

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

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): November 14, 2012.

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Sacramento District, Turquoise Ridge Mine Humboldt County, SPK-2012-00175-NO.

Name of water being evaluated on this JD form: JD 1 non-waters Drainages 1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 14, 15, 16, 17

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Nevada County: Humboldt City: Northeast of Winnemucca NV

Center coordinates of site (lat/long in degree decimal format): Lat: 41.1691 N, Long: -117-2013 W

Universal Transverse Mercator: 11 483105.91 455755.47.

Name of nearest waterbody: Kelly Creek to Humboldt River.

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: N/A No defined OHWM to indicate flows to any TNW.

Name of watershed or Hydrologic Unit Code (HUC): Black Rock desert-Humboldt Middle Humboldt 16040105.

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. List other JDs: Isolated Waters JD 2, and Jurisdictional Waters JD 3

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

Office (Desk) Determination. Date: April 4, 2012.

Field Determination. Date(s): N/A.

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: N/A.

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **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):¹

- TNWs, including territorial seas
- Wetlands adjacent to TNWs
- Relatively permanent waters² (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: N/A linear feet N/A width (ft) and/or N/A acres.

Wetlands: N/A acres.

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual, and Established by OHWM.

Elevation of established OHWM (if known): N/A.

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 project site is located in the Black Rock Desert-Humboldt. The project area is scattered with upland**

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.

drainage swales and washes with no defined OHWM. These swales dissipate prior to reaching other drainages or tributaries.

Drainages 1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 14, 15, 16, 17 are upland drainages which do not appear to carry sufficient flows to develop OHWM through erosion and sediment transportation. The drainages were evaluated in accordance with the information provided in A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States. All of these drainages were considered upland drainage swales with no OHWM or wetland characteristics and therefore would not be jurisdictional. These drainages do not have a physical chemical or biological connection to any TNW.

SECTION III: CWA ANALYSIS

- A. TNWs AND WETLANDS ADJACENT TO TNWs: NOT APPLICABLE
- B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS: NOT APPLICABLE
- C. SIGNIFICANT NEXUS DETERMINATION: NOT APPLICABLE

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE: NOT APPLICABLE

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):⁴

- 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: N/A.
- Other factors. Explain: N/A.

Identify water body and summarize rationale supporting determination: N/A

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

- Tributary waters: N/A linear feet N/A width (ft).
- Other non-wetland waters: N/A acres.
Identify type(s) of waters: N/A.
- Wetlands: N/A acres.

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).
- Other: (explain, if not covered above): Upland swales were identified as non jurisdictional and did not have defined bed or bank or OHWM.

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

⁴ 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 non-wetland waters: N/A acres. List type of aquatic resource: N/A.
- Wetlands: N/A acres.

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: Waters of The United States Jurisdictional Determination Turquoise Ridge Mine, Humboldt County, NV January 24, 2012.
- 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: N/A.
- Corps navigable waters' study: N/A.
- U.S. Geological Survey Hydrologic Atlas: _____.
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 11:24K: NV-DRY HILLS SOUTH
- USDA Natural Resources Conservation Service Soil Survey. Citation: N/A.
- National wetlands inventory map(s). Cite name: N/A.
- State/Local wetland inventory map(s): N/A
- FEMA/FIRM maps: N/A.
- 100-year Floodplain Elevation is: N/A (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): Provided by Applicant. Waters of The United States Jurisdictional Determination Turquoise Ridge Mine, Humboldt County, NV.
 - or Other (Name & Date): Provided by Applicant. Waters of The United States Jurisdictional Determination Turquoise Ridge Mine, Humboldt County, NV.
- Previous determination(s). File no. and date of response letter: N/A.
- Applicable/supporting case law: N/A.
- Applicable/supporting scientific literature: N/A.
- Other information (please specify): N/A.

B. ADDITIONAL COMMENTS TO SUPPORT JD: Refer to the information provided in the Waters of The United States Jurisdictional Determination Turquoise Ridge Mine, Humboldt County, NV dated January 24, 2012 prepared by JBR

Drainage 1 is located in the northwest portion of the survey area (Figure 6). This drainage does not have any OHWM indicators present (RF 1 and RF 2, Photos 1 and 2).

Drainage 2 is located in the north-central portion of the survey area east of Drainage 1 (Figure 6). This drainage does not have any OHWM indicators present (RF 3, Photo 3).

Drainage 3 is located in the northeast portion of the survey area (Figure 7). This drainage does not have any OHWM indicators present (RF 4, Photo 4).

Drainage 4 is located in the northeast portion of the survey area (Figure 7). This drainage does not have any OHWM indicators present (RF 5, Photo 5).

Drainage 5 is located in the north-central portion of the survey area (Figure 8). This drainage does not have any OHWM indicators present (RF 6, Photo 6).

