

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

Dec. 24, 2013

**SECTION I: BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):** Dec. 24, 2013

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER:** Sacramento District, Kennecott Tailings Expansion, SPK-2009-01213-UO.  
Name of water being evaluated on this JD form: Clarification Canal and Clarification Canal Wetlands; Toe Ditch and Toe Ditch Wetlands; Historic Toe Ditch Wetlands (Jones Spring Area)

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

State: UT County: Salt Lake City: Magna  
Center coordinates of site (lat/long in degree decimal format): Lat: 40.7189 N, Long: 112.0874 W  
Universal Transverse Mercator: \_\_\_\_\_

Name of nearest waterbody: Great Salt Lake.  
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: N/A.  
Name of watershed or Hydrologic Unit Code (HUC): 16020204.

- 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: SPK-2009-01213 JD1, JD2, JD3, Playa Area/Jones Spring, Adamson Spring.

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

- Office (Desk) Determination. Date: Dec 24, 2013.  
 Field Determination. Date(s): September 6, 2011, November 22, 2010.

**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 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):<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: \_\_\_\_\_ linear feet \_\_\_\_\_ width (ft) and/or \_\_\_\_\_ acres.  
Wetlands: \_\_\_\_\_ acres.

**c. Limits (boundaries) of jurisdiction based on: Pick List and Pick List**

Elevation of established OHWM (if known): \_\_\_\_\_.

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

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.  
Explain: **The Historic Toe Ditch Wetlands near Jones Spring, the Toe Ditch and the Clarification Canal are part of Kennecott Utah Copper's (KUC) industrial process water system. A system of drains and channels that are pumped**

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

<sup>2</sup> For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

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

uphill to the Copperton Concentrator, approximately 9 miles to the south. The industrial process water system is used to process ore and to transport tailings, the waste product of mineral extraction, to the decant pond located on top of the North Tailing Impoundment. From the decant pond, the water either evaporates, is pumped to the clarification canal, returns to the toe drain, or is pumped from the decant pond to Outfall 012 which discharges to the Great Salt Lake, the closest TNW. Although the Historic Toe Ditch Wetlands near Jones Spring, the Clarification Canal and the Toe Ditch, along with the wetland associated with them, potentially drain to the Great Salt Lake the Toe Ditch and Clarification Canal were constructed as part of a permitted discharge (SPK-1994-50301) to construct the North Impoundment in 1996 or were constructed as part of the historic tailings impoundment prior to the Clean Water Act. The wetlands associated with the Toe Ditch and Clarification Canal and historic Toe Ditch receive hydrology only through rainfall and from the industrial process water system. These aquatic features are all at a higher elevation (approx. 30-50' higher) than any surrounding jurisdictional waters or any natural water source. If the tailings operation ceased, these aquatic features would lose their artificial hydrology and would revert to being uplands. Therefore, the normal circumstances of these areas are upland and not jurisdictional waters.

**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):<sup>4</sup>

- 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 \_\_\_\_\_ width (ft).
- Other non-wetland waters: \_\_\_\_\_ acres.  
Identify type(s) of waters: \_\_\_\_\_.
- Wetlands: \_\_\_\_\_ 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): These are artificial waters that would dry up and revert to uplands if industrial processes and pumping of water ceased.

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): \_\_\_\_\_ linear feet \_\_\_\_\_ width (ft).
- Lakes/ponds: \_\_\_\_\_ acres.
- Other non-wetland waters: \_\_\_\_\_ acres. List type of aquatic resource: \_\_\_\_\_.
- Wetlands: \_\_\_\_\_ acres.

<sup>4</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.

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 \_\_\_\_\_ width (ft).
- Lakes/ponds: \_\_\_\_\_ acres.
- Other non-wetland waters: \_\_\_\_\_ acres. List type of aquatic resource: \_\_\_\_\_.
- Wetlands: \_\_\_\_\_ acres.

