



US Army Corps
of Engineers
Alaska District

Public Notice of Application for Permit

FAIRBANKS FIELD OFFICE
Regulatory Division (1145)
CEPOA-RD
P.O. Box 35066
Fort Wainwright, Alaska 99703

PUBLIC NOTICE DATE:	September 19, 2022
EXPIRATION DATE:	October 19, 2022
REFERENCE NUMBER:	POA-1996-00211
WATERWAY:	Goodpaster River

Interested parties are hereby notified that a Department of the Army permit application has been received for work in waters of the United States as described below and shown on the enclosed project drawings.

All comments regarding this Public Notice should be sent to the address noted above. If you desire to submit your comments by email, you should send it to the Project Manager's email as listed below or to regpagemaster@usace.army.mil. All comments should include the Public Notice reference number listed above.

All comments should reach this office no later than the expiration date of this Public Notice to become part of the record and be considered in the decision. Please contact Tiffany Kwakwa at (907) 201-5458 or by email at Tiffany.D.Kwakwa@usace.army.mil if further information is desired concerning this notice.

APPLICANT: Northern Star (Pogo) LLC (POC: Michael Eckert), P.O. Box 145, Delta Junction, Alaska 99737

AGENT: Northern Star (Pogo) LLC (POC: Russell Gossett), P.O. Box 145, Delta Junction, Alaska 99737

LOCATION: The project site is located within Section 25 and 36, T. 5 S., R. 14 E., Fairbanks Meridian, USGS Quad Map Big Delta B-2; Latitude 64.445354° N., Longitude 144.877660° W.; approximately 35 miles northeast of Delta Junction, Alaska.

PURPOSE: The applicant's stated purpose is to expand existing facilities at the Pogo Mine to operate economically and safely for an additional ten years.

PROPOSED WORK: The proposed work is a modification of activities previously authorized under POA-1996-00211. An additional total of approximately 4.9 acres wetlands would be permanently impacted by the proposed project from the following activities – the applicant is proposing to permanently impact approximately 2.6 acres wetlands by placing approximately 5,000 cubic yards of fill material to expand the Pogo Mine Dry Stack Tailings Facility (DSTF) and permanently impact 2.3 acres wetlands by placing 5,000 cubic yards fill material for the laydown area (Road 8 and Ruen Laydown Area). Non-mineralized rock from the property would be used as the fill material.

At the DSTF a diversion ditch construction and service road require material to be removed from the slope above the ditch to build a stable base for the diversion ditch and road in areas of unstable slide rock. Geotechnical engineering has identified unstable slide rock that must be removed for construction. The diversion ditches would convert approximately 100 linear feet of upper valley stream to a diversion ditch. The surface water from the stream would be rerouted to avoid entering the DSTF and contacting mineralized rock. Water would continue to flow downgradient through the property.

In addition, for safe surface truck operation Road 8 and the Ruen Laydown Area require widening and expansion for safe operation of the larger surface fleet and for equipment storage. The mine would continue to operate using the already permitted and constructed facilities in Liese Creek Valley.

At the end of mining activities, the DSTF and associated diversion ditches would be reclaimed and closed according to Pogo's reclamation and closure plan.

Additional areas outside of the U.S. Army Corps of Engineers (Corps) geographic jurisdiction would be impacted by the proposed project in association with the proposed work.

All work would be performed in accordance with the enclosed plan (sheets 1-13), dated July 25, 2022. Work is anticipated to begin May 2023.

APPLICANT PROPOSED MITIGATION: The applicant proposes the following mitigation measures to avoid, minimize, and compensate for impacts to waters of the United States from activities involving discharges of dredged or fill material.

a. Avoidance:

Road 8 / Ruen Laydown Area: The applicant stated that "the proposed laydown pad is located adjacent to existing facilities on both the west and east sides. Additional laydown area and roadway is required for the larger sized surface fleet to move safely in this area. Already constructed pads will be extended. The new proposed pad and road have been sized to allow for safe winter and summer operations with the larger surface equipment. Site distance and braking distances were considered during design. The fill is required to improve safety by

reducing identified operational constraints. Further avoidance of fill in wetlands is not practicable considering the overall project purpose to maintain safe operation at the mine.”

Further that “The road cannot be rerouted to connect to internal facilities. There are no internal road alternatives available that avoid wetlands. The uplands have been fully utilized and are not available.”

DSTF: The applicant stated that “a waste storage scoping study was prepared to determine the best option for expanding tailings storage. The current facility is permitted to receive a total of 20 Mt of waste materials (tailings and waste rock) under the Alaskan Department of Environmental Quality (ADEC) Waste Management and Corps Permits. Data compiled in May of 2019, determined there was space for only 4.5 years of operation. The current approved site will fill before mine life expires. [The applicant] commissioned a study to evaluate potential storage sites. Fifteen disposal sites were considered and then reduced to seven sites surrounding the current mine. [...] Expanding the Liese Creek DSTF utilizes existing facilities, therefore avoiding, and minimizing new wetland disturbance for diversion ditches, treatment facilities, water control facilities, dams, [recycled tailings pond], and haul roads. Existing haul roads and down valley diversion ditches are in place, avoiding new wetland fills for attendant features. Additional mineralized and waste rock storage space is available in uplands avoiding additional wetland impact. [...] The Liese Creek DSTF (storage site) will be constructed in uplands in the headwaters of Liese Creek avoiding wetlands. The existing diversion ditch must be reconstructed upslope to increase the waste storage capacity. The ditch relocation will impact wetlands (2.6 acres) and streams (100 feet) with the DSTF (storage site) located in uplands (72.1 acres). All other options would have greater impacts to wetlands to complete a DSTF. Complete avoidance of WOUS is not practicable.”

b. Minimization:

Road 8 / Ruen Laydown Area: The applicant stated that “The laydown area is located to utilize adjacent uplands and approved fill pads minimizing additional fill requirements. The pads were viewed holistically to ensure adequate space for all proposed uses. Internal access roads were designed for adequate site distance and grade to ensure stopping distances for mine equipment in all seasons. Roads and pads were designed on the current production rate and size of the surface fleet. Further minimization is not practicable.”

DSTF: The applicant stated that “The fill in wetlands was minimized by collocating existing facilities and combining the diversion ditch with an access road. The access was designed on the fill side of the ditch cut to minimize the footprint in wetlands. The amount of mechanized land clearing in wetlands was reduced to that required to maintain slope stability for the diversions and road. Diversion ditches will be constructed and located to capture water upslope of the DSTF and divert clean surface water and avoid contamination by mixing with mineral contact water. All water that meets mill tailings or waste rock must be sent to a water treatment facility. Reducing the volume of clean water contacting the DSTF rock reduces the volume of treated water. The reduction of treated water minimizes treatment facilities constructed or placed in wetlands. Uplands were maximized in the design of the DSTF by using existing ditches and making connections through uplands for required ditches and roads.

The proposed project will connect new roads to existing access in uplands. The waste storage area for tailings and waste rock disposal is in uplands. Further minimization is not practicable.”

Best Management Practices: The applicant stated that “New water drains and diversion ditches will be constructed to divert clean water away from the mineralized rock in the DSTF. The disturbance area will be an extension of the current DSTF and will use drainage controls currently in place. All DSTF contact water will be diverted to the Mine Water Treatment Plant before it is discharged to the Goodpaster River. NRS will follow their sitewide Stormwater Pollution Prevention Plan (SWPPP). The SWPPP flow directions are shown in attached figures to demonstrate how the proposed plan uses existing drainage structures and controls to manage surface water avoiding and minimizing fill in wetlands. The SWPPP plan has been designed and is operated to minimize contact water interface. This plan ensures contact water is diverted to the Mine Water Treatment Plant prior to discharge. The SWPPP drainage plan has been included within the plan sheets to show how the proposed new fill integrates with the existing SWPPP design. Additional fill is not required thus minimizing new fill requirements by using existing permitted structures. The boundaries of all clearing and fill limits will be marked in advance of work. Mechanized land clearing or fill actions will not exceed marked limits. Clearing and filling will not be conducted outside the established boundaries. Vegetative clearing will be scheduled to occur outside the migratory bird nesting season, or bird nesting surveys will be conducted to ensure nests are not disturbed, consistent with the United States Fish and Wildlife Service (USFWS) guidance.”

