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 7, 2019

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Sacramento District, **Aurora Mine Project**, **SPK-2012-00661**

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: **Nevada** County/parish/borough: **Mineral County** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **38.2928354396398**°, Long. **-118.887339507902**°
Universal Transverse Mercator: **11 334950.72 4239991.41**
Name of nearest waterbody: Days Creek
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: East Walker River
Name of watershed or Hydrologic Unit Code (HUC): **East Walker, 16050301**
☐ 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 7, 2019
☐ Field Determination. Date(s):

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):** [1]
   ☐ 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: 10,695 linear feet, wide, and/or 12.96 acres.
   Wetlands: 2.71 acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Established by OHWM and 1987 delineation manual**
   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:

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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] 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.

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[4] 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: **Pick List**
   Drainage area: **375,040 acres**
   Average annual rainfall: inches
   Average annual snowfall: inches

   (ii) Physical Characteristics:
   (a) Relationship with TNW:
   ☐ Tributary flows directly into TNW.
   ☒ Tributary flows through **3** tributaries before entering TNW.

   Project waters are **10-15** river miles from TNW.
   Project waters are **2-5** river miles from RPW.
   Project waters are **10-15** aerial (straight) miles from TNW.
   Project waters are **2-5** aerial (straight) miles from RPW.
   Project waters cross or serve as state boundaries. Explain:

   Identify flow route to TNW[5]: Ephemeral drainages 1, 2 and 3 flow into perennial channel Days Creek, which flows to Bodie Creek, a perennial stream, which flows into Rough Creek, a perennial stream, which flows into the East Walker River.
   Tributary stream order, if known: Days Creek is a 2nd order stream.

   (b) General Tributary Characteristics (check all that apply):
   Tributary is: ☐ Natural
   ☐ Artificial (man-made). Explain:

[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.

☒ Manipulated (man-altered). Explain: Days Creek begins at Wetland 3 and is directed through a series of man-made stormwater ditches that were installed to convey stormwater around the facility before joining with Bodie Creek. Drainage 1 is culverted into the onsite pit lake and drains out the other side into Wetland 2 and connects wetland 2 to Wetland 3. Drainage 2 begins at a spring in Wetland 4 and has been re-directed around the mining facilities, through a culvert and into Wetland 3. Drainage 3 has been significantly disturbed and re-routed several times. The beginning of the drainage has been ditched to re-direct flows before it travels northeast along the western boundary of the mine, where it has been ditched again, before passing through a culvert and into a sediment basin.

Tributary properties with respect to top of bank (estimate):
Average width: feet 5 feet
Average depth: feet
Average side slopes: **Pick List.**

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:
Presence of run/riffle/pool complexes. Explain: none
Tributary geometry: **Relatively Straight**
Tributary gradient (approximate average slope): %

(c) Flow:
Tributary provides for: **Perennial flow**
Estimate average number of flow events in review area/year: **Pick List**
Describe flow regime:
Other information on duration and volume:

Surface flow is: **Discrete and confined.** Characteristics:

Subsurface flow: **unknown**. Explain findings:
☐ Dye (or other) test performed:

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):
☒ 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.[7] 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:

[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 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.
[7]Ibid.

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: The tributaries contain chemical remnants from historic and current mining activities that have the potential to be conveyed to the East Walker River in the occurrence of a significant precipitation event.
Identify specific pollutants, if known:

(iv) Biological Characteristics. Channel supports (check all that apply):
☒ Riparian corridor. Characteristics (type, average width): The drainages support herbaceous and shrub vegetation.
☐ 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 3
Wetland size: 1.20 acres
Wetland type. Explain: emergent
Wetland quality. Explain: disturbed by mining activities but still provides water quality functions
Project wetlands cross or serve as state boundaries. Explain: N/A. The wetlands are wholly within the state of Nevada

(b) General Flow Relationship with Non-TNW:
Flow is: **Perennial flow**. Explain: Wetlands persist and flow into Days Creek year-round.

Surface flow is: **Discrete and confined**
Characteristics:

Subsurface flow: **yes**. Explain findings: Wetland 3 is supported by shallow subsurface flow from Drainage 1.
☐ 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:

(d) Proximity (Relationship) to TNW
Project wetlands are **10-15** river miles from TNW.
Project waters are **10-15** aerial (straight) miles from TNW.
Flow is from: **Wetland to navigable waters.**
Estimate approximate location of wetland as within the **2-year or less** 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: The tributaries that support the wetlands contain chemical remnants from historic and current mining activities that have the potential to be conveyed to the East Walker River in the occurrence of a significant precipitation event.
Identify specific pollutants, if known:

(iii) Biological Characteristics. Wetland supports (check all that apply):
☐ Riparian buffer. Characteristics (type, average width):
☒ Vegetation type/percent cover. Explain: Wetland 3 supports Distichlis spicata (saltgrass), Juncus balticus (baltic rush), Lepidium latifolium (perennial pepperweed), Salix spp. (willow spp.), and several moss species. Vegetation at Wetland 2 consists of Rosa woodsii (Woods' rose), Lemna L. (duckweed), Carex spp. (sedge spp.), Chrysothamnus viscidiflorus (yellow rabbitbrush), and Artemesis tridentate (big sagebrush). egetation at Wetland 3 consists of Juncus balticus (baltic rush), Lepidium latifolium (perennial pepperweed), Typha L. (cattail), Poa spp. (bluegrass), and Chrysothamnus viscidiflorus (yellow rabbitbrush). Vegetation at Wetland 4 consists of Lemna L. (duckweed), Juncus balticus (baltic rush), Carex spp. (sedge spp.), Salix spp. (willow spp.), and several moss species.

☐ 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: **4**

Approximately 2.71 acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
Wetland 1 (N)	0.86	Wetland 2 (N)	0.60
Wetland 3 (Y)	1.20	Wetland 4 (N)	0.05

Summarize overall biological, chemical and physical functions being performed: The wetlands on site provide biodiversity through the support of several vegetation species which support wildlife. The wetlands also provide water quality functions by trapping sediments and other pollutants before waters continue downstream.

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: The Channel labeled Drainage 3 on attached map Figure 4 was demonstrated to flow along the western boundary of the facility, where it is ditched and passes through a culvert and into a sediment basin. During substantial rain events, the sediment basin overflows into Days Creek (RPW), which drains to Bodie Creek (RPW), which flows to Rough Creek (RPW), then into the East Walker River an interstate water (TNW). The findings of Redhorse Corporation clearly demonstrate that Drainage 3 is an ephemeral stream channel that flows into Days Creek and eventually to the East Walker River a TNW.

The project area consists of an active mine and has disturbed the hydrology regime. Drainage 3 is an ephemeral stream with an intermittent surface connection to the East Walker River. Drainage 3 (0.07 acres) indicates an OHWM for 3,044 feet within the survey area. The stream flows along the western boundary of the facility, where it is ditched and passes through a culvert and into a sediment basin. During substantial rain events, the sediment basin overflows into Days Creek (RPW), which drains to Bodie Creek (RPW), which flows to Rough Creek (RPW), then into the East Walker River an interstate water (TNW). Drainage 3 is located within an active mine that contains chemical remnants from historic and current mining activities that have the potential to be conveyed to the Walker River during substantial rain events.

Drainage 3 on attached map Figure 4 contains chemical remnants from historic and current mining activities that can be conveyed to the downstream TNW. Based on the above, Drainage 3 has a significant nexus to the East Walker River.

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: The Channels labeled Drainage 1 and 2 were demonstrated to flow directly to Days Creek, an RPW. Days Creek drains to Bodie Creek, which flows to Rough Creek, then into the East Walker River an interstate water (TNW). The findings of Redhorse Corporation clearly demonstrate that Drainage 1 and 2 are ephemeral stream channels that flows into Days Creek and eventually to the East Walker River a TNW.

   Wetland 1 and 2 each share a direct hydrologic connection with Drainage 1. Drainage 1 flows through Wetland 1 into pit lake, then into Wetland 2 (0.60 acres). Drainage 1 then flows from Wetland 2 into Wetland 3 (1.2 acres). Wetland 4 (0.5 acres) has a direct hydrologic connection to Drainage 2. The wetland is supported by a spring which discharges water into the wetland and supplies a surface flow to Drainage 2. All wetlands are located within ephemeral drainages which flow downstream to Days Creek. These wetlands are located within an active mine that contains chemical remnants from historic and current mining activities that have the potential to be conveyed to the Walker River during substantial rain events.

   Drainage 1, its abutting wetlands Wetland 1 and 2, and Drainage 2 and its abutting wetland Wetland 4 (subject channel and wetlands) on attached maps Figure 4 have a significant effect on the physical, chemical and biological integrity of the East Walker River. The subject channels convey chemical remnants from historic and current mining activities to the downstream TNW. The subject wetlands reduce runoff and provide infiltration thereby regulating and reducing flow volumes and turbidity delivered downstream to the East Walker River. This process reduces transport of pollutants from the headwaters to the downstream TNW.

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):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet, wide, 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 wide.
   - ☐ 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. Drainage 1, 2 and 3 flow into Days Creek. Days Creek drains to Bodie Creek, which flows to Rough Creek, then into the East Walker River an interstate water (TNW).

   Provide estimates for jurisdictional waters within the review area (check all that apply):
   - ☒ Tributary waters: 8,871 linear feet, 3 wide.
   - ☒ Other non-wetland waters: 12.47 acres.
     Identify type(s) of waters: Pit Lake (impoundment of drainage 1)

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

[8]See Footnote # 3.

directly abutting an RPW: The findings of Redhorse Corporation clearly demonstrate that Wetland 3 borders and is directly touching (i.e., no breaks in connection) Days Creek with no barriers.

☐ 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: 1.51 acres.

7. **Impoundments of jurisdictional waters.[9]**
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):[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:

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet, wide.
☐ 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 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, if not covered above):

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):

[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.***

☐ Non-wetland waters (i.e., rivers, streams): linear feet, wide.
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource:
☐ 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.e., rivers, streams): linear feet, wide.
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource:
☐ Wetlands: 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: Aquatic Resource Delineation SPK2012-00661 Aurora Mine, Figures 1-5, prepared by Redhorse Corporation, May 31, 2019
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant. Waters of the United States Jurisdictional Determination Esmerelda Project – Antler Peak Gold Inc Mineral County, Nevada, Appendix B and D, prepared by JBR Environmental Consulting Inc., June 25, 2012.
☒ 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.
☒ U.S. Geological Survey map(s). Cite scale & quad name: **1:24K; Aurora**
☐ 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 Geodectic Vertical Datum of 1929)
☒ Photographs: ☐ Aerial (Name & Date):
or ☒ Other (Name & Date): Waters of the United States Jurisdictional Determination Esmerelda Project – Antler Peak Gold Inc Mineral County, Nevada, Appendix A and C, prepared by JBR Environmental Consulting Inc., June 25, 2012.
☒ Previous determination(s). File no. and date of response letter: SPK-2012-00661, October 24, 2013.
☐ Applicable/supporting case law:
☐ Applicable/supporting scientific literature:
☐ Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Drainage 1 (0.17 acres) originates in a spring located off site, but does not exhibit an OHWM until it enters the survey area. Within the survey area, the drainage flows into Wetland 1 and flows through a culvert into a historic Pit Lake where it has been impounded. On the opposite side of the lake, the drainage begins again and flows through a second culvert and into Wetland 2. From Wetland 2, Drainage 1 flows into Wetland 3. Drainage 1 maintains an OHWM for 4,897 feet within the survey area. Drainage 2 (0.04 acres) originates in a spring at Wetland 4 and drains into Wetland 3. Drainage 2 flows ephemerally and exhibits an OHWM for 930 feet within the project area.

The onsite Pit Lake receives Drainage 1 through a culvert. A dam was constructed in the northwest corner of the lake impounding drainage 1 to hold back flows in drainage 1, however flows continue downstream of impoundment via seepage thru and under the dam.

Wetland 1, Wetland 2, and Wetland 3 each share a direct hydrologic connection with Drainage 1. Wetland 1 (0.86 acres) was created from a haul road that crosses Drainage 1 and impounds the natural flow, causing water to accumulate behind the road. Wetland 2 (0.60 acres) and Wetland 3 (1.2 acres) are also supported by surface flows from Drainage 1. Wetland 3 is also supported by a historic spring located south of the tailings pond within the survey area. Wetland 4 (0.05 acres) has a direct hydrologic connection to Drainage 2. The wetland is supported by a spring with discharged water into the wetland and supplies a surface flow to Drainage 2.

Drainage 3 (0.07 acres), which flows ephemerally, begins in a man-made ditch, where it has been re-directed to flow along the western boundary of the project area, where it is ditched again and flows through a culvert and into a sediment basin. During

substantial rain events, the sediment basin overflows into Days Creek. Drainage 3 exhibits an OHWM for 3,044 feet within the survey area.

Days Creek is a perennial stream and flows to the perennial RPW's downstream as indicated by the OHWM and matted vegetation and silt screens within the drainage. Days Creek, 1,824 feet within the survey area (0.21 acres) begins where surface water leaves Wetland 3 and is directed through a series of man-made stormwater ditches that were installed to convey stormwater around the facility before joining with Bodie Creek, a perennial RPW. The stream maintains an OHWM directly into Bodie Creek, a perennial RPW and tributary of Rough Creek (RPW), which flows into the East Walker River, which is a navigable-in-fact, Traditionally Navigable Water at the confluence of Rough Creek and Walker River.

There are 0.28 acres of ephemeral stream channel (Drainage 1, 2 and 3) and 2.71 acres of wetlands (wetlands 1, 2, 3, and 4) directly abutting these drainages within the survey area that drain into Days Creek. There are 0.21 acres of RPW (Days Creek). The onsite waters contain chemical remnants from historic and current mining activities that have the potential to be conveyed thru the tributary system into the Walker River, the nearest TNW, during substantial rain events. Days Creek, its headwater tributaries and adjacent wetlands have a significant nexus to the East Walker River.

The East Walker River was used to float logs to the saw mills in the early 1860's. The East Walker River is currently used for recreational navigation in the form of rafting or kayaking and is an interstate water of the U.S.