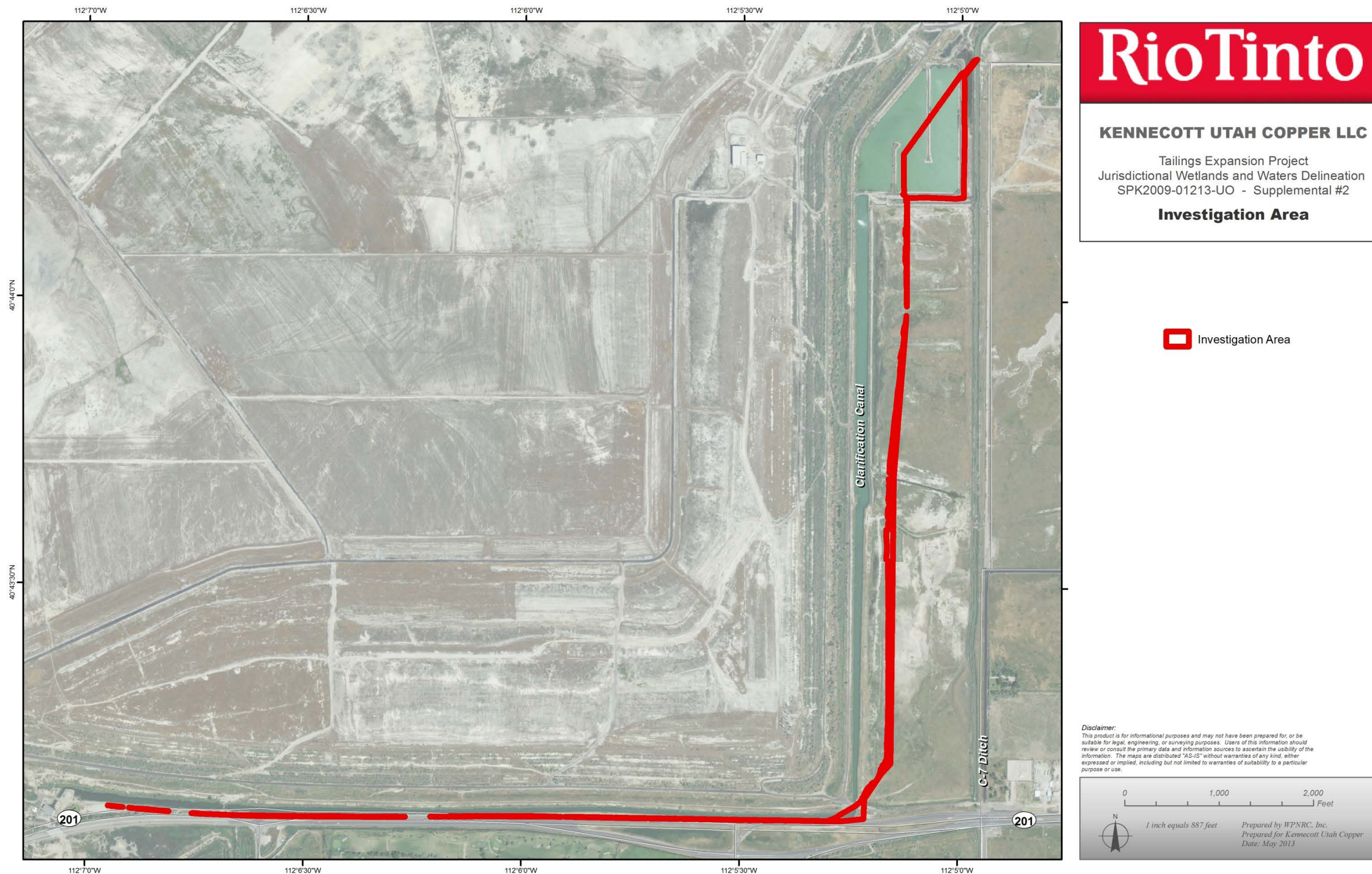
**SECTION IV: DATA SOURCES.**

**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):**

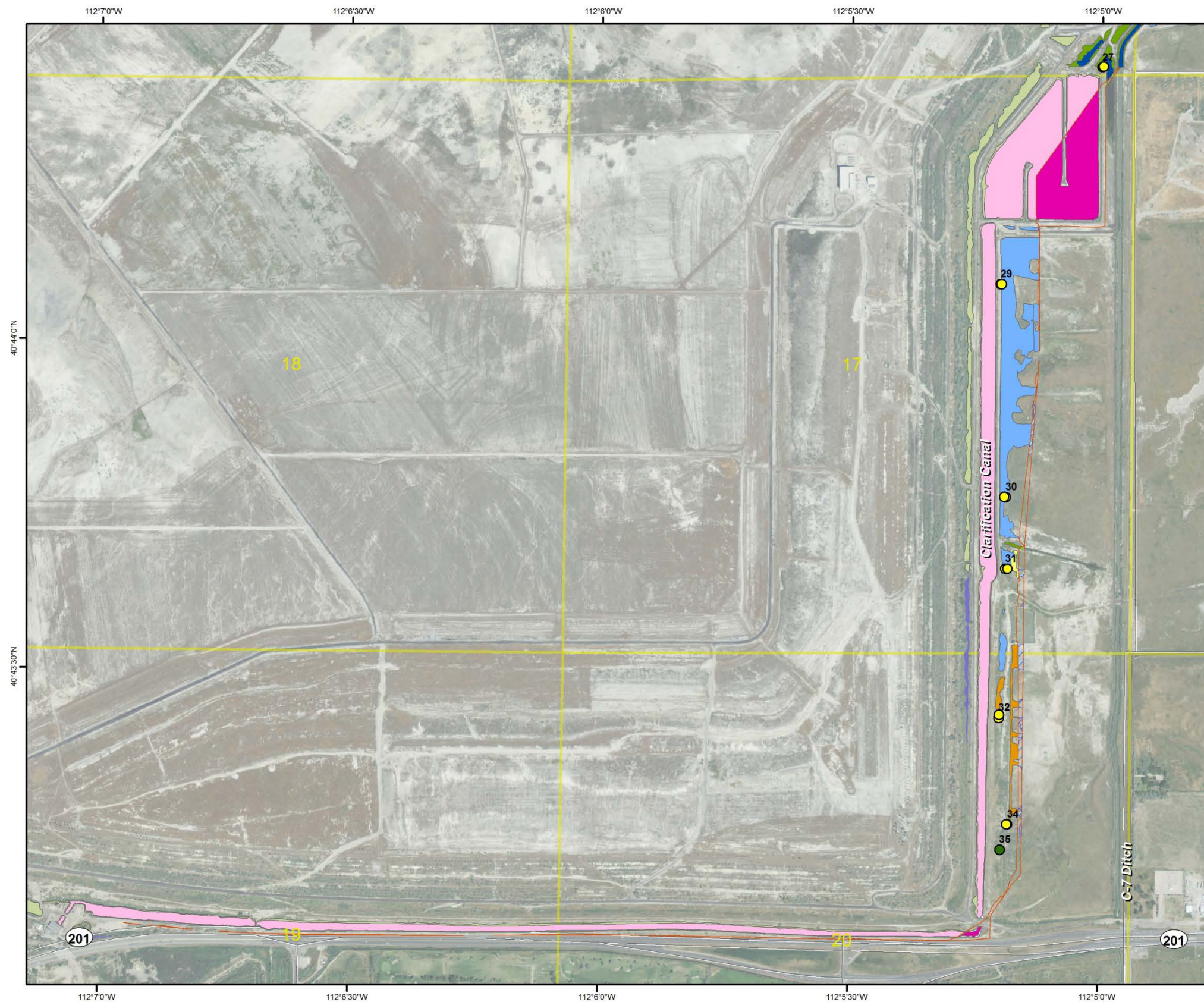
- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Wetland Delineation by WP Natural Resources Consulting, Inc. dated July 2011 and received July 8, 2011; supplemental #2 received June 6, 2013.
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - 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.
- U.S. Geological Survey map(s). Cite scale & quad name: FARNSWORTH PEAK AND MAGNA 7.5-Minute Quadrangles
- USDA Natural Resources Conservation Service Soil Survey. Citation: Included in 2011 Supplemental JD.
- National wetlands inventory map(s). Cite name: FWS Wetlands Mapper.
- State/Local wetland inventory map(s): \_\_\_\_\_
- FEMA/FIRM maps: \_\_\_\_\_.
- 100-year Floodplain Elevation is: \_\_\_\_\_ (National Geodetic Vertical Datum of 1929)
- Photographs:  Aerial (Name & Date): Included in 2011 Supplemental JD  
or  Other (Name & Date): Included in 2011 Supplemental JD.
- 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: \* Update December 24, 2013: Kennecott submitted an updated wetland delineation on June 6, 2013. The updated delineation included an additional 16.56 acres of the proposed Tailings expansion facility. The additional area is a thin strip of land adjacent to the eastern and southern borders of the clarification canal. The additional area contains an additional 0.59-acre of non jurisdictional waters connected to the clarification canal.**

1.6. Figure 2: TEP Supplemental Delineation #2 Investigation Area



3.1.4. Figure 3: Vegetation Communities in TEP Supplemental Delineation #2 Investigation Area



**Rio Tinto**

**KENNECOTT UTAH COPPER LLC**

Tailings Expansion Project  
 Jurisdictional Wetlands and Waters Delineation  
 SPK2009-01213-UO - Supplemental #2

**Vegetation Types**

- Investigation Area
- Data Points**
- Upland and Wetland
- Upland Only
- Wetlands (Verified - SPK 2009-01213-UO)**
- █ Industrial Process Water (Non-Jurisdictional)
- █ Waters of the US (Jurisdictional)
- █ Emergent (Jurisdictional)
- █ Phragmites (Jurisdictional)
- █ Phragmites (Non-Jurisdictional)
- █ Tamarisk (Jurisdictional)
- █ Tamarisk (Non-Jurisdictional)
- █ Saline Playa (Jurisdictional)
- Wetlands (Non-Verified)**
- █ Industrial Process Water
- █ Phragmites (Non-Jurisdictional)
- █ Phragmites
- █ Emergent
- █ Open Water
- PLSS Section Lines

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0 1,000 2,000 Feet

1 inch equals 887 feet

Prepared by WPNRC, Inc.  
 Prepared for Kennecott Utah Copper  
 Date: May 2013

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**U.S. Army Corps of Engineers**

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**B. DISTRICT OFFICE, FILE NAME, AND NUMBER:** Sacramento District, Kennecott Tailings Expansion, SPK-2009-01213-UO.  
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Field Determination. Date(s): September 6, 2011, November 22, 2010.

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  - which are or could be used for industrial purposes by industries in interstate commerce.
  - Interstate isolated waters. Explain: \_\_\_\_\_.
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Identify water body and summarize rationale supporting determination: \_\_\_\_\_

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

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Identify type(s) of waters: \_\_\_\_\_.
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- Wetlands: \_\_\_\_\_ acres.

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<sup>4</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.

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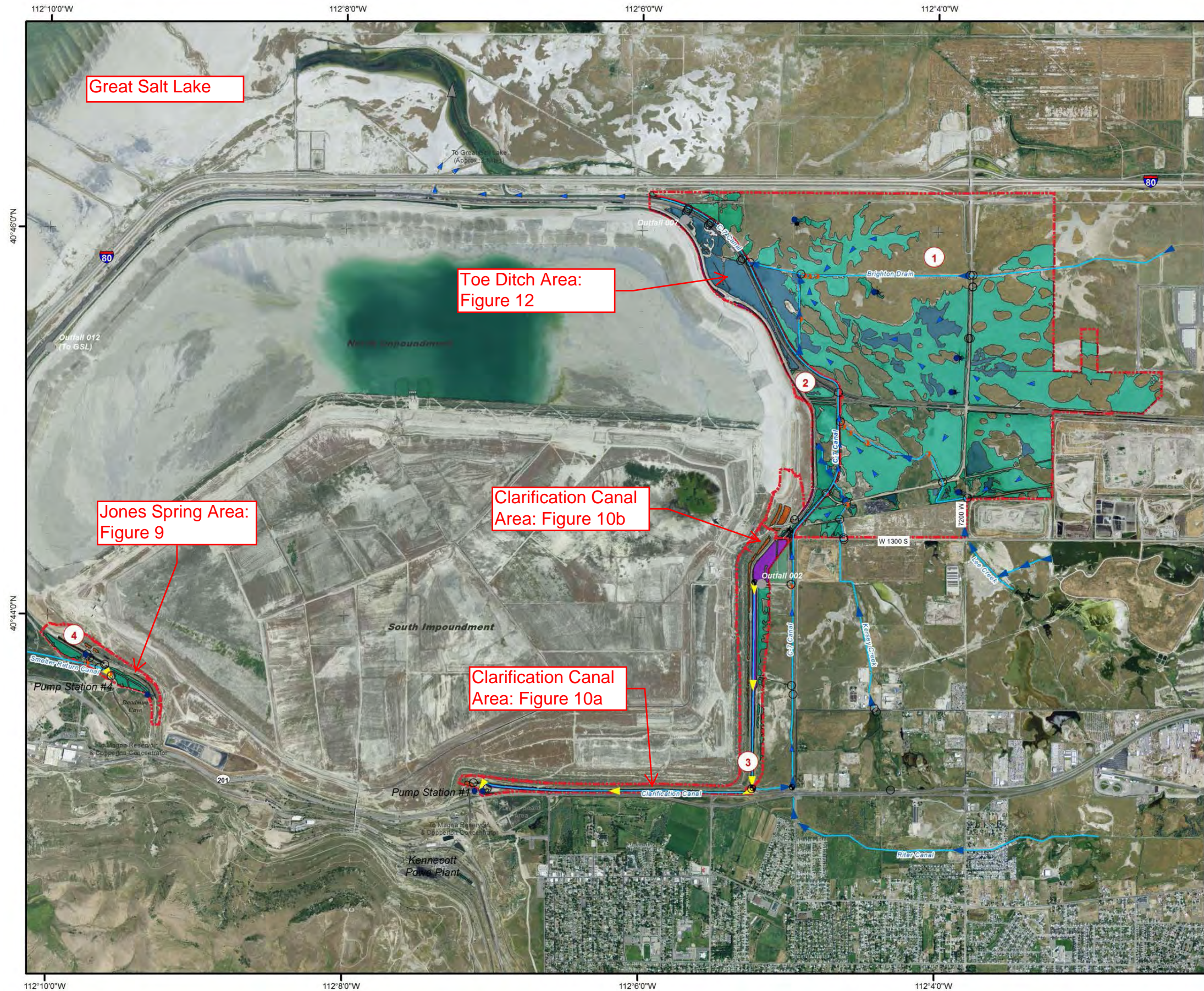
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**A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):**

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  - Office concurs with data sheets/delineation report.
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- 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: FARNSWORTH PEAK AND MAGNA 7.5-Minute Quadrangles
- USDA Natural Resources Conservation Service Soil Survey. Citation: Included in 2011 Supplemental JD.
- National wetlands inventory map(s). Cite name: FWS Wetlands Mapper.
- State/Local wetland inventory map(s): \_\_\_\_\_
- FEMA/FIRM maps: \_\_\_\_\_.
- 100-year Floodplain Elevation is: \_\_\_\_\_ (National Geodetic Vertical Datum of 1929)
- Photographs:  Aerial (Name & Date): Included in 2011 Supplemental JD  
or  Other (Name & Date): Included in 2011 Supplemental JD.
- 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: \_\_\_\_\_.**