Reclamation Plan: The applicant has developed a post-mining reclamation and closure plan. The objectives of the plan are to stabilize disturbed land surfaces against erosion and return the land for wildlife habitat and public recreational use post-mine.

c. **Compensatory Mitigation:** The applicant is proposing to purchase wetland credits from the Tanana Valley Mitigation Bank to offset the loss of functions and values from the wetlands proposed to be filled. The applicant conducted a functional assessment of the project site using the Alaska Wetland Assessment Method (AKWAM).

The applicant stated that “to determine the number of credits required the impacts were broken down into three different wetland assessment areas (AA) based on the predominate wetlands in the areas of proposed fill. AKWAM data forms were completed for each the three AAs. Two AAs are associated with the Pogo Dry Stack Expansion. Dry Stack #1 is the larger (2.0 acres) wetland impacted on the Southern side of the dry stack (Figure 3). This wetland is a slope hydrogeomorphic (HGM) Black Spruce wetland, on a north facing steep slope, no outlet, bounded downstream by the existing DSTF. Dry Stack #2 is a small riparian wetland (0.60 acre) located adjacent to headwater stream on the Northeast side of the dry stack. This is a slope HGM discharge wetland located above the existing DSTF (Figure 3). The third wetland AA (2.30 acres) is the Laydown Area (Figure 6). The laydown area wetland is a slope HGM Black Spruce wetland located at the footslope of the hillside and bounded by existing mine roads and pads. The wetland area information for each AA was taken from the Preliminary Jurisdiction (PJD) wetland report and on-site observations. The data forms are attached to this supplemental document. Functional scores for each AA are multiplied by the impact acres to

determine credit requirements for the proposed action. The bank credits that need to be purchased from Tanana Valley Mitigation Bank equals 1.24.”

Assessment Area	Functional Score	Impact Acres	Credits Needed
Drystack #1	0.12	2.00	0.24
Drystack #2	0.37	0.60	0.22
Laydown Area	0.34	2.30	0.78
Total			1.24

WATER QUALITY CERTIFICATION: A permit for the described work will not be issued until a certification or waiver of certification, as required under Section 401 of the Clean Water Act (Public Law 95-217), has been received from the Alaska Department of Environmental Conservation.

CULTURAL RESOURCES: The latest published version of the Alaska Heritage Resources Survey (AHRs) has been consulted for the presence or absence of historic properties, including those listed in or eligible for inclusion in the National Register of Historic Places. There are no cultural resources in the permit area or within the vicinity of the permit area. The permit area has been determined to be the footprint of waters impact where the Corps has jurisdiction. Consultation of the AHRs constitutes the extent of cultural resource investigations by the Corps at this time, and we are otherwise unaware of the presence of such resources. The Corps has made a No Historic Properties Affected (No Effect) determination for the proposed project. This application is being coordinated with the State Historic Preservation Office (SHPO), federally recognized tribes, and other consulting parties. Any comments SHPO, federally recognized tribes, and other consulting parties may have concerning presently unknown archeological or historic data that may be lost or destroyed by work under the requested permit will be considered in our final assessment of the described work. The Corps is requesting the SHPO’s concurrence with this determination.

ENDANGERED SPECIES: No threatened or endangered species are known to use the project area. We have determined the described activity would have no effect on any listed or proposed threatened or endangered species and would have no effect on any designated or proposed critical habitat, under the Endangered Species Act of 1973 (87 Stat. 844). Therefore, no consultation with the USFWS or the National Marine Fisheries Service (NMFS) is required. However, any comments they may have concerning endangered or threatened wildlife or plants or their critical habitat will be considered in our final assessment of the described work.

ESSENTIAL FISH HABITAT: The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996, requires all Federal agencies to consult with the NMFS on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH).

The project area is within the known range of Chinook salmon (*Oncorhynchus tshawytscha*) and chum salmon (*Oncorhynchus keta*). The Goodpaster River is classified as an anadromous river by the Alaska Department of Fish and Game. Liese Creek is the primary stream flowing through the mine facilities. Goodpaster River would not be impacted by the proposed project nor would any areas directly adjacent to Goodpaster River. All surface waters would be directed through sediment control structures to prevent sediment or contact water from leaving the mine site and entering neighboring wetlands or the Goodpaster River. All water on hillsides outside current mine disturbance flows down slope and is funneled to a pond neighboring the project area (not connected to the Goodpaster River). The pond allows any sediment to drop out. Water from the pond is discharged to Goodpaster River through Pogo's permitted stormwater discharge point under Alaska Pollution Discharge Elimination System (APDES) permits; water that contacts the Dry Stack Facility would be collected in the Recycled Tailings Pond and treated at the Mine Water Treatment Plant prior to discharge. To prevent clean water from picking up sediment or contaminants at the Dry Stack Facility, new diversion ditches would be constructed upgradient to redirect clean water around the Dry Stack Facility into Liese Creek, where it flows around the mine into lowlands near the Goodpaster River. Sediment discharge to the Goodpasture River is not authorized and would not take place using in-place and planned site controls for storm water runoff at the mine site. We have determined the described activity would not adversely affect EFH in the project area.

TRIBAL CONSULTATION: The Corps fully supports tribal self-governance and government-to-government relations between Federally recognized Tribes and the Federal government. Tribes with protected rights or resources that could be significantly affected by a proposed Federal action (e.g., a permit decision) have the right to consult with the Alaska District on a government-to-government basis. Views of each Tribe regarding protected rights and resources will be accorded due consideration in this process. This public notice serves as notification to the Tribes within the area potentially affected by the proposed work and invites their participation in the Federal decision-making process regarding the protected Tribal right or resource. Consultation may be initiated by the affected Tribe upon written request to the District Commander during the public comment period.

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 hearings shall state, with particularity, reasons for holding a public hearing.

EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity and its intended use on the public interest. Evaluation of the probable impacts, which the proposed activity may have on the public interest, requires a careful weighing of all the factors that become relevant in each particular case. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. The outcome of the general balancing process would determine whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur. The decision should reflect the national concern for both protection and utilization of important resources. All factors, which may be relevant to the proposal, must be considered including the cumulative effects thereof. Among those are conservation, economics, aesthetics, general environmental concerns, wetlands,

cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving 404 discharges, a permit will be denied if the discharge that would be authorized by such permit would not comply with the Environmental Protection Agency's 404(b)(1) guidelines. Subject to the preceding sentence and any other applicable guidelines or criteria (see Sections 320.2 and 320.3), a permit will be granted unless the District Commander determines that it would be contrary to the public interest.

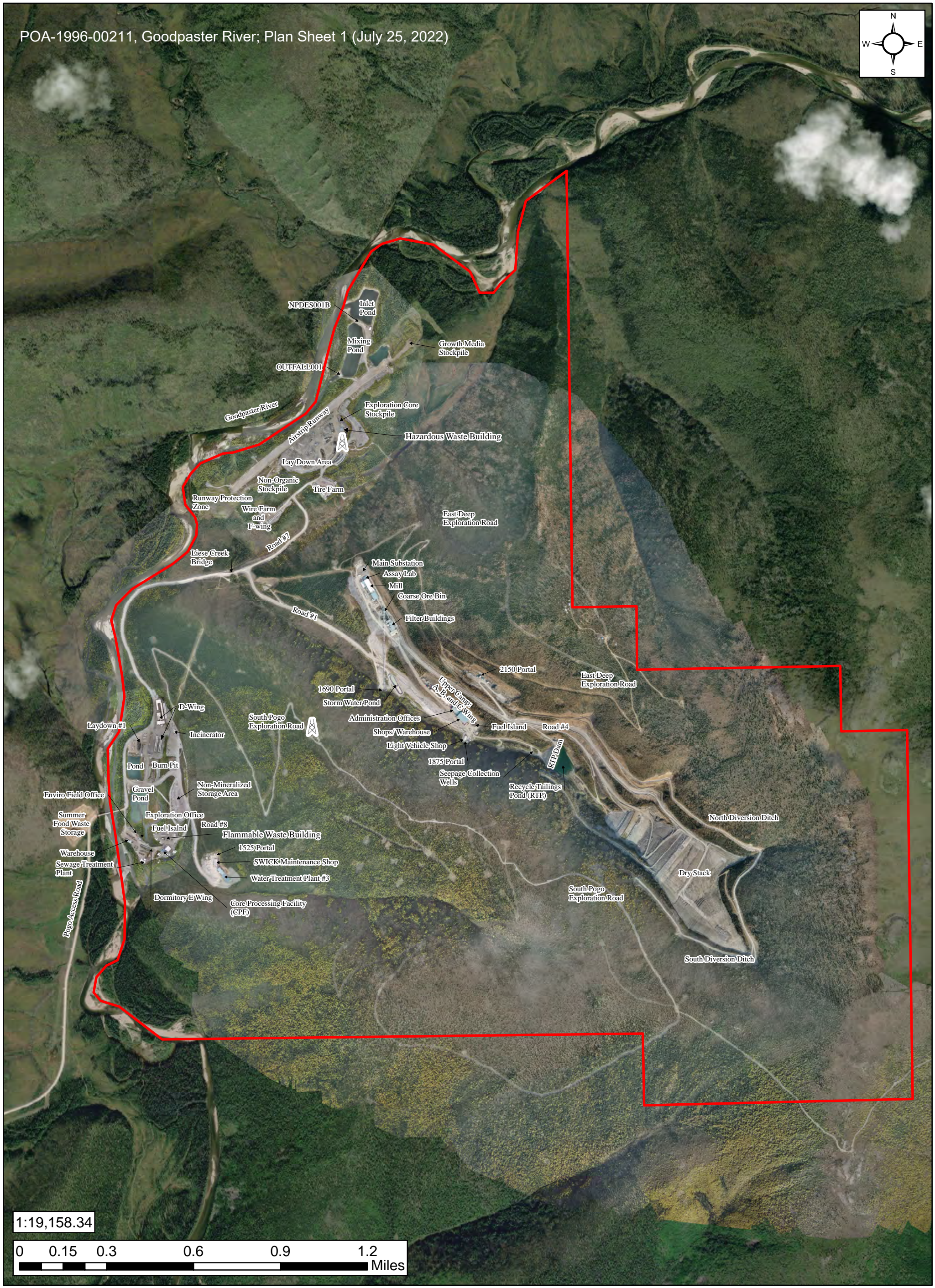
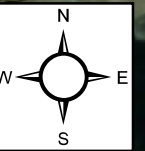
The Corps is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, 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.

AUTHORITY: This permit will be issued or denied under the following authority:

(X) Discharge dredged or fill material into waters of the United States – Section 404 Clean Water Act (33 U.S.C. 1344). Therefore, our public interest review will consider the guidelines set forth under Section 404(b) of the Clean Water Act (40 CFR 230).

District Commander
U.S. Army, Corps

Enclosures



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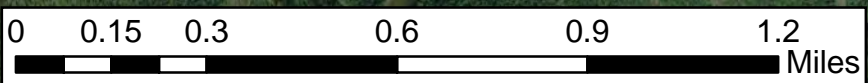


Figure 1
Pogo Mine Location Map
Drystack Tailings Facility Expansion Project





Figure 2
Drystack Tailings Facility (DSTF) and Recycled Tailings Pond Map
Drystack Tailings Facility Expansion Project



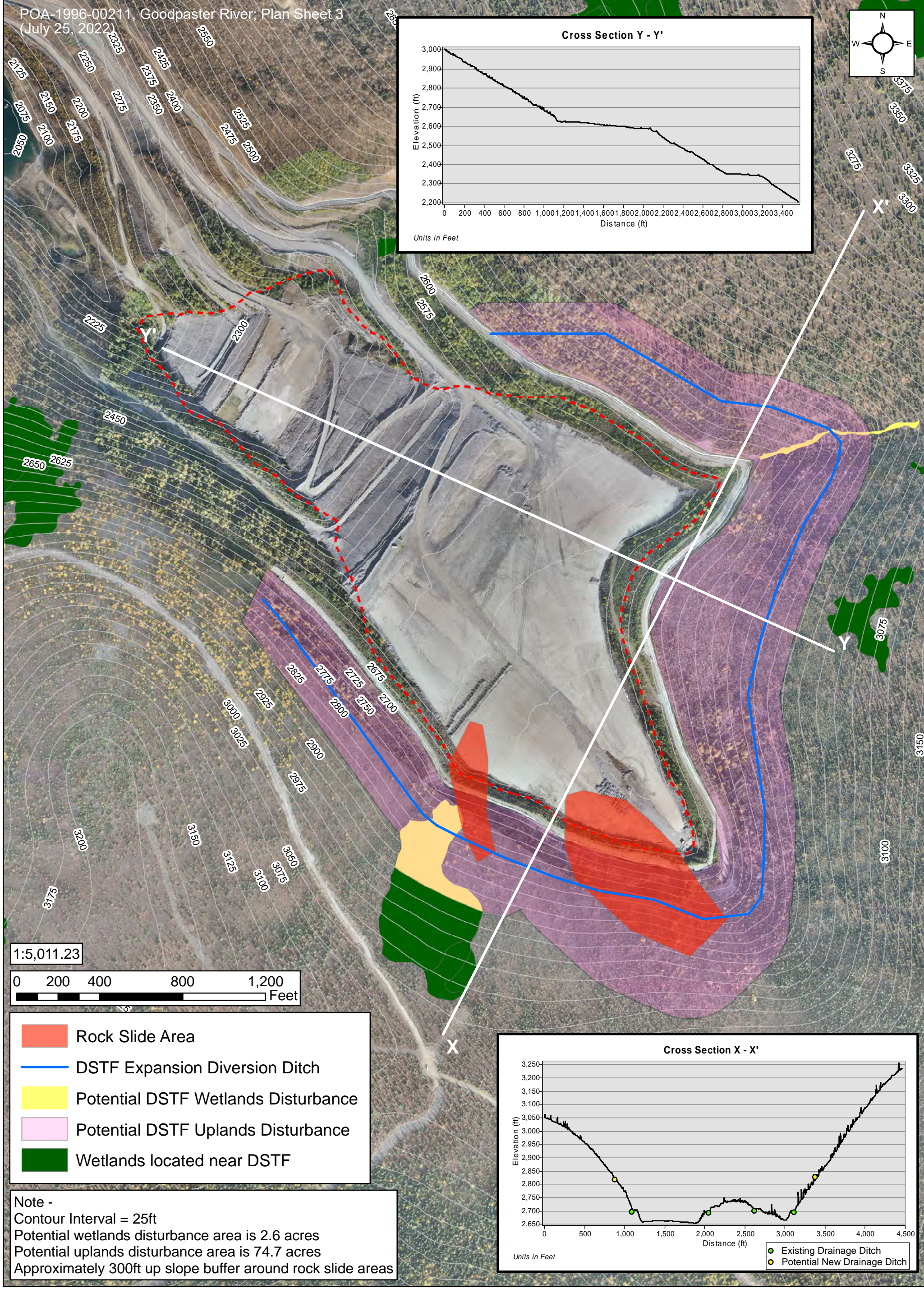
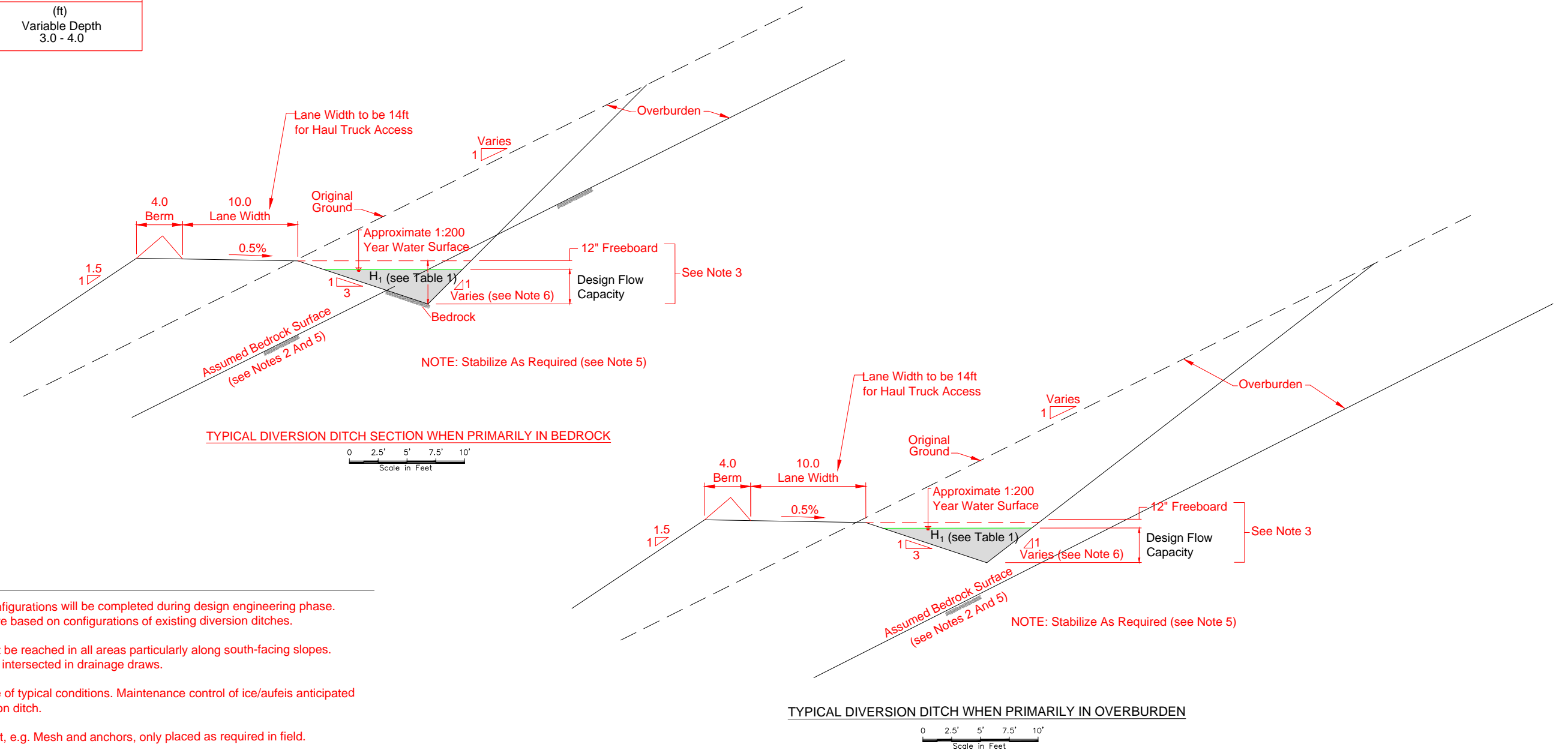


Figure 3
Potential Wetlands and Uplands Disturbance
Drystack Tailings Facility Expansion Project

TABLE 1

STATIONING	TOTAL DEPTH (H ₁)
South Ditch 0+00 to 38+34 (End)	(ft) 2.5
North Ditch 0+00 to 48+68	(ft) Variable Depth 3.0 - 4.0

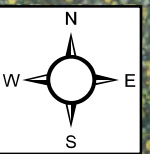


NOTES

1. Detail design of ditch configurations will be completed during design engineering phase. Current configurations are based on configurations of existing diversion ditches.
2. Bedrock surface may not be reached in all areas particularly along south-facing slopes. Bedrock will likely not be intersected in drainage draws.
3. Section depths indicative of typical conditions. Maintenance control of ice/aufeis anticipated in stewardship of diversion ditch.
4. Slope excavation support, e.g. Mesh and anchors, only placed as required in field.
5. Where bedrock not intersected, base of ditch may require geofabric, imported material, soil treatment, shotcrete, or other appropriate method
6. Side slope varies: as an appropriate guide to field fit under the direction of the field engineer - in bedrock use 0.5H:1V; in ripable bedrock use 1H:1V; and in unsupported overburden use 1.5H:1V. Where mesh and soil anchors are used, overburden slopes can be 1H:1V or greater as directed by the engineer.
7. Existing slopes of valley in vicinity of proposed diversion ditches varies between 2.5H:1V and 3H:1V.

	Dry Stack Tailings Facility Expansion Preliminary Study		
	Figure 4 Typical Diversion Ditch Sections		
SRK JOB NO.: 1CS021.000 FILE NAME: 1CS021-000_20MT Diversion Ditch.dwg	POGO MINE	DATE: Feb. 11	APPROVED: LB
		DRAWING: 9.3	

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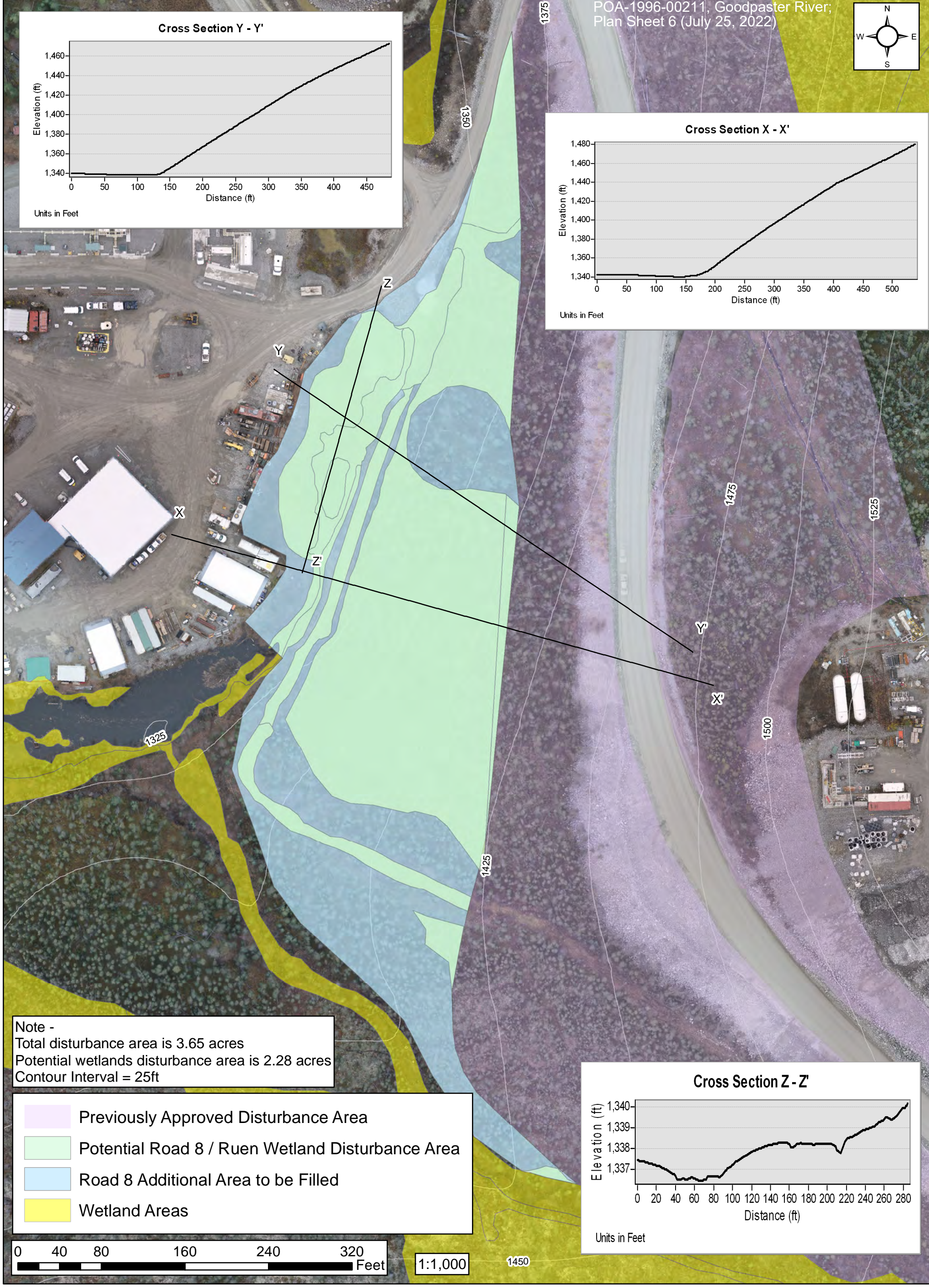
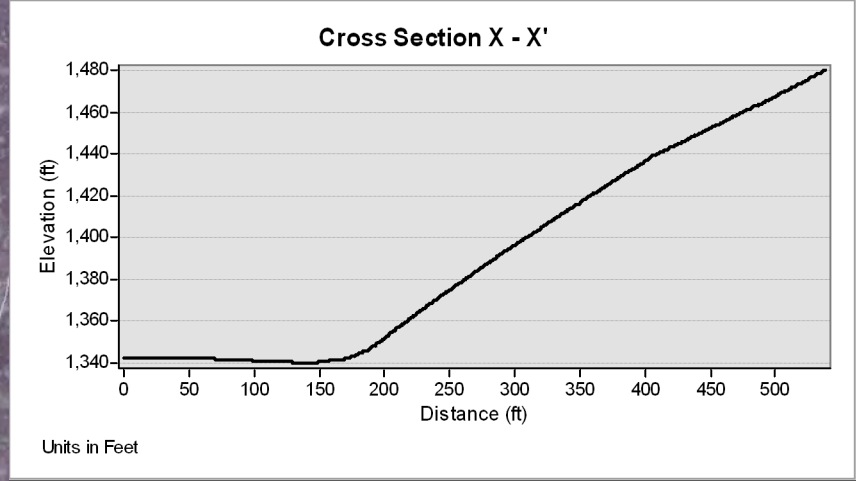
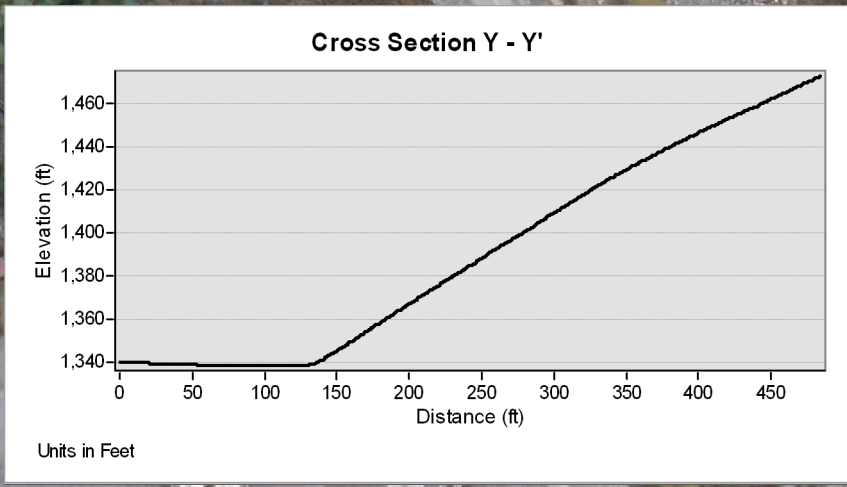
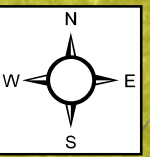


