:
	Applicable/supporting scientific literature:
$\square$	Site visit and Date: July 30 2003.

Other information (please specify)

**B. ADDITIONAL COMMENTS TO SUPPORT JD**: As discussed above and as commonly seen in Nevada, there are numerous, transitory ephemeral (non-RPW) tributaries in the general area (there are several around the project site, but only one appears to be within the project boundary). It is noted that the topographic map, and the aerial photos, show several tributary features, however, as is often the case in Nevada, a "blue line" on a topographic map is often an ephemeral channel. Most of the "blue lines" identified on USGS maps are not evident on the ground- because of the transitory nature of these topographic features. The terminal basin, upon which much of the City of Pahrump sits, is geographically and hydrologically isolated from any other potential waters of the United States.

There is no interstate commerce connection or migratory bird uses associated with the degradation of this tributary or at the tributary's terminus. The tributaries and terminus basin do not have a functional relationship to the biological, physical, or chemical of water resources in the area. The area's ephemeral tributaries only flow when large storm events drop enough precipitation to, first, saturate the ground, then water flows down-slope into conveyance channels that often appear as erosion gullies. As the topography becomes flatter, the conveyance channels tend to dissipate and sheet flows form and the water continues to flow in the streets and undeveloped areas of Pahrump and quickly infiltrates into the ground. Water does not stay on the surface long enough to be important to most wildlife nor is the ground saturated long enough to support non-xeric vegetation, particularly near the conveyance channels. The water does not stay on the surface long enough to used for any recreational uses or be an attractant to interstate or foreign commerce..



Project Vicinity Maps

BLM-Las Vegas Office Unnamed Waterway July 2007 Corps Number: SPK-2007-764-NO Sheet 1 of 5 BLM-Las Vegas Office Unnamed Waterway July 2007 Corps Number: SPK-2007-764-NO Sheet 2 of 5

# Project Location Map



BLM-Las Vegas Office Unnamed Waterway July 2007 Corps Number: SPK-2007-764-NO Sheet 3 of 5

# Project Boundary Map







Sheet 4 of 5



All larger photos were taken on 30 Jul 2003. Approximate photo points shown on page 4. Storm event on west side of Spring Mountains lasted approximately 45 minutes.

The two bottom-most large photos were taken ~20 minutes after rain stopped falling, and the storm moved over Spring Mountains.





Smaller photos are same storm after it traversed Spring Mountains and caused flooding in Las Vegas. Flood event lasted approximately 4 hours.







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