

Estelle Gold Project, Alaska

Project Description for Korbel Exploration Trail

Supporting:

U.S. Army Corps of Engineers, Alaska District
Application for Department of the Army Individual Permit

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ACRONYMS AND ABBREVIATIONS

ADF&G	Alaska Department of Fish and Game
AKCM	AK Custom Mining
ft	foot (feet)
LWC	low-water crossing
MLUP	Miscellaneous Land Use Permit
Nova	Nova Minerals Limited
trail	Korbek exploration trail
USACE	United States Army Corps of Engineers
US Gold Mining	US GoldMining, Inc.

1. INTRODUCTION

AK Custom Mining LLC (AKCM) (Nova Minerals Limited [Nova]) is submitting an application for United States Army Corps of Engineers (USACE) Department of the Army Individual Permit (per Title 33 Code of Federal Regulations (CFR) Section 325. This project description for the Korbel exploration trail supports the application form: ENG FORM 4345, SEP 2022¹. This narrative describes construction of a new exploration trail (trail) between the main exploration camp at Whiskey Bravo airstrip and the Korbel prospect.

2. PROJECT DESCRIPTION

The trail is planned to connect the Korbel exploration prospect with the Whiskey Bravo airstrip. The route and state mining claims that would be crossed by the Korbel trail route are shown on Figure 2-1. Legal land descriptions for the Korbel exploration trail route are listed in Table 2-1.

The proposed Korbel exploration trail route avoids existing geohazards, minimizes impacts to wetlands (ABR 2021), and minimizes crossings of fish-bearing streams (ABR 2022 a, b). Typical exploration trail construction profile is depicted in Figure 2-2.

Exploration trail construction will consist of improving approximately 2.9 miles of an existing trail north of the Whiskey Bravo airstrip, constructing 1.4 miles of new exploration trail across US Gold Mining, Inc. (US GoldMining) claims, and 8.12 miles of new exploration trail across AKCM claims following the Portage Creek valley to the Korbel drilling area in the northern part of the Estelle/Oxide claim group (Table 2-2).

The Korbel trail construction will impact approximately 33.7 acres of undisturbed area (Table 2-2). The exploration trail prism will be 30 feet wide with a 15-foot wide driving surface. The existing trail consists of approximately 17 acres of previously disturbed area. Approximately eight cross-drain culverts (18- to 24-inch diameter) will be installed as appropriate to provide slope drainage. All stream crossings will be designed to ensure the safe passage of fish as required by Alaska Statute 16.05.841.

The AKCM and US GoldMining Alaska claims involved in trail development are listed in Table 2-3. AKCM and US GoldMining have signed an Exploration Trail and Airstrip Construction and Maintenance Agreement to allow access and work on US GoldMining claims.

¹ Per email of January 16, 2025 from USACE, Andrew Kastning: The USACE is accepting the application form received January 14, 2025 (Form ENG FORM 4345 SEP 2022). Mr. Kastning acknowledged USACE is still updating the application form for 2025.

