



PUBLIC NOTICE

**U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT**

BUILDING STRONG®

APPLICATION FOR PERMIT

Resolution Copper Mine Tailings Storage Facility

Public Notice/Application No.: SPL-2016-00547-MWL

Project: Resolution Copper Mine Tailings Storage Facility

Comment Period: September 6, 2019 through November 7, 2019

Project Manager: Michael Langley; (602) 230-6953

Applicant/Contact

Victoria Peacey
Resolution Copper Company
102 Magma Heights
Superior, Arizona 85273

Location

The proposed tailings storage facility (TSF) is located approximately 16 miles southeast of the Town of Superior and the Resolution Project West Plant Site within portions of Sections 33 through 35, Township 2 South, Range 14 East and Sections 1 through 4, 9 through 12, and 14 through 16, Township 3 South Range 14 East. The proposed tailings and water pipelines would run from the West Plant Site to the proposed TSF. The project is located in unincorporated areas of Pinal and Gila Counties, Arizona.

Activity

To discharge fill materials into approximately 124 acres of ephemeral waters of the U.S. associated with Dripping Springs Wash and several unnamed ephemeral drainages in order to construct a tailings storage facility (TSF), seepage collection facilities, stormwater diversions, and other related features. The proposed pipeline corridor would cross Queen Creek, Devils Canyon, Mineral Creek, and numerous unnamed ephemeral tributaries. Collectively, the TSF, its appurtenant features, and the pipeline comprise the Project subject to this Section 404 permit (see attached drawings). The development of the TSF and its appurtenant infrastructure would result in the permanent loss of the potential waters of the U.S. within the footprints of these mine elements. Indirect impacts from the dewatering of down-gradient drainages may result in the form of changes to aquatic functions and values for the affected drainages but the magnitude of these impacts have not yet been estimated. As the TSF design is advanced, an evaluation of these indirect impacts to potential waters of the U.S. will be completed. The pipeline would result in approximately 6 acres of largely temporary impacts to the aquatic ecosystem and potential waters of the U.S. Impacts associated with the pipeline corridor will be refined during the review process as the pipeline design is advanced. For more information see page 4 of this notice.

Interested parties are hereby notified an application has been received for a Department of the Army permit for the activity described herein and shown on the attached drawing(s). We invite you to review today's public notice and provide views on the proposed work. By providing substantive, site-specific comments to the Corps Regulatory Division, you provide information that supports the Corps' decision-making process. All comments received during the comment period become part of the record and will be considered in the decision. This permit will be issued, issued with special conditions, or denied under Section 404 of the Clean Water Act. Comments should be mailed to:

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS
REGULATORY DIVISION
ATTN: Michael Langley
3636 N. Central Ave, Suite 900
Phoenix, AZ 85012-1939

Comments can also be sent electronically to: ResolutionMine404Comments.SPL@usace.army.mil

The mission of the U.S. Army Corps of Engineers Regulatory Program is to protect the Nation's aquatic resources, while allowing reasonable development through fair, flexible and balanced permit decisions. The Corps evaluates permit applications for essentially all construction activities that occur in the Nation's waters, including wetlands. The Regulatory Program in the Los Angeles District is executed to protect aquatic resources by developing and implementing short- and long-term initiatives to improve regulatory products, processes, program transparency, and customer feedback considering current staffing levels and historical funding trends.

Corps permits are necessary for any work, including construction and dredging, in the Nation's navigable water and their tributary waters. The Corps balances the reasonably foreseeable benefits and detriments of proposed projects, and makes permit decisions that recognize the essential values of the Nation's aquatic ecosystems to the general public, as well as the property rights of private citizens who want to use their land. The Corps strives to make its permit decisions in a timely manner that minimizes impacts to the regulated public.

During the permit process, the Corps considers the views of other Federal, state and local agencies, interest groups, and the general public. The results of this careful public interest review are fair and equitable decisions that allow reasonable use of private property, infrastructure development, and growth of the economy, while offsetting the authorized impacts to the waters of the United States. The permit review process serves to first avoid and then minimize adverse effects of projects on aquatic resources to the maximum practicable extent. Any remaining unavoidable adverse impacts to the aquatic environment are offset by compensatory mitigation requirements, which may include restoration, enhancement, establishment, and/or preservation of aquatic ecosystem system functions and services.

Evaluation Factors

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including

the cumulative effects thereof. Factors that will be considered include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people. In addition, if the proposal would discharge dredged or fill material, the evaluation of the activity will include application of the EPA Guidelines (40 CFR Part 230) as required by Section 404 (b)(1) of the Clean Water Act.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Preliminary Review of Selected Factors

EIS Determination- The activities for which a Section 404 permit are being sought are part of a larger proposal by the applicant to develop and operate an underground copper and molybdenum mine near Superior in Pinal County, Arizona. Other components of that plan do not involve a discharge of dredged or fill material to waters of the United States and thus do not necessitate a permit from the Corps. In December 2014, as part of the National Defense Authorization Act (NDAA) for fiscal year 2015, Congress authorized a land exchange between the federal government and the applicant designed to facilitate development of the proposed mine, pending completion of an Environmental Impact Statement (EIS). Section 3003(c)(9)(B) of the NDAA directed the U.S. Forest Service (USFS) to prepare a single EIS to analyze under NEPA the effects of the exchange as well as all decisions under federal law related to the proposed mine, including the granting of permits for, among other things, the construction of tailings facilities. In conformance with this directive, the USFS Tonto National Forest (TNF) published a Draft EIS on August 9th, 2019. As mandated by the NDAA, the Corps is utilizing that EIS to satisfy its obligations under NEPA triggered by Resolution's application for a Section 404 permit to authorize the discharge of dredged or fill material to potential waters of the U.S. The Corps is a cooperating agency on the EIS and has participated in development of the Draft EIS to the extent needed to satisfy the Corps' NEPA obligations.

Water Quality- The applicant is required to obtain water quality certification, under Section 401 of the Clean Water Act, from the Arizona Department of Environmental Quality. Section 401 requires that any applicant for an individual Section 404 permit provide proof of water quality certification to the Corps of Engineers prior to permit issuance.

Cultural Resources- Based on information collected thus far, the Project will adversely impact cultural resources that are eligible for listing on the National Register of Historic Places. Consultation between the USFS, Native American Tribes, and the State Historic Preservation officer is currently occurring with respect to cultural resources impacts associated with this project. The Corps will act as a cooperating agency to this government-to-government consultation being led by the USFS. Native American Tribes have also been consulted regarding the presence of any traditional cultural properties that could potentially be affected by this project.

Endangered Species- Preliminary determinations indicate that the Project would potentially affect federally listed endangered or threatened species, or their critical habitat. Therefore, consultation under Section 7 of the Endangered Species Act is required at this time. The USFS is the lead federal agency for Section 7 consultation.

Public Hearing- Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearing shall state with particularity the reasons for holding a public hearing.

The USFS is conducting 5 public meetings to solicit input from the public on the Draft EIS. These meetings will be held at the following locations on the given dates and times:

- Tuesday evening, September 10, 2019 at the Superior Jr./Sr. High School cafeteria in Superior from 5:00 to 8:00 PM (Arizona time),
- Thursday evening, September 12, 2019 at Central Arizona College in San Tan Valley from 5:00 to 8:00 PM (Arizona time)
- Tuesday evening, September 17, 2019 at Ray Elementary School Cafeteria in Kearny from 5:00 to 8:00 PM (Arizona time),
- Thursday evening, September 19, 2019 at High Desert Middle School Auditorium in Globe from 5:00 to 8:00 PM (Arizona time), and
- Tuesday evening, October 8, 2019 at Queen Valley Community Center in Queen Valley, Arizona from 6:00 to 9:00 PM (Arizona time).

These meetings include an open house period for attendees to get information about the project and a public hearing by the USFS to receive comments on the Draft EIS. Although these meetings do not constitute public hearings/meetings by the Corps on the permit application, Corps staff will be present at each of these meetings to answer questions about the permitting process.

Proposed Activity for Which a Permit is Required

Basic Project Purpose- The basic project purpose comprises the fundamental, essential, or irreducible purpose of the proposed project, and is used by the Corps to determine whether the applicant's project is water dependent (i.e., requires access or proximity to or siting within a special aquatic site to fulfill its basic purpose). Establishment of the basic project purpose is necessary only when the proposed activity would discharge dredged or fill material into a special aquatic site (e.g., wetlands, pool and riffle complex, mudflats, coral reefs). The applicant's basic project purpose is mine tailings storage, which is not water-dependent. However, the proposed discharge will not affect a special aquatic site, so the rebuttable presumption in 40 C.F.R. § 230.10(a)(3) is not triggered.

Overall Project Purpose- The overall project purpose serves as the basis for the Corps' 404(b)(1) alternatives analysis and is determined by further defining the basic project purpose in a manner that more specifically describes the applicant's goals for the project, and which allows a reasonable range of alternatives to be analyzed. The overall project purpose for the proposed project is to construct and operate a TSF and associated infrastructure capable of storing approximately 1.37 billion tons of tailings produced through milling copper and molybdenum ore from the Resolution ore body (plus approximately 12 million cubic yards of on-site borrow material used to construct the starter embankments), along with the pipelines and associated infrastructure needed to transport tailings to the TSF and recycled water from the TSF back to the concentrator facility.

Additional Project Information

Project description- Resolution proposes the development of the Resolution ore body using panel caving, a type of cave mining. The copper and molybdenum ore will be mined, undergo primary crushing underground, and then be sent to a concentrator facility to be constructed at the existing West Plant Site north of Superior. Concentrate produced here will be transported offsite for additional processing, while the resulting tailings will be transported via a pipeline to the proposed TSF location. As configured, only the development of the TSF, pipelines, and auxiliary infrastructure require a discharge of dredged or fill material into potential waters of the U.S. Discharge of fill for the development of these features, particularly the TSF, consists mostly of the levelling of existing topography through cut and fill of the natural ground surface. Materials to be discharged to potential waters of the U.S. during this process would consist primarily of native soil and rock taken from the footprint of the constructed features during the grading process. Ultimately, the TSF is expected to contain approximately 1.37 billion tons of tailings produced through milling copper and molybdenum ore from the Resolution ore body plus approximately 12 million cubic yards of on-site borrow material used to construct the starter embankments.

Alternatives- A practicability analysis is included as Appendix C to the Draft EIS to address the CWA Section 404 permit alternatives evaluation requirements under the 404(b)(1) guidelines. That practicability analysis describes the criteria used to analyze and screen alternatives, identifies alternatives initially considered but dismissed from detailed consideration (and the reasons for those dismissals), and contains a more detailed practicability analysis of five action alternatives. The applicant has submitted a Section 404 permit application for the Skunk Camp TSF alternative, which is identified as Alternative 6 (the Preferred Alternative) in the Draft EIS. A full 404(b)(1) Alternatives Analysis, including designation of a Least Environmentally Damaging Practicable Alternative, will be prepared and included in the Final EIS.

Proposed Mitigation- The proposed mitigation may change as a result of comments received in response to this public notice, the applicant's response to those comments, and/or the need for the project to comply with the 404(b)(1) guidelines. In consideration of the above, the proposed mitigation sequence (avoidance/minimization/compensation), as applied to the proposed project is summarized below:

Avoidance/Minimization: The project was designed to avoid impacts to waters of the U.S. to the extent practicable. As proposed, only the TSF, associated pipelines, and appurtenant infrastructure require impacts to potential waters of the U.S. The design of the proposed TSF also includes stormwater diversion channels to route stormwater runoff higher in the watershed around the TSF and minimize potential indirect dewatering effects to the drainages down-gradient of the TSF.

Compensation: The Applicant proposes compensatory mitigation for unavoidable impacts to ephemeral potential waters of the U.S. through permittee-responsible habitat restoration, contribution to an in-lieu fee program, or a combination thereof. A conceptual mitigation plan identifying mitigation opportunities is included as Appendix D to the Draft EIS.

Proposed Special Conditions

Special Conditions have not yet been developed and will be based on the results of the EIS review and CWA Section 404 permit analysis.

For additional information please call Michael Langley of my staff at (602) 230-6953. This public notice is issued by the Chief, Regulatory Division.

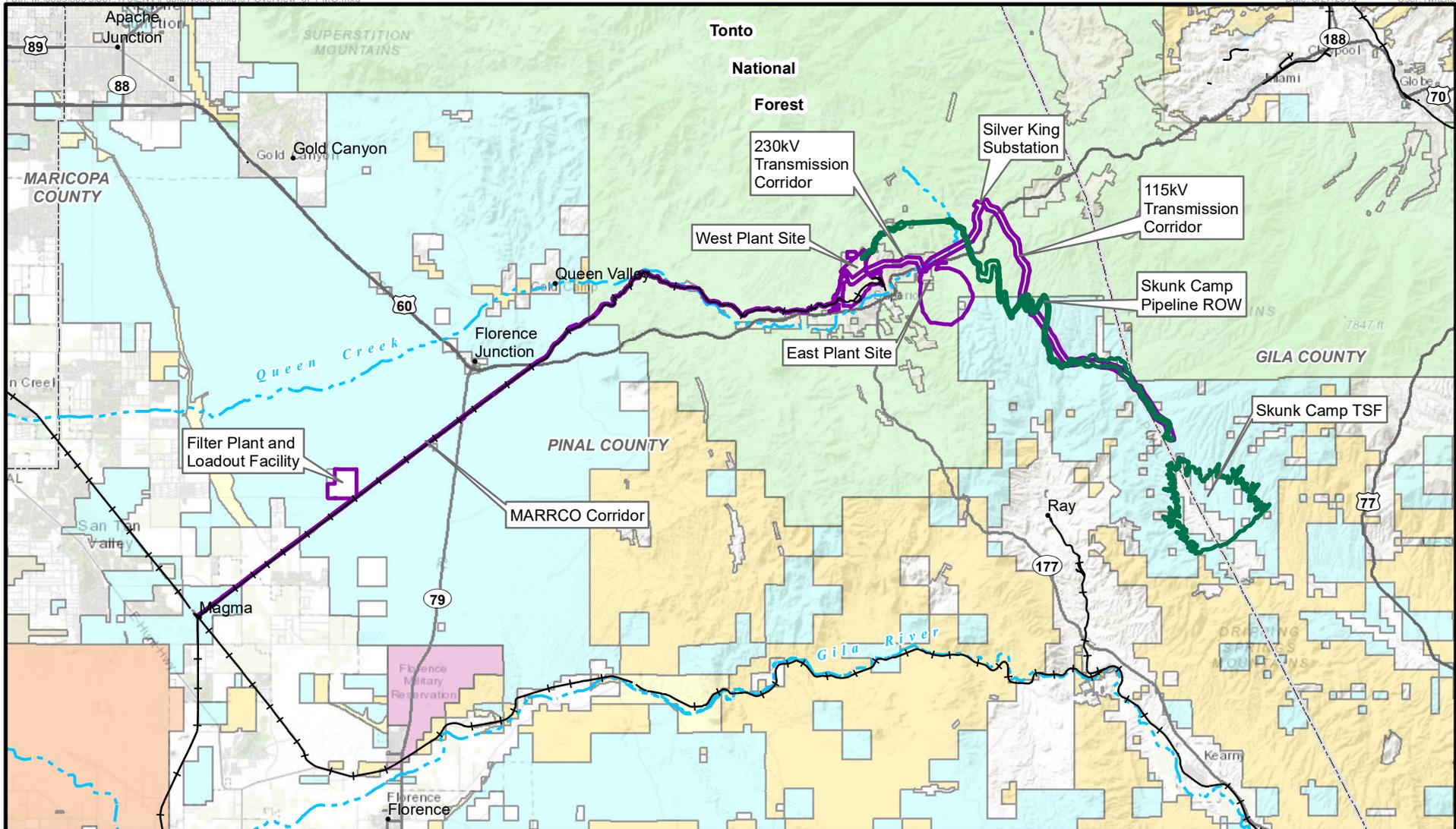


Regulatory Program Goals:

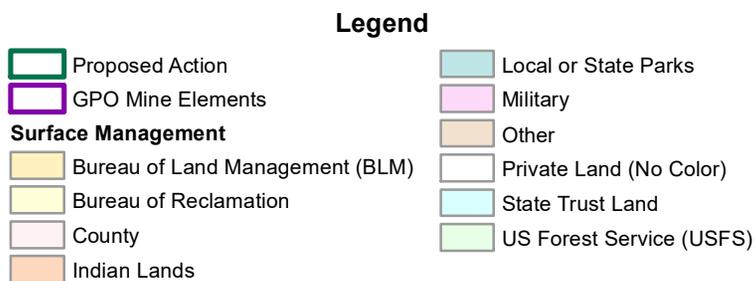
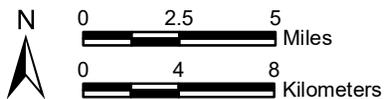
- To provide strong protection of the nation's aquatic environment, including wetlands.
- To ensure the Corps provides the regulated public with fair and reasonable decisions.
- To enhance the efficiency of the Corps' administration of its regulatory program.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS
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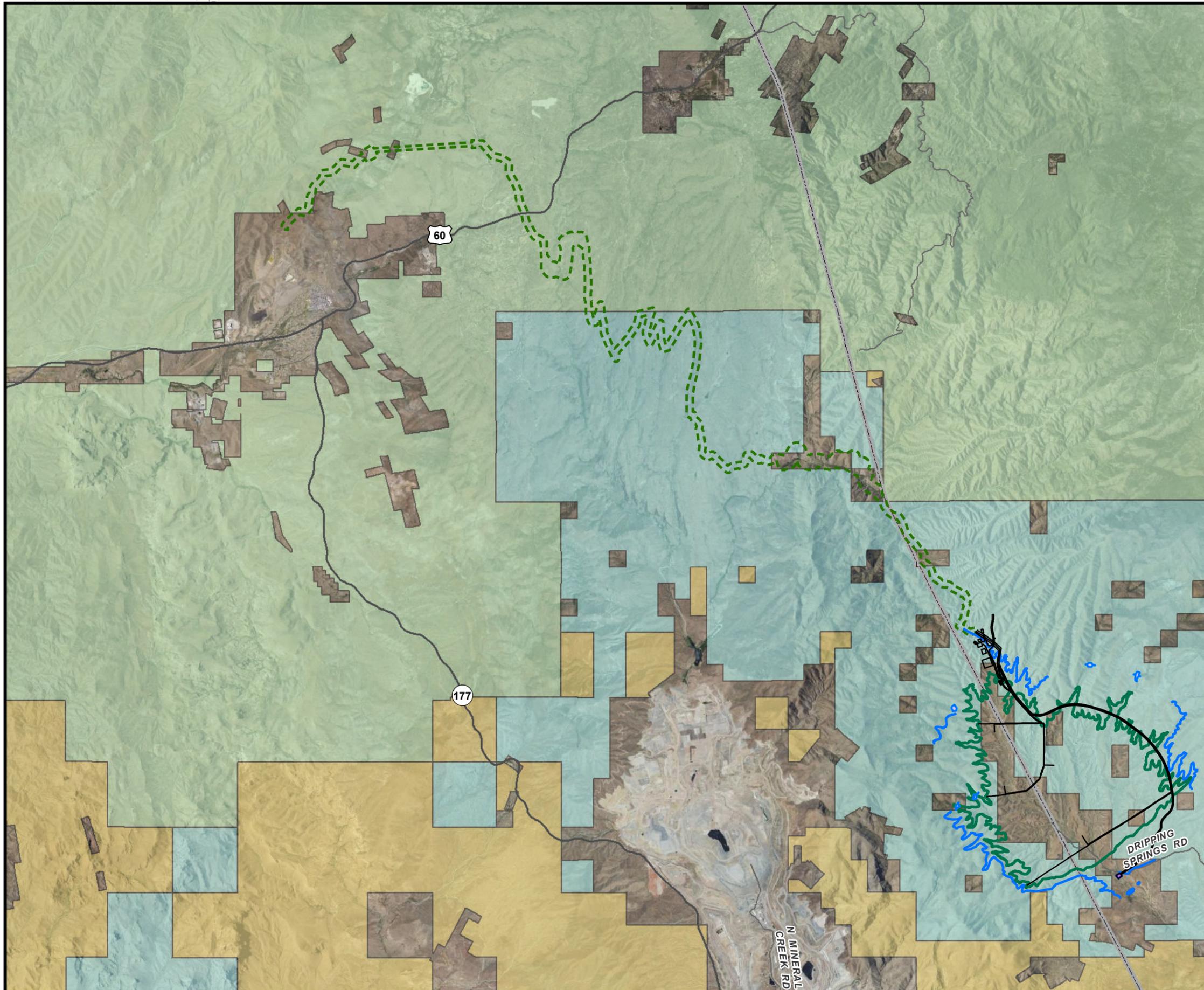
Pinal and Gila Counties, Arizona,
 Surface Management: BLM 2019, WRI Modified 2019,
 Data Source: ALRIS Roads and SWCA DEIS
 Image Source: ArcGIS Online, World Topo Map



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OVERVIEW OF
 PROPOSED MINING OPERATION

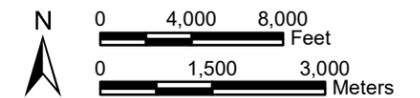
Figure 1



Skunk Camp TSF and Pipeline within:
 T1S, R12 and 13E, T2S, R13 and 14E, and T3S, R14E,
 Gila and Pinal Counties, Arizona,
 Surface Management: BLM 2019, WRI modified 2019,
 Data Source: ALRIS Roads, Golder and Associates, and
 SWCA DEIS
 Image Source: 2017 USDA NAIP Orthophoto

Legend

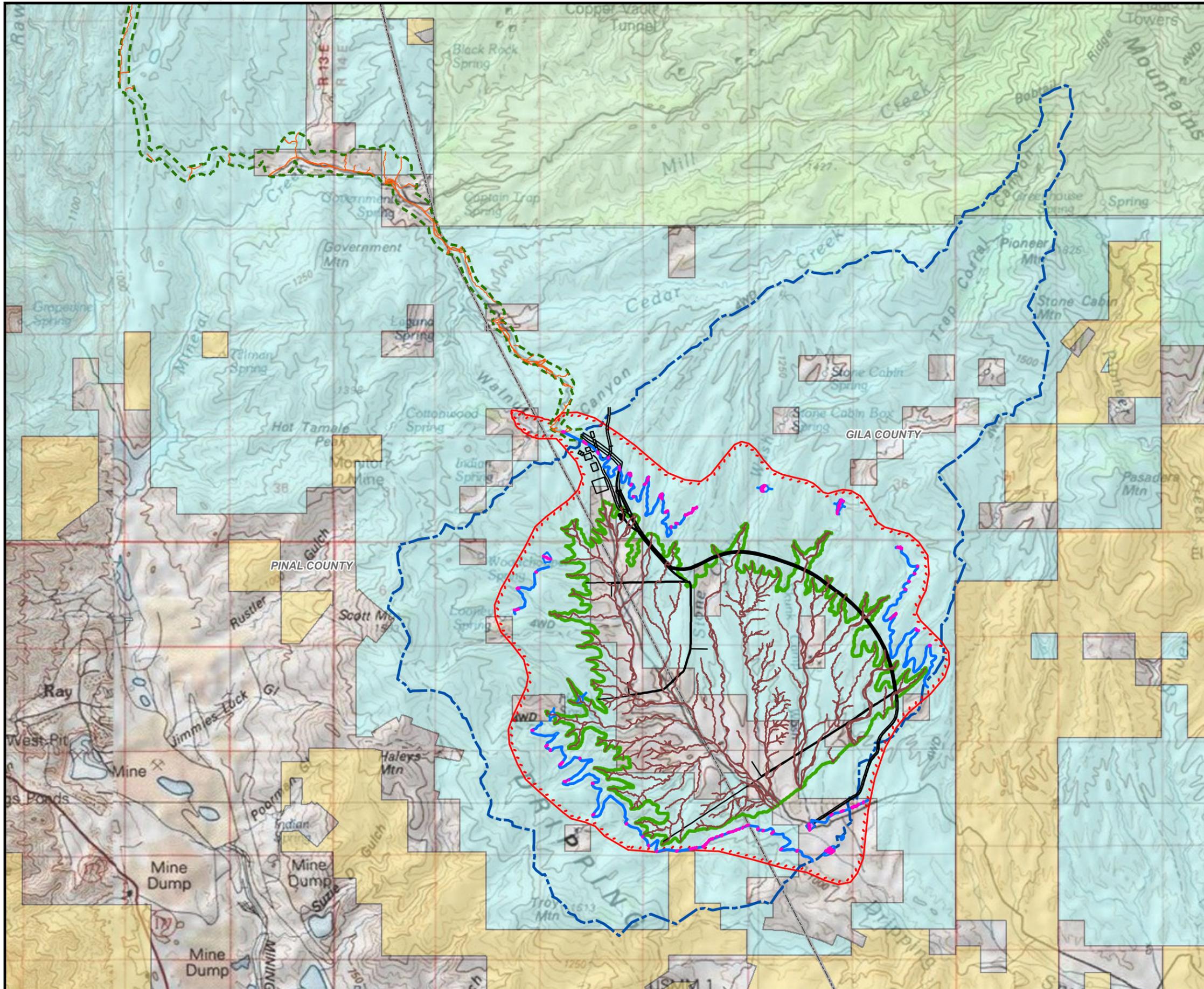
- Ancillary Facilities
- ▭ Skunk Camp Diversion Channels
- ▭ Skunk Camp Seepage Dam
- ▭ Skunk Camp Diversion Dike
- ▭ Skunk Camp Toe Collection Pond
- - - North Skunk Camp 500 foot Pipeline ROW
- ▭ Skunk Camp Tailings Storage Facility
- Surface Management**
- ▭ Bureau of Land Management (BLM)
- ▭ Private Land (No Color)
- ▭ State Trust Land
- ▭ US Forest Service (USFS)



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SKUNK CAMP TSF AND
 PIPELINE CORRIDOR OVERVIEW

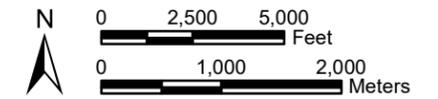
Figure 2



Skunk Camp TSF within:
 T2S, R14E, Portions of Sections 33-35,
 T3S, R14E, Portions of Sections 1-4, 9-12, and 14-16,
 Pinal and Gila Counties, Arizona,
 Globe USGS 1:100,000 Quadrangle
 Surface Management: BLM 2019, WRI Modified 2019,
 Data Source: Golder and Associates, and SWCA DEIS

Legend

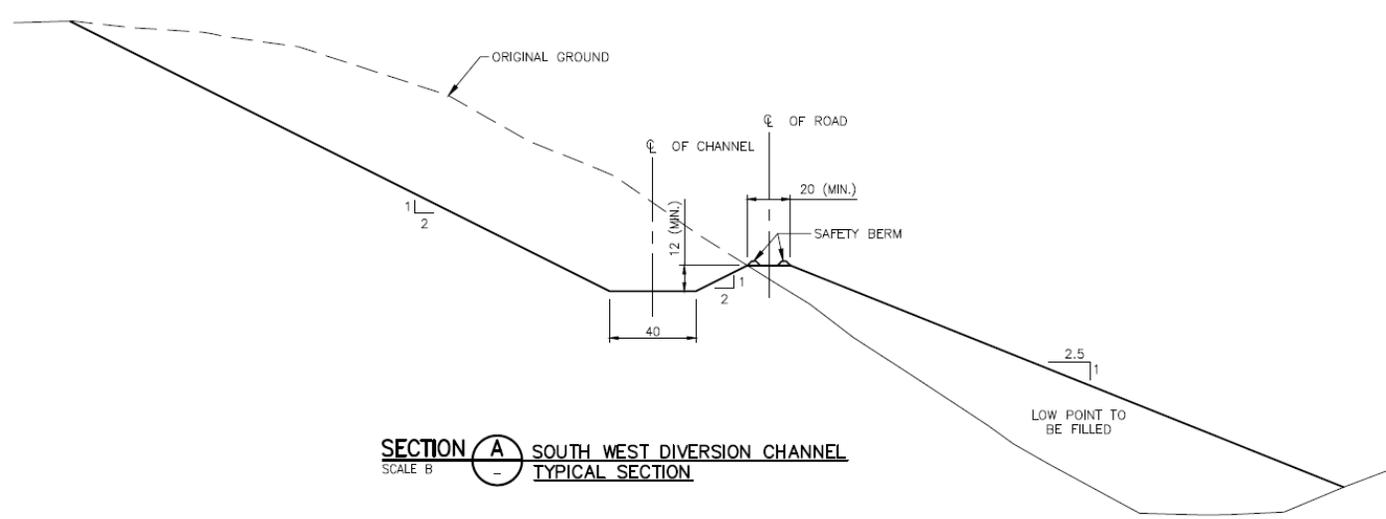
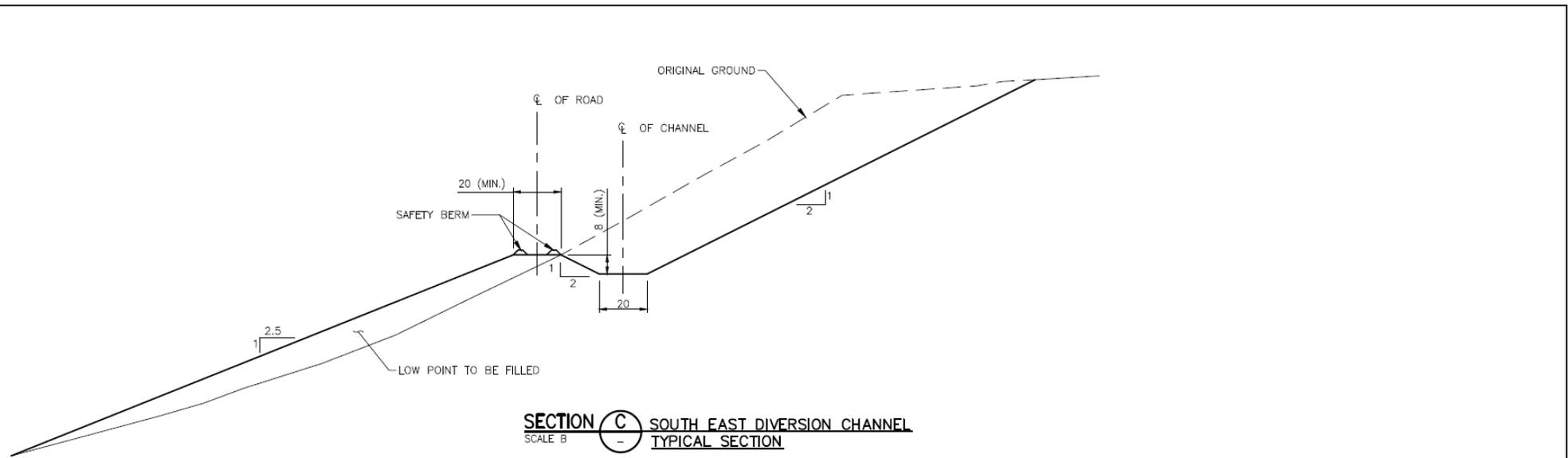
- Ancillary Facilities
- Skunk Camp Diversion Channels
- Skunk Camp Seepage Dam
- Skunk Camp Diversion Dike
- Skunk Camp Toe Collection Pond
- Skunk Camp Diversion Channels/Dikes Impacted OHWM
- Skunk Camp TSF Impacted OHWM
- North Skunk Camp Pipeline Impacted OHWM
- North Skunk Camp 500 foot Pipeline ROW
- Proposed Action Component
- Skunk Camp Catchment
- Skunk Camp Tailings Storage Facility
- Surface Management**
- Bureau of Land Management (BLM)
- Private Land (No Color)
- State Trust Land
- US Forest Service (USFS)



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SKUNK CAMP AND PIPELINE CORRIDOR IMPACTS
 TO AQUATIC ECOSYSTEMS

Figure 3



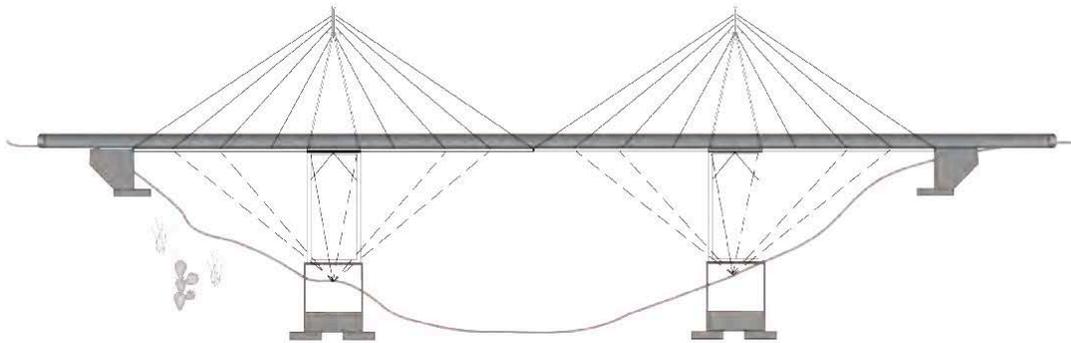
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DIVERSION CHANNEL TYPICAL CROSS-SECTION
Figure 4

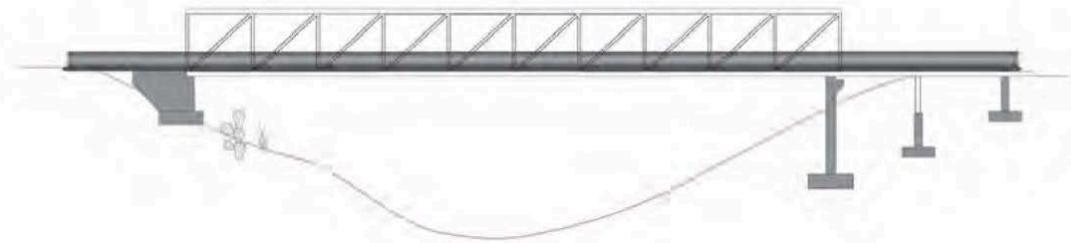
Carbon Steel Pipe Specifications and Use during Mine Life