**Kennecott Utah Copper LLC**

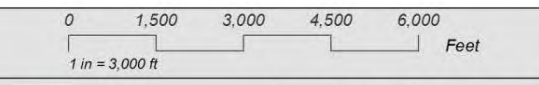
**2012 Supplemental  
Jurisdictional Delineation**

**Figure 8**

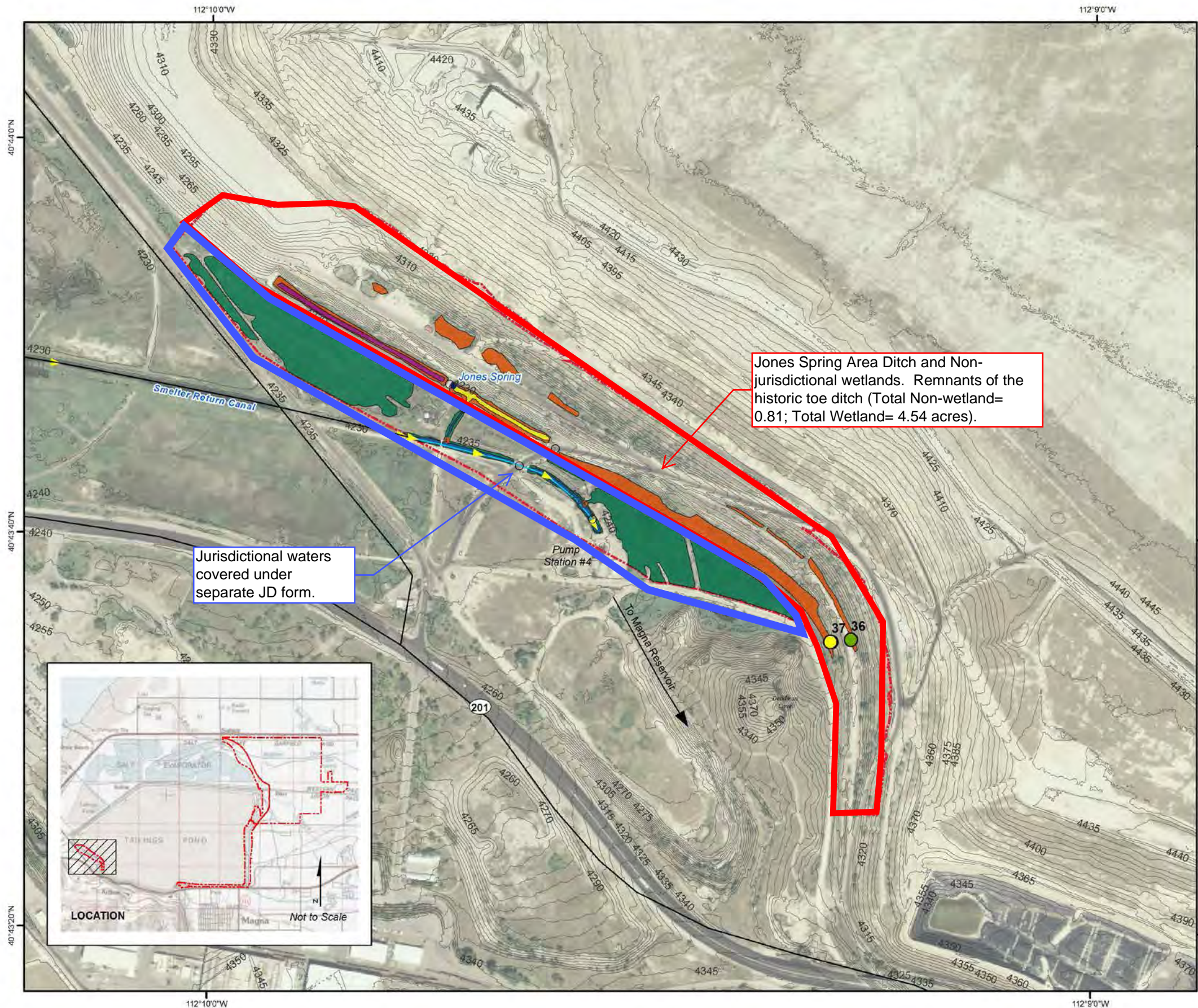
**Water Management**

- Analysis Area
- ① Playa Analysis Area
- ② Toe Ditch Road Analysis Area
- ③ Clarification Canal Analysis Area
- ④ Jones Spring Analysis Area
- Outfall
- Spring
- Culvert
- Breach
- Headgate
- Well Head
- Stream/Ditch
- Industrial Process Water
- Direction of Flow
- Jurisdictional Wetland
- Non-Jurisdictional Wetland
- Non Jurisdictional Water
- Waters of the US
- Industrial Process Water