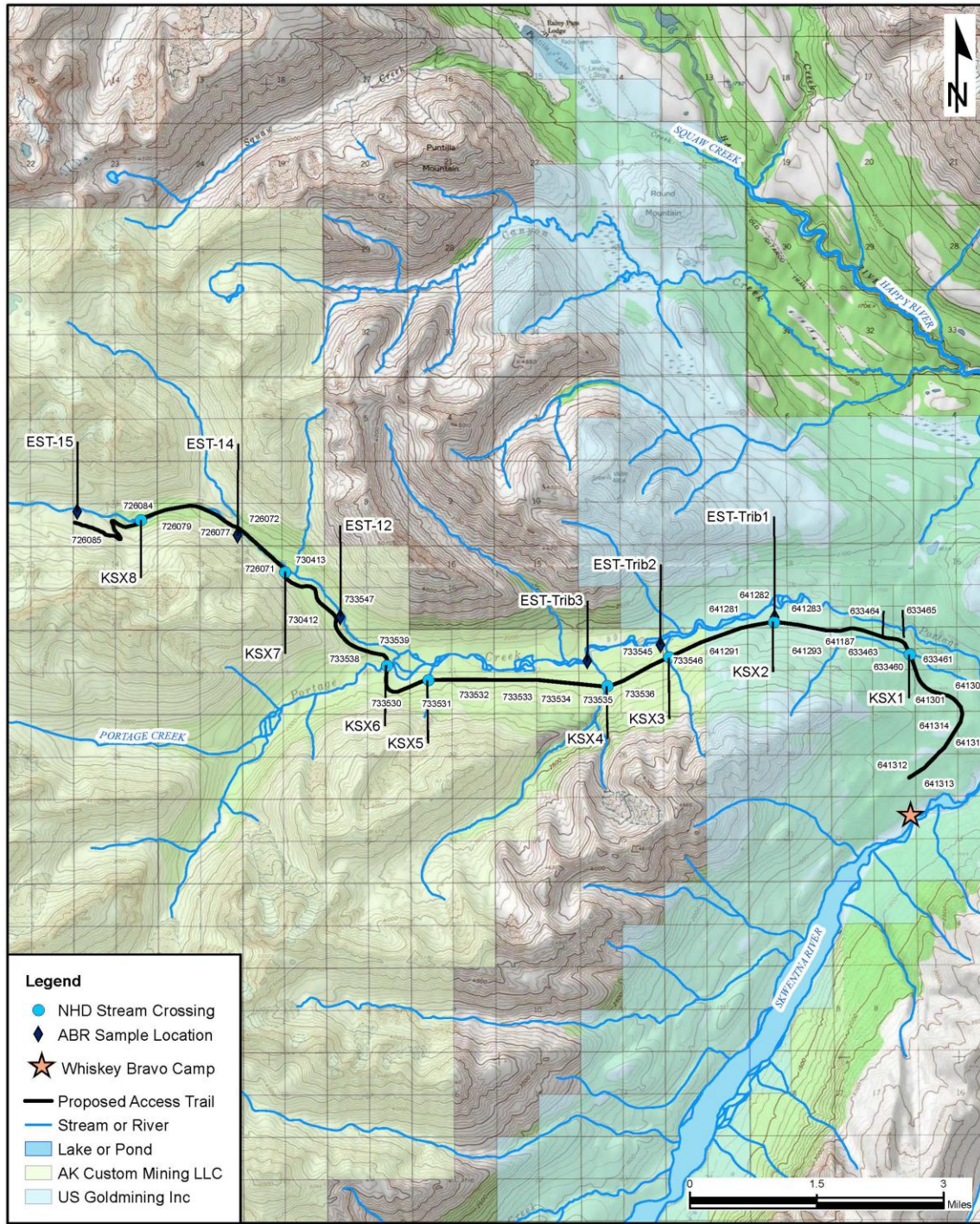


Figure 2-1. Proposed Korbek Exploration Trail Route, Stream Crossings, and Mining Claims

Table 2-1. Legal Land Description – Proposed Korbel Exploration Trail Route (All Seward Meridian)

Township	Range	¼, ¼ Section(s)	Section
22N	18W	SW ¼, SW ¼ SE ¼, SW ¼ SW ¼, SE ¼ SE ¼, SE ¼	18
22N	18W	NE ¼	19
22N	18W	NW ¼, NW ¼ NE ¼, NW ¼ NW ¼, NE ¼, NE ¼, NE ¼ SE ¼, NE ¼	20
22N	18W	NW ¼, SW ¼ SE ¼, SW ¼	21
22N	18W	NE ¼, NW ¼ SE ¼, NW ¼ NW ¼, SW ¼	28
22N	18W	SE ¼, NE ¼	29
22N	19W	SW ¼, SW ¼	07
22N	19W	SW ¼, SW ¼	17
22N	19W	NE ¼, NW ¼ SW ¼, NE ¼ SE ¼, SE ¼	18
22N	19W	NW ¼, NW ¼ NE ¼, NW ¼ SW ¼, NE ¼, NE ¼, SE ¼ SE ¼, SE ¼	20
22N	19W	NW ¼, SW ¼ NE ¼, SW ¼ NW ¼, SW ¼	21
22N	19W	NW ¼, SW ¼ NE ¼, SW ¼ NE ¼, