SHPO - 2017-0336 (135969)
ARIZONA STATE HISTORIC PRESERVATION OFFICE

NHPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

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ARIZONA STATE HISTORIC PRESERVATION OFFICE

March 15, 2017

Kathryn Leonard
State Historic Preservation Officer
Arizona State Parks State Historic Preservation Office
1300 W. Washington Street
Phoenix, AZ 85007

Re: Consultation under Section 106 of the National Historic Preservation Act (NHPA) Regarding the UIC Permit for the Gunnison Copper Project

Dear Ms. Leonard:

I am writing to initiate consultation under Section 106 of the National Historic Preservation Act (NHPA) on a proposed Gunnison Copper Project facility (the "Project") located along Interstate 10, approximately 1.5 miles south east of the Johnson Camp Mine (JCM), northeast of Dragoon, in Cochise County, Arizona. The United States Environmental Protection Agency, Region IX (EPA) is evaluating an Underground Injection Control (UIC) permit application from Excelsior Mining Arizona, Inc. (Excelsior) for a proposed in-situ copper recovery mine called the Gunnison Copper Project. Issuance of a federal permit is considered a federal undertaking, and therefore, EPA is required to meet the statutory responsibilities under Section 106 of the NHPA. Prior to making a UIC permit decision, EPA is reviewing and considering any potential effects of the undertaking on historic properties listed or eligible for listing in the National Register of Historic Places in compliance with 40 CFR 144.4(b), Section 106 of the NHPA and its implementing regulations at 36 CFR part 800.

As further described below, EPA is proposing a finding of no historic properties affected based on a determination that there are no historic properties present within the area of potential effects except for one AZ AA:16:377 (ASM) for this undertaking. The site, State Route 86, is within the current right-of-way of I-10 and will not be affected. We provide a description of the undertaking, including the area of potential effects, a description of the steps taken to identify historic properties within the area of potential effects, and the basis for EPA's proposed determination that no historic properties are affected. EPA requests your consideration and concurrence, or comments, on this matter.

Project Description

Excelsior submitted to EPA an application requesting an area Class III UIC permit to install a wellfield consisting of injection and recovery wells, hydraulic control wells, observation and monitoring wells in an area of approximately 192 acres for in-situ recovery of copper. The in-situ recovery (ISR) method involves injecting low-pH solutions into the orebody through an array of injection wells and extracting copper-bearing solutions (pregnant leach solution or PLS) through an array of interspaced recovery wells. The proposed project under evaluation by EPA will be implemented in three stages over an operational life of 23 years. Stage 1 will be years 1-10, Stage 2 will be years 11-13, and Stage 3 will be years 14 -20. Multiple mining blocks will be active during each stage increasing production as each stage is implemented. As mining of individual blocks is completed, the mining operations will be followed by an aquifer rinsing period while mining proceeds to subsequent blocks. A post production aquifer rinsing period for the last mining block is anticipated to be completed by year 23.

Mining solutions will initially (Stage 1) be pumped to, and processed at, the company's adjacent JCM. Later Stages will require additional facilities to be built at the Project site. At the surface, existing process solution impoundments at JCM will be used during Stage 1 to hold process solutions. Additional impoundments will be constructed south of the freeway during Stages 2 and 3. Copper will be removed from the PLS at the JCM solvent extraction-electrowinning (SX-EW) plant, producing pure copper cathode. After copper has been removed from the PLS, the remaining raffinate (barren solution), is re-acidified and pumped back to the ISR wellfield to continue the leaching cycle. Additional SX-EW capacity will be built to the east of the ISR wellfield for Stages 2 and 3. Post mining, the wellfield subsurface will be rinsed to meet permit conditions and after appropriate monitoring will be closed according to relevant state and federal regulations.