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Prepared By: WPNRC Inc.  
Prepared For: Kennecott Utah Copper  
Date: April 2012



**Kennecott Utah Copper LLC**

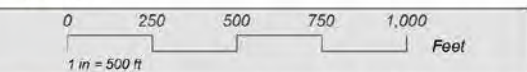
**2012 Supplemental  
Jurisdictional Delineation**

**Figure 9**

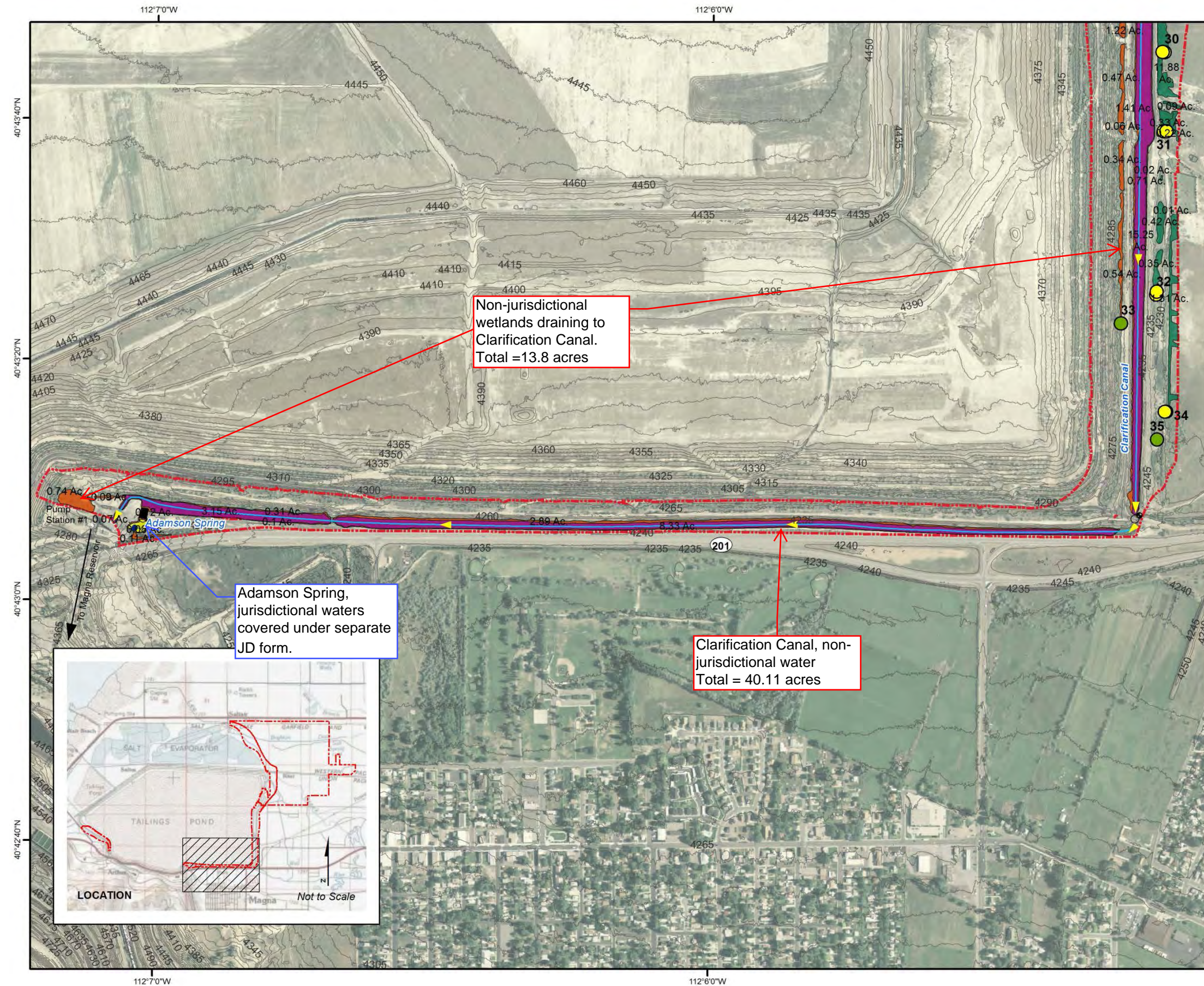
**Jones Spring Analysis Area**

- Analysis Area
- Industrial Process Water
- Culvert
- Breach
- Jurisdictional Wetlands
- Non-Jurisdictional Wetlands
- Non-Jurisdictional Water
- Waters of the US
- Industrial Process Water
- Spring
- Data Point**
- Upland and Wetland
- Upland Only
- Wetland Only

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Prepared By: WPNRC Inc.  
Prepared For: Kennecott Utah Copper  
Date: April 2012



**Kennecott Utah Copper LLC**

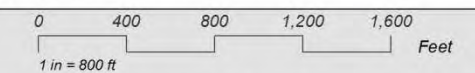
**2012 Supplemental  
Jurisdictional Delineation**

**Figure 10**

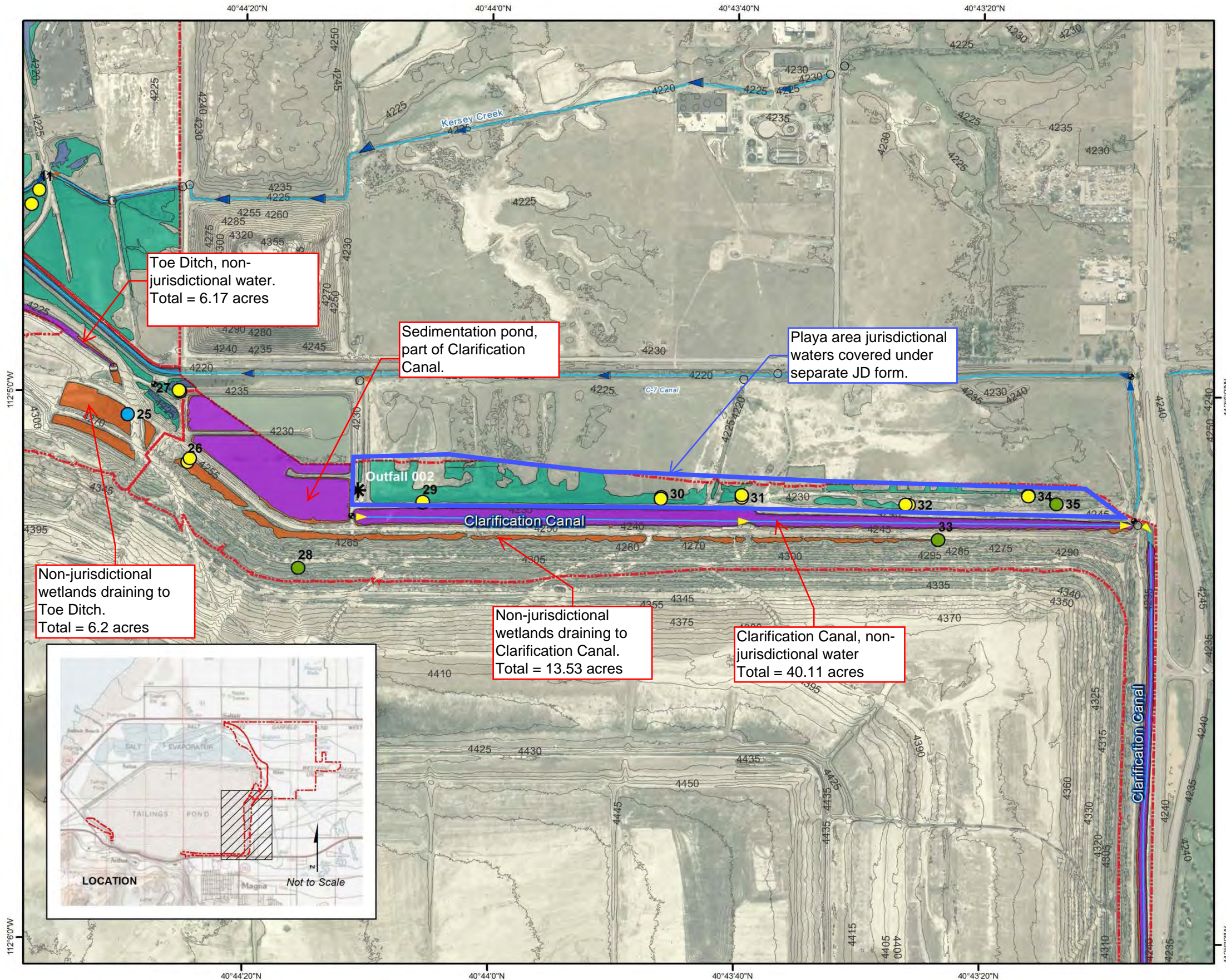
**Clarification Canal Analysis Area - W**

- Analysis Area
- Jurisdictional Wetlands
- Non-Jurisdictional Wetlands
- Non-Jurisdictional Water
- Waters of the US
- Industrial Process Water
- Spring
- Culvert
- Breach
- Headgate
- Industrial Process Water
- Underground Pipe
- Data Point**
- Upland and Wetland
- Upland Only
- Wetland Only
- Direction of Flow

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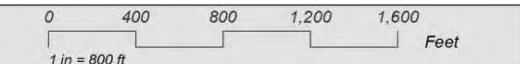
**2012 Supplemental  
Jurisdictional Delineation**