Drainage 6 is located in the western portion of the survey area south of Drainage 1 (Figure 8). This drainage does not have any OHWM indicators present (RF 7, Photo 7). A culvert is located under the road that runs perpendicular to the drainage.

Drainage 7 is located southeast of Drainage 5, originating in the eastern portion of the survey area and traveling to the southeast (Figure 8). This drainage does not have any OHWM indicators present (RF 8, Photo 8).

Drainage 8 is located in the east-central portion of the survey area south of Drainage 7 (Figure 9). This drainage does not have any OHWM indicators present (RF 9 and RF 10, Photos 9 and 10).

Drainage 10 is located in the central portion of the survey area, south of Drainage 9 (Figure 9). This drainage does not have any OHWM indicators present (RF 13, Photo 13).

Drainage 12 is located south of Drainage 11 (Figure 10) and historically originated in Hanson Canyon. This drainage does not have any OHWM indicators present (RF 16, Photo 16).

Drainage 14 is located south of the Summer Camp Creek drainage and crosses east under a maintained road through a culvert (Figure 11). This swale collects runoff but does not have enough flow or slope to concentrate flows to cause scour and erosion. No indicators of an OHWM were present in Drainage 14 (RF 21, Photo 21).

Drainage 15 is located south of Drainage 14 and crosses east under a maintained road through a culvert (Figure 11). This drainage does not have any OHWM indicators present (RF 22, Photo 22).

Drainage 16 is located south of Drainage 15 and crosses east under a maintained road through a culvert (Figure 11). This drainage does not have any OHWM indicators present (RF 23, Photo 23).

Drainage 17 is located east of Drainage 13 in the southeast portion of the survey area (Figure 12). This drainage does not have any OHWM indicators present (RF 26, Photo 20 RF 26).

Additional Information from JD 2 for this project site:

The following waters, Drainage 13, Summer Camp Creek, and Julian Creek displayed sections with OHWM but only along a portion of their flow paths. The OHWM becomes diffuse and is no longer visible as these waters drain to lower elevations. There is no connection to any RPW from the lowest points of these drainages. These drainages are isolated with no connection to intrastate waters and have no interstate or foreign commerce connection. These drainages have an area of 5.04 acres or 82,438 linear feet and range in width from 1.75 feet to 3.5 feet wide. Distances between these areas are large enough that you would not consider this a jurisdictional drainage with a discontinuous OHWM. The OHWM for Drainage 13 ends approximately 0.50 miles from Summer Camp Creek. Summer Camp Creek OHWM also terminates prior to converging with Drainage 13. According to the USGS maps the drainages continue 8.5 miles and eventually terminate prior to reaching Kelly Creek or the Humboldt River. OHWMs were not observed beyond the points mapped in Figure 10. The end of the OHWM for Drainage 13 and Summer Camp Creek is approximately 12 miles from the Humboldt River. Julian Creek is similar to Drainage 13 and Summer Camp Creek with the OHWM terminating in the same area and approximately 12 miles north of the Humboldt River. These drainages do not flow to Kelly Creek. There are no defined swales or other drainage features downstream of the end point of the OHWMs of Drainage 13, Summer Camp Creek and Julian Creek. The lack of the OHWM features are visible in the photos attached to the Waters of the U.S. Jurisdictional Determination Turquoise Ridge Mine Humboldt County, NV

Based on the information provided there does not appear to be any physical, chemical, or biological connection between Drainage 13, Summer Camp Creek, Julian Creek and any TNW

Drainage 13 is located south of Drainage 12, originates in Hanson Canyon, and is currently diverted around mining disturbance (Figure 5). A concrete diversion channel directs water from and around the mine site into a new channel (RF 17, Photo 17), which continues to the southeast. Indicators of an OHWM in the drainage included an observed flow event, presence of drift and debris, and a natural line impressed on the bank. The channel averages 3.5 feet in width and continues for 25,944 feet, passing through two culverts, before entering an infiltration basin (Figure 10). There are no indicators of an OHWM in the channel below the infiltration basin (RF 18, Photo 18).

Summer Camp Creek is located south of Drainage 13 and continues southeast from the Osgood Mountains (Figure 10). Summer Camp Creek did not contain surface flow during the survey (RF 19, Photo 19). Indicators of an OHWM were present and included a natural line impressed on the bank, destruction of terrestrial vegetation, and a defined bed and bank. The channel averaged 2.75 feet wide and continued for 29,705 feet. The Summer Camp Creek drainage continues to the east through two culverts before indicators of an OHWM are no longer visible in the channel near a two-track road (RF 20, Photo 20).