- Previously Approved Disturbance Area
- Potential Road 8 / Ruen Wetland Disturbance Area
- Road 8 Additional Area to be Filled
- Wetland Areas

0 137.5 275 550 825 1,100 Feet 1:3,128.94

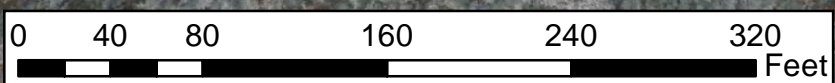
Figure 5
Road 8 / Ruen Additional Laydown Area
2022 Pogo Mine





Note -
Total disturbance area is 3.65 acres
Potential wetlands disturbance area is 2.28 acres
Contour Interval = 25ft

- Previously Approved Disturbance Area
- Potential Road 8 / Ruen Wetland Disturbance Area
- Road 8 Additional Area to be Filled
- Wetland Areas



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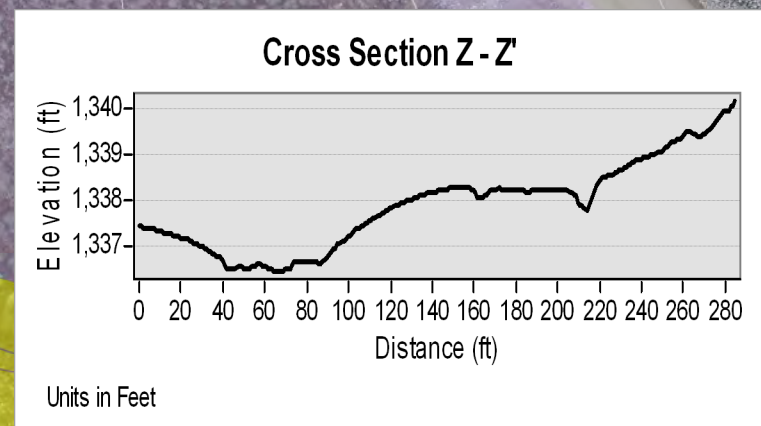
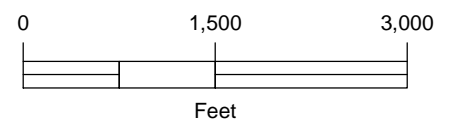
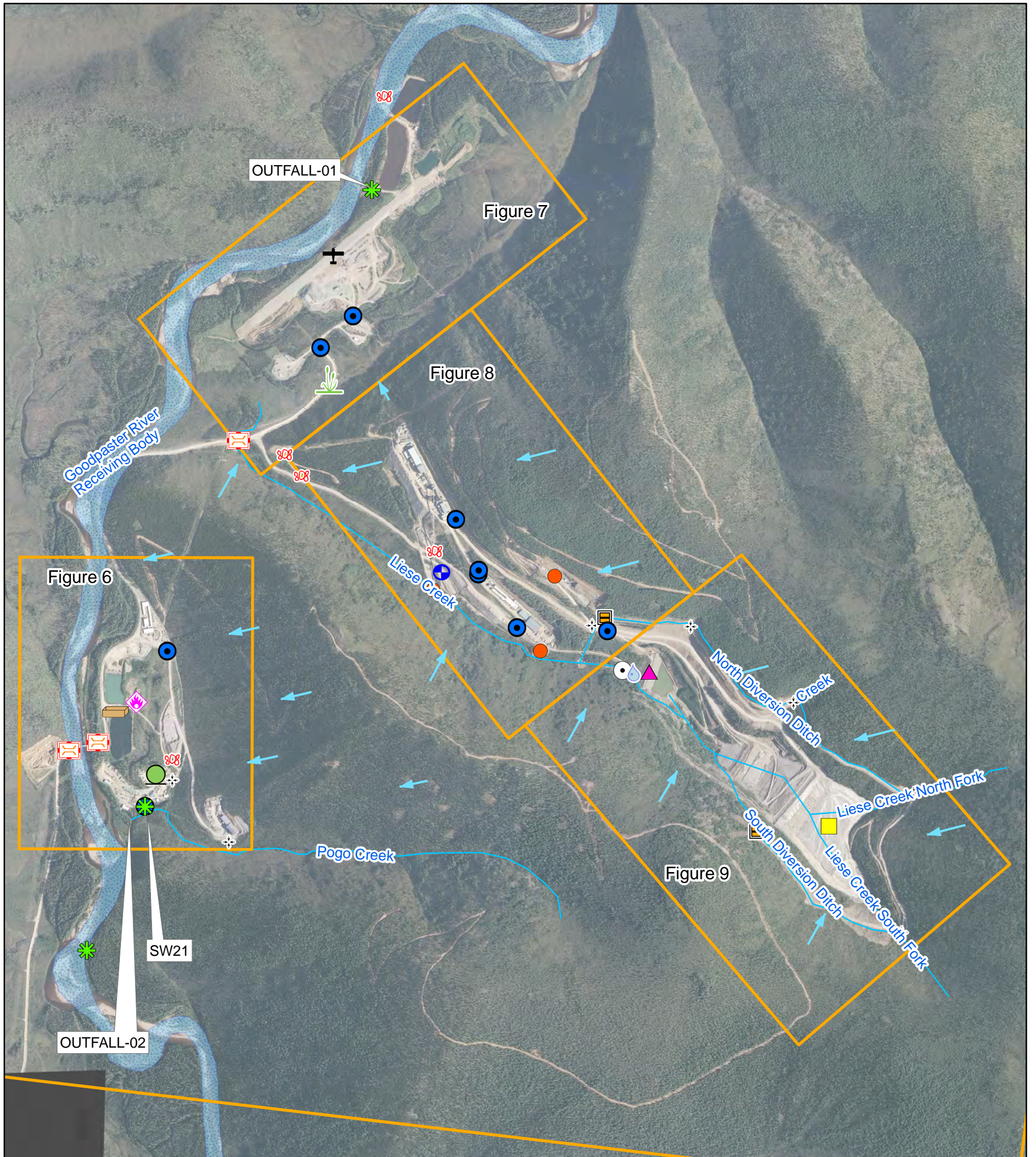