**Figure 11**

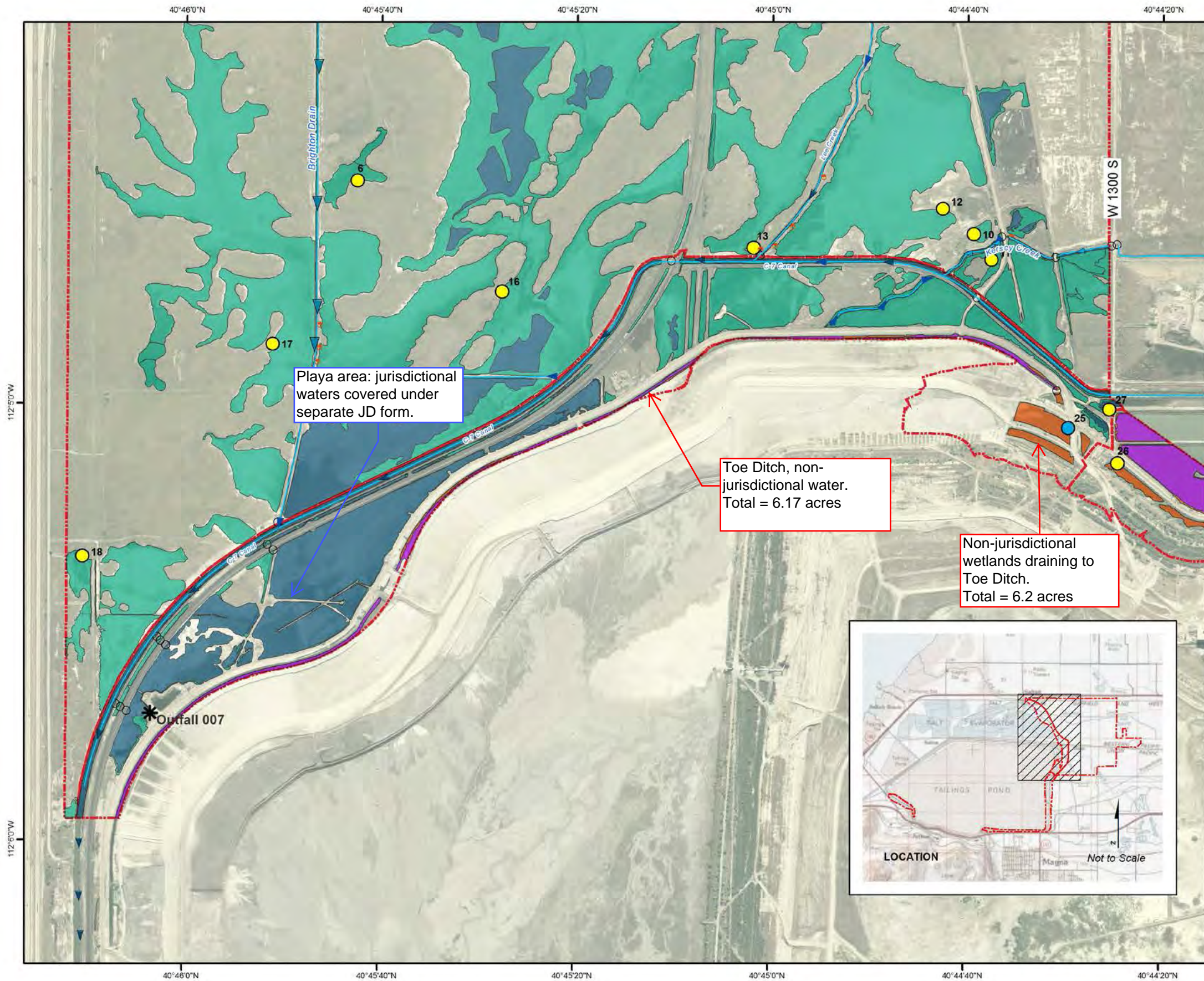
**Clarification Canal Analysis Area - E**

- Analysis Area
- Jurisdictional Wetland
- Non-Jurisdictional Wetland
- Waters of the US
- Industrial Process Water
- Stream/Ditch
- Industrial Process Water
- Culvert
- Breach
- Headgate
- Outfall
- Data Point**
- Upland and Wetland
- Upland Only
- Wetland Only
- Direction of Flow

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Prepared By: WPNRC Inc.  
Prepared For: Kennecott Utah Copper  
Date: April 2012



**Kennecott Utah Copper LLC**

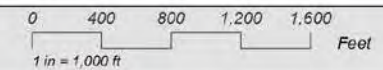
**2012 Supplemental  
Jurisdictional Delineation**

**Figure 12**

Toe Ditch Analysis Area

- Analysis Area
- Jurisdictional Wetland
- Non-Jurisdictional Wetland
- Non Jurisdictional Water
- Waters of the US
- Industrial Process Water
- Stream/Ditch
- Industrial Process Water
- Culvert
- Breach
- \* Outfall
- Data Point**
- Upland and Wetland
- Upland Only
- Wetland Only
- ▶ Direction of Flow

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