Julian Creek is located south of Summer Camp Creek and continues southeast from the Osgood Mountains (Figure 11). Julian Creek did not contain surface flow during the survey (RF 24, Photo 24). Indicators of an OHWM were present and included a natural line impressed on the bank, destruction of terrestrial vegetation, and scour. The channel averaged 1.75 feet wide and continued for 26,789 feet. The Julian Creek drainage continues to the southeast before the channel terminates at an excavated stock pond (RF 25, Photo 25). There are no indicators of an OHWM past the earthen dam at the southern end of the stock pond ceasing any significant nexus to a jurisdictional drainage.

Additional Information from JD3 for this project site:

Drainages 9, 11, 18, Rabbit Creek, and Kelly Creek, originate in the Osgood and Snowstorm Mountains. Near this area there is approximately 8.27 inches of precipitation each year. This allows for sufficient seasonal flows which are great enough to develop a clear defined OHWM and a connection to Kelly Creek which eventually discharges to the Humboldt River. These drainages also appear to support a larger drained area than the other drainages identified in JD 1 and 2. This would create additional flows and improve the drainages ability to create a well defined OHWM. From the edge of the project site to the Humboldt River is approximately 12 miles. The Humboldt River flows directly into Rye Patch Reservoir. The nearest TNW from the edge of the project site is approximately 70 straight line miles.

Drainage 9 is to the south of Drainage 8 located in the central portion of the survey area (Figure 9). This drainage originates in the Osgood Mountains and continues east to southeast. Drainage 9 displays indicators of an OHWM including a natural line impressed on the bank and defined bed and bank after it passes through a culvert (RF 11, Photo 11) and continues southeast until it converges with Kelly Creek

(RF 12, Photo 12). During the time of the survey, tumbleweeds (Sisymbrium sp.) had blown into and covered portions of the drainage. The channel averages two feet in width and continues for 15,796 feet (Figure 9) until it reaches the Kelly Creek drainage.

Drainage 11 flows east to southeast in the central portion of the survey area originating from Rocky Canyon and connecting to Kelly Creek (Figure 5). Drainage 11 displays indicators of an OHWM including a natural line impressed on the bank and defined bed and bank after it passes through a culvert (RF 14, Photo 14) and continues southeast until it converges with Kelly Creek (RF 15, Photo 15). During the time of the survey, tumbleweeds had blown into and covered portions of the drainage. The channel averages two feet in width and continues for 16,887 feet (Figure 10) until it reaches the Kelly Creek drainage.

Drainage 18 is located to the east of Kelly Creek in the southeast portion of the survey area (Figure 5). This drainage originates in the Snowstorm Mountains and continues southwest. Drainage 18 displays indicators of an OHWM including scour, sediment sorting, and a natural line impressed on the bank after it passes through a culvert (RF 40, Photo 39). Drainage 18 continues southwest until it converges with Kelly Creek. The channel averages 2.5 feet in width and continues for 550 feet (Figure 12) until it reaches the Kelly Creek drainage.

Rabbit Creek is located east of Drainages 7 and 8 and flows south through the survey area (Figure 9). This creek contained standing water during the survey and had an average channel width of 5.5 feet (RF 27, Photo 27) that continues for 11,470 feet before converging with Kelly Creek (RF 28.).

Kelly Creek enters the east portion of the survey area southeast of Rabbit Creek (Figure 5) where it continues southwest toward the Humboldt River. This creek has a braided channel before entering the survey area (RF 29 and RF 30, Photos 28 and 29) where the channels did not contain surface water but had indicators of an OHWM including bed and bank definition, sediment sorting, vegetation absent, and a natural line impressed on the bank. Kelly Creek continues south through the survey area until the channel is directed into a weir where surface water is expressed (RF 31, Photo 30). Inside the survey area, the Kelly Creek drainage averages four feet in width and continues for 23,800 feet. Kelly Creek continues south of the survey area where the channel flows through another weir (RF 32, Photo 31). There was no surface water present from this point at the time of the survey, but sediment sorting, water staining, and bed and bank definition continued in the drainage. The Kelly Creek drainage continues to the southwest across Red House Flat (Figure 13) where the channel becomes altered/bladed for approximately 4,200 feet (RF 33, Photo 32) and is directed through a culvert and to the west (RF 34, Photo 33). The Kelly Creek drainage splits and continues southwest and west. The southwest branch is bladed and splits again, heading south and southwest. Both the south (RF 36, Photo 35) and southwest (RF 37, Photo 36) branches lose indicators of an OHWM in a meadow. The west branch continues into a ditch regulated by a flow gate (RF 35, Photo 34). The Kelly Creek ditch to the west of RF 35 continues through a large culvert and weir (RF 38, Photo 37) and meanders to the west and to the southwest where it intersects with the Humboldt River (RF 39, Photo 38 and Figure 13).