Figure 6
Road 8 / Ruen Additional Laydown Area
2022 Pogo Mine



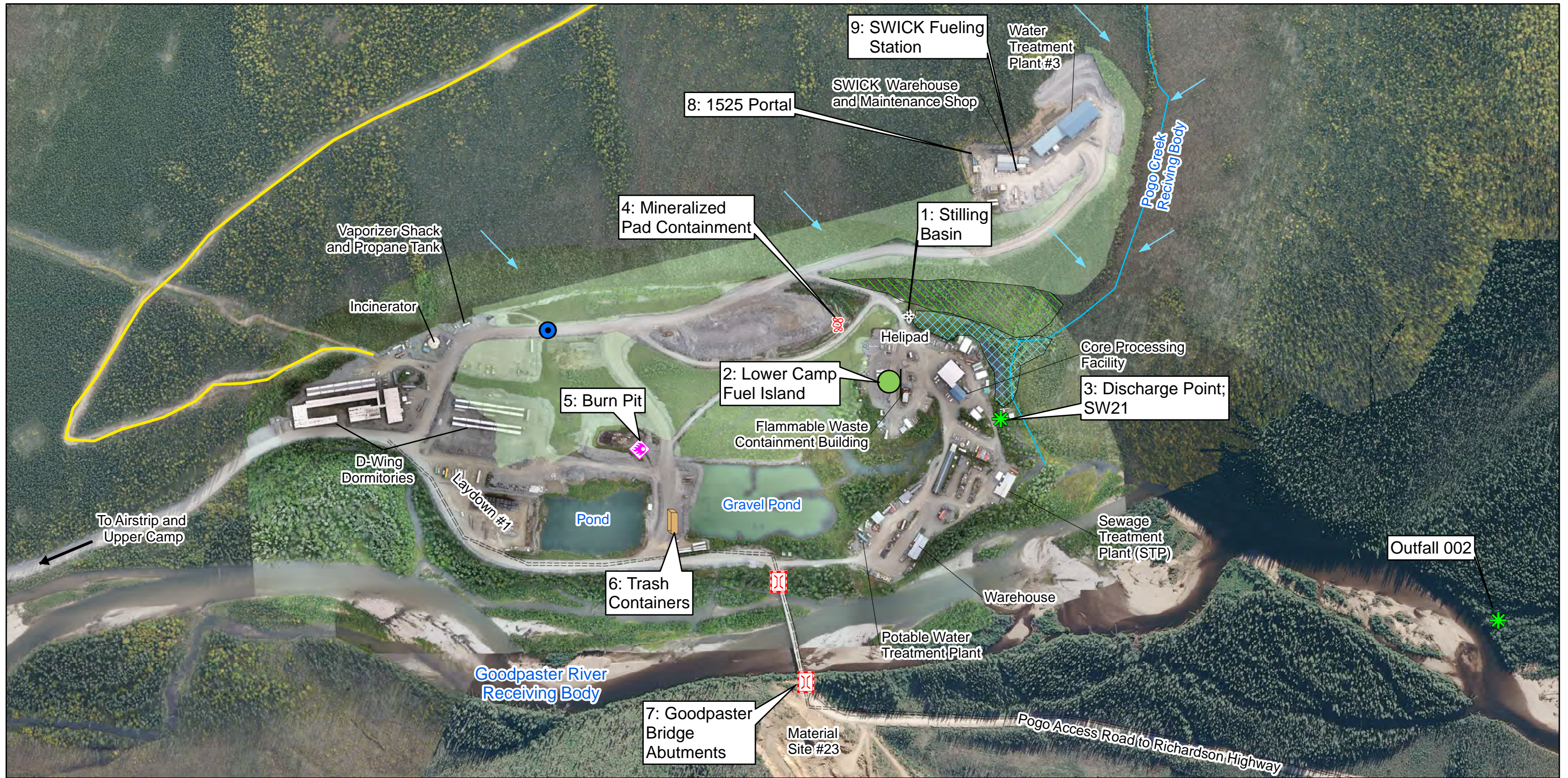
**Stormwater
Pollution Prevention
Plan Maps**






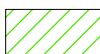










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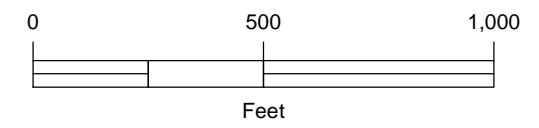
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|--|-----------------------------|--|--------------------------------|--|------------------------|
| | APDES Discharge Point | | Culvert | | Surface Flow Direction |
| | Portal | | RTP | | Creek |
| | Airstrip | | RTP Toe | | Goodpaster River |
| | Burn Pit | | Basin | | Insets form Figure 1 |
| | Drystack Surface | | Seepage Collection Wells | | |
| | Bridge Abutments | | Diversion Ditch Flume Headwall | | |
| | Drainage Channels | | Storm Collection Pond | | |
| | Fuel Area | | Trash Containers | | |
| | Drainage and Sediment Ponds | | | | |

MSGP SWPPP Update Pogo Mine, Alaska	
SWPPP INSPECTION OVERVIEW	
December 2021	100080-003
Figure 7	



LEGEND









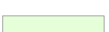
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|  | SW21 Drainage Area |  | Bridge Abutments |  | USACE Permitted Wetlands Disturbance |
|  | Vegetation Filter |  | Fuel Area |  | Creek |
|  | APDES Discharge Point |  | Mineralized Pad Containment |  | South Pogo 1 (SP1); Exploration Road |
|  | Burn Pit |  | Basin |  | Flow Direction |
|  | Culvert |  | Trash Containers | | |

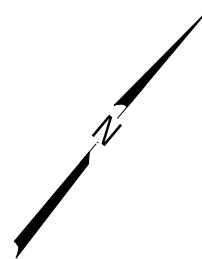
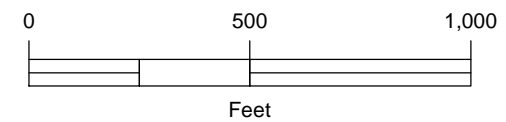


MSGP SWPPP Pogo Mine, Alaska	
1525 PORTAL AREA AND LOWER CAMP	
March 2022	100080-003
Figure 8	



LEGEND

- | | | | | | |
|---|----------|---|-----------------------------|---|--------------------------------------|
|  | Flume |  | Bridge Abutments |  | Culvert |
|  | Outfall |  | Drainage Channels |  | Central Waste Accural Area |
|  | Airstrip |  | Drainage and Sediment Ponds |  | USACE Permitted Wetlands Disturbance |



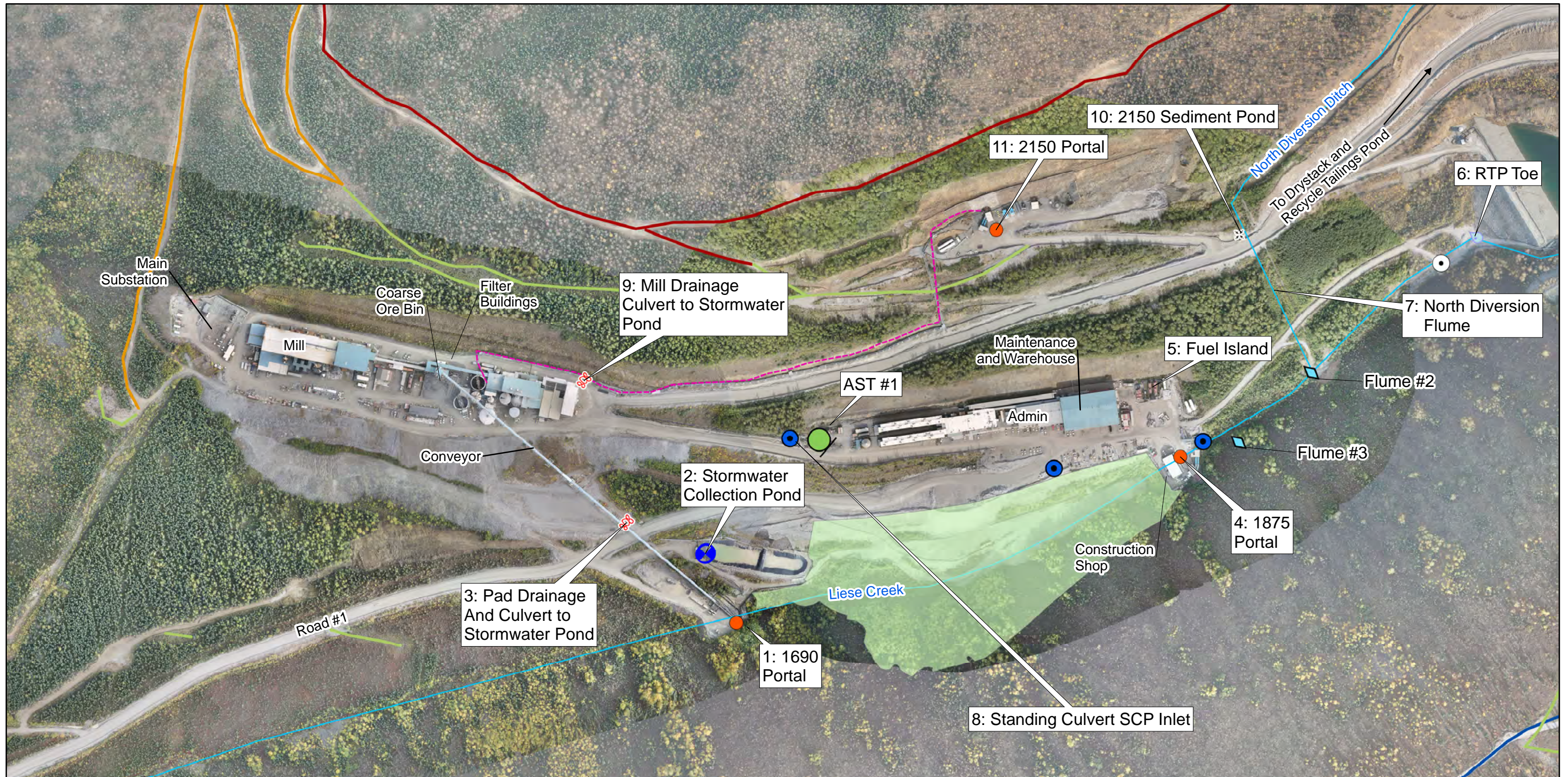
MSGP SWPPP Update
Pogo Mine, Alaska

AIRSTRIP

March 2022

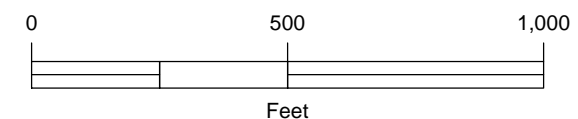
100080-003

Figure 9



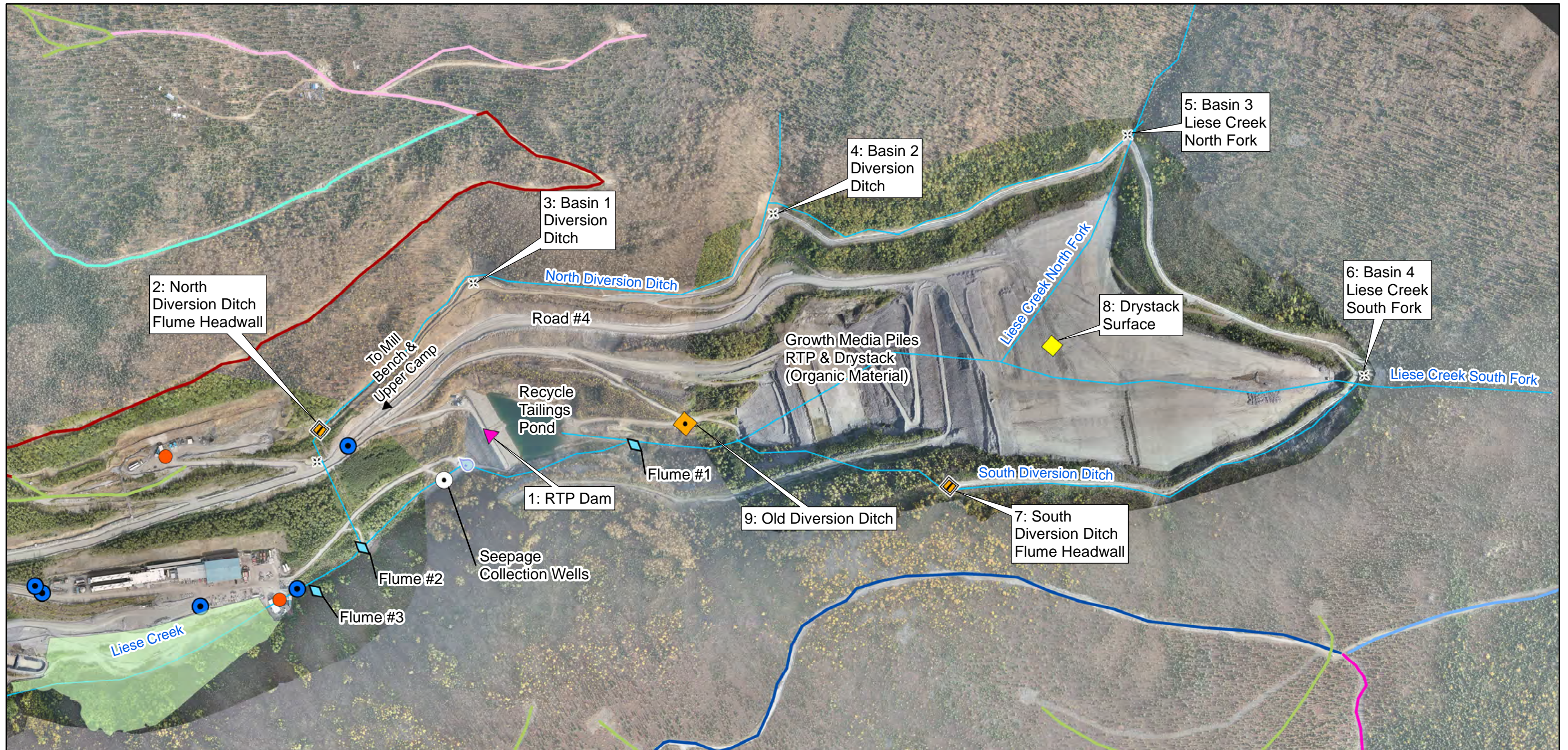
Legend

- | | | | | | | | |
|--|-----------------------------|--|--------------------------------------|--|-------------------|--------------------------|--------------------|
| | AST | | RTP Toe | | Creek | Exploration Roads | |
| | Flume | | Basin | | Paste Pipeline | | East Deep 1 (ED1) |
| | Portal | | Seepage Collection Wells | | East Deep 2 (ED2) | | South Pogo 2 (SP2) |
| | Drainage and Sediment Ponds | | Stormwater Collection Pond | | Reclaimed | | |
| | Culvert | | USACE Permitted Wetlands Disturbance | | | | |



Note: Refer to Figures 10 and 11 for exploration road BMPs

MSGP SWPPP Update Pogo Mine, Alaska	
MILL BENCH AND PERMANENT CAMP AREA	
March 2022	100080-003
Figure 10	



<p>LEGEND</p>		<p>0 500 1,000 1,500 Feet</p>	
<p>USACE Permitted Wetlands Disturbance</p>	<p>Drainage and Sediment Ponds</p>	<p>Seepage Collection Wells</p>	<p>East Deep 2 (ED2)</p>
<p>Old Diversion Ditch</p>	<p>Culvert</p>	<p>Diversion Ditch Flume Headwall</p>	<p>East Deep 3 (ED3)</p>
<p>Flume</p>	<p>RTP</p>	<p>Creek</p>	<p>East Deep 4 (ED4)</p>
<p>Portal</p>	<p>RTP Toe</p>	<p>Exploration Roads</p>	<p>South Pogo (4021)</p>
<p>Drystack Surface</p>	<p>Basin</p>	<p>East Deep 1 (ED1)</p>	<p>South Pogo 2 (SP2)</p>
			<p>South South Pogo (SSP)</p>
			<p>Reclaimed</p>

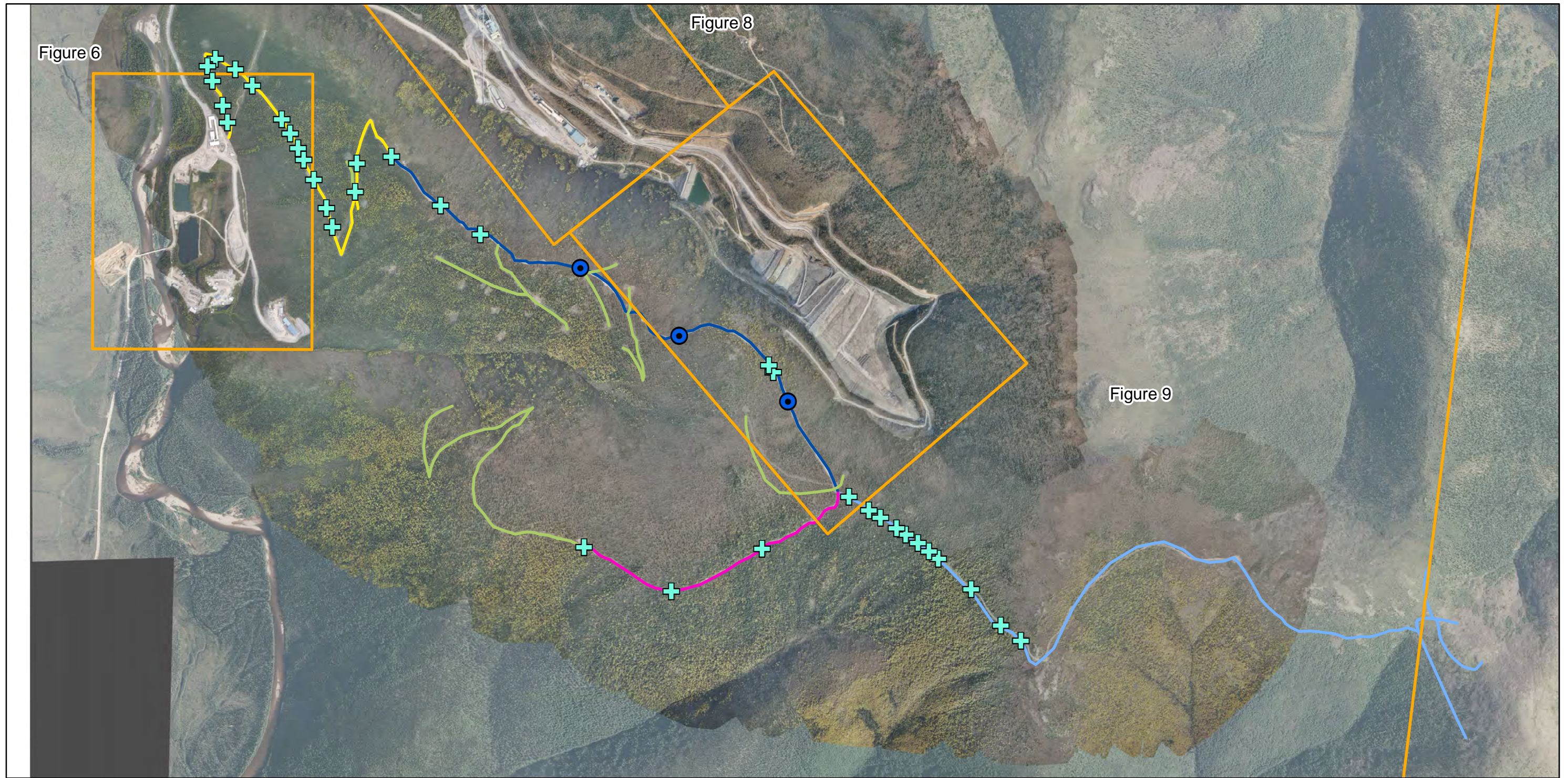
Note: Refer to Figures 10 and 11 for exploration road BMPs

MSGP SWPPP
Pogo Mine, Alaska

RECYCLED TAILINGS POND AND DRY STOCK TAILINGS FACILITY

March 2022 100080-003

Figure 11



LEGEND

Exploration Roads

- South Pogo 2 (SP2)
- South Pogo (4021)
- South Pogo 1 (SP1)
- South South Pogo (SSP)
- Reclaimed
- + Water Bar
- Culvert
- Insets from Figure 1

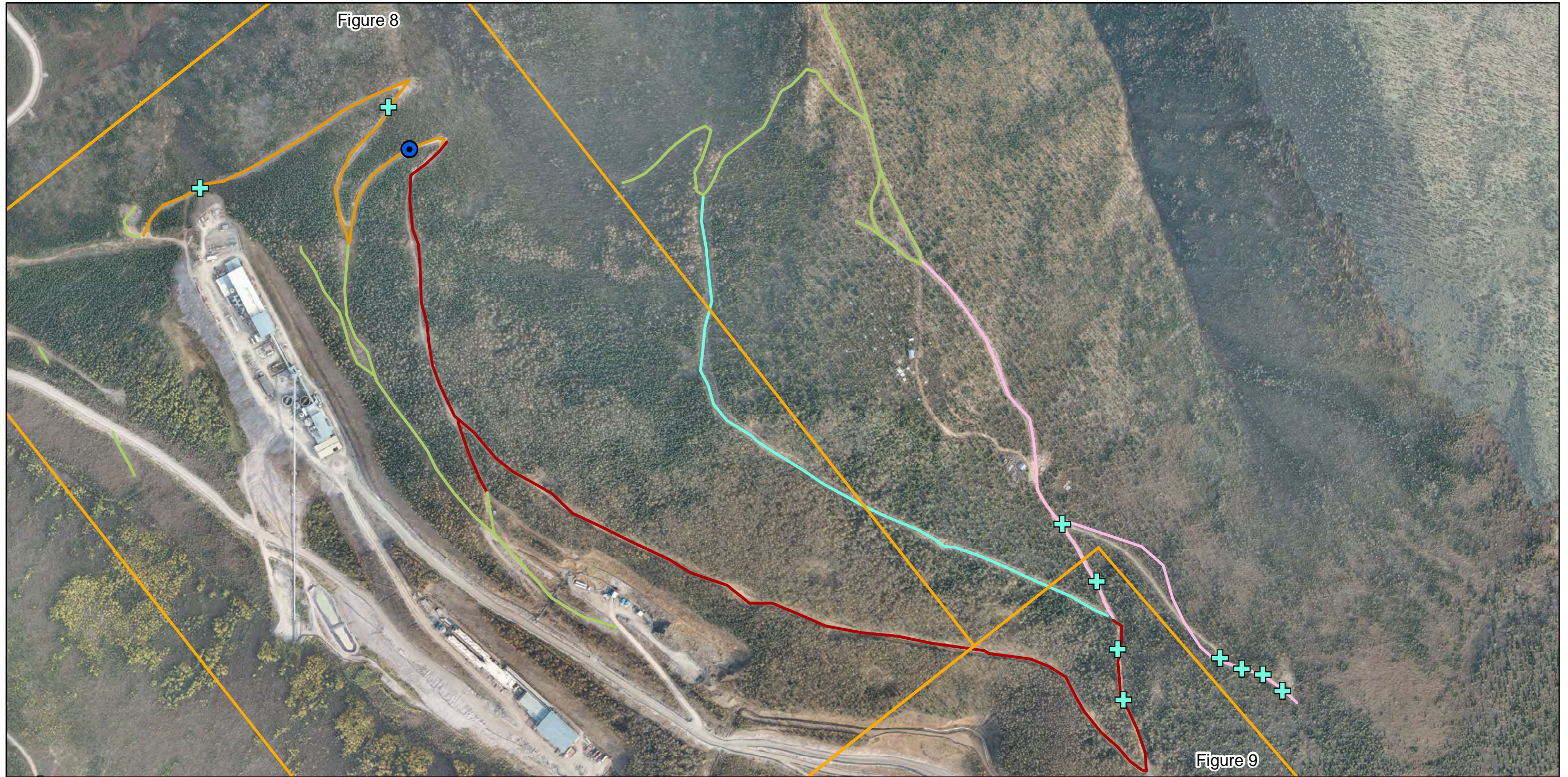
MSGP SWPPP Update
Pogo Mine, Alaska

**EXPLORATION ROADS -
SOUTH POGO**

December 2021

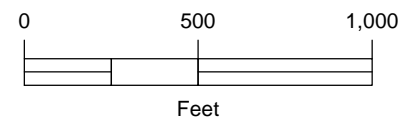
100080-003

Figure 12



LEGEND

- | | | |
|---|--|--|
| Exploration Roads | — East Deep 3 (ED3) | + Water Bar |
| — East Deep 1 (ED1) | — East Deep 4 (ED4) | ● Culvert |
| — East Deep 2 (ED2) | — Reclaimed | Insets from Figure 1 |



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EXPLORATION ROADS - EAST DEEP	
December 2021	100080-003
Figure 13	