Project facilities for Stage 1 (see Figure 1) include the following (items in bold are pre-existing):

- Years 1-10 ISR wellfield with related pipes, power supply and header houses (small manifold and instrumentation control rooms within the ISR wellfield)
- Interconnecting pipe line corridor ("pipe-corridor") from the ISR wellfield to the existing **Johnson Camp Mine SX/EW processing facility, solution ponds, power supply and related infrastructure, roads and office buildings.**
- Pipe conduit under the I-10 freeway.
- Drain-down pond at the low point of the pipe-corridor to collect and temporarily hold solutions contained in the pipes should pipe maintenance be required.
- Access road and guard house on the southwestern edge of the ISR wellfield.
- Evaporation pond located east of the ISR wellfield and on the south side of the 1-10 freeway.

Project facilities for Stages 2 and 3 (see Figure 2) include the following (items in bold are pre-existing or are included in Stage 1 above):

- Expanded ISR wellfield with related pipes, power supply and header houses.
- **Interconnecting pipe line corridor ("pipe-corridor") from the ISR wellfield to the existing Johnson Camp Mine SX/EW processing facility, solution ponds, power supply and related infrastructure, roads and office buildings.**
- **Pipe conduit under the I-10 freeway.**
- **Drain-down pond at the low point of the pipe-corridor to collect and temporarily hold solutions contain in the pipes should pipe maintenance be required.**
- **Access road and guard house on the south western edge of the ISR wellfield.**

Area of Potential Effect

The Area of Potential Effect (APE), identified pursuant to 36 CFR §800.4, is the undeveloped area affected by the proposed project including portion of Section 31 of Township 15 South, Range 23 East and a portion of Section 36 of Township 15 South, Range 22 East, Gila and Salt River Baseline and Meridian. The APE also includes part of the adjacent JCM subject to proposed infrastructure improvements next to Burro Pit from the new powerlines to the existing SX/EW Plant facilities in consideration of potential impacts during construction and operation of Stage 1. JCM is located in a portion of Sections 25 and 26 of Township 15 South, Range 22 East, Gila and Salt River Baseline and Meridian. See the enclosed map of the outlined APE.

Steps Taken to Identify Historic Properties

EPA has reviewed current and past surveys compiled by the applicant (see the Cultural Resources Inventory Reports by West Land Resources, enclosures). These reports outline archaeological sites for the main project area and previously recorded sites within the vicinity of the main project area, including the JCM. Although the reports indicate the APE does not contain any archaeological sites that are recommended as eligible for inclusion in the

National Register of Historical Places (NRHP), we found that Cultural Resources Report 2017-03 does identify some segments of State Route 86 (AZ AA:16:377) as NRHP-eligible under Criterion A. *See* Cultural Resources Report 2017-03, Table A.2 and Report No. 101981, page 7. However, this segment of State Route 86 appears to have been replaced by I-10 in the Project area, and thus would not be affected by the Project.

Proposed Finding of No Historic Properties Affected

Pursuant to our consideration of the Cultural Resources Inventory Reports, EPA believes that additional investigation of cultural resources in the APE is not necessary and we propose a determination that no historic properties are present or affected. EPA requests your concurrence of the APE, the adequacy of the survey information to identify historic properties within the APE, and our proposed determination.

Please provide a response within 30 days with your concurrence or comments to the following address:

Nancy Rumrill
U.S. EPA Region IX, (WTR-3-2)
75 Hawthorne Street
San Francisco, CA 94105

If you require additional information or have any questions regarding this letter, please call me at (415) 972-3971 or Nancy Rumrill of my staff at (415) 972-3293.

Sincerely,

David Albright
Manager, Drinking Water Protection Section

Enclosures

cc (via e-mail): Rebecca Sawyer, Excelsior Mining Arizona, Inc.
Ann V. Howard, Deputy State Historic Preservation Officer / Archaeologist

No Historic Properties Affected

Mary-Ellen Walsh 4/5/17
Arizona State Historic Preservation Office
Arizona State Parks Board