Year of Operation	10-in. Diameter 0.375-in. Wall	22-in. Diameter 0.375-in. Wall 0.5-in. HDPE* liner	34-in. Diameter 1.25-in. Wall	16-in. Diameter 0.375-in. Wall
1-5 (ramp-up)	PAG	NPAG	-	Reclaim water
6 (ramp up)	PAG	-	NPAG	Reclaim water
7-41 (steady state)	-	PAG	NPAG	Reclaim water

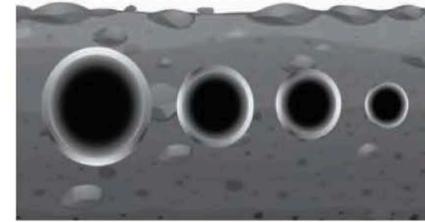
* HDPE:



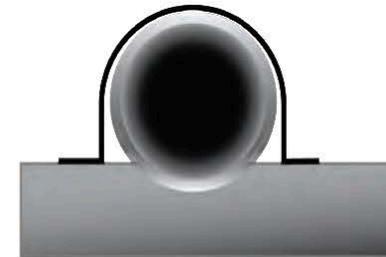
General arrangement of cable-stayed bridge – used for spanning canyons



General arrangement of a through-truss bridge – used for spanning smaller channels



General arrangement of buried pipelines



Overland secured pipelines where construction is difficult due to bedrock



Horizontal directional drilling and/or micro tunneling will be used to undercut roads, waterways, or for high-point mountain passes

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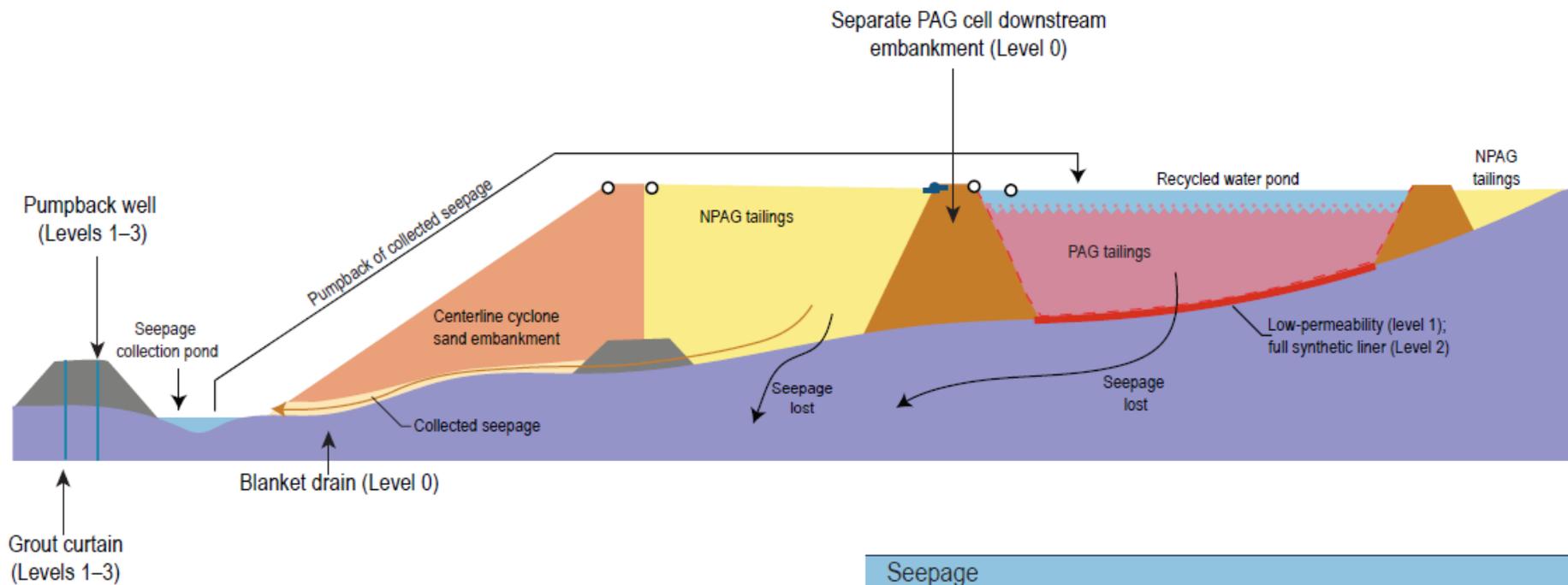
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PIPELINE CORRIDOR TYPICAL CROSS-SECTION

Figure 5

Conceptual Cross Section of Entire Facility

Alternative 6 – Seepage Control Levels 0–3



Seepage Control Level	Grout Curtain/Cut-off	PumpBack Well
1	Depth of 70 feet	Depth of 20 feet
2	Depth of 100 feet	Depth of 70 feet
3	Depth of 100 feet	Depth of 100 feet

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TSF SEEPAGE CONTROL TYPICAL CROSS-SECTION

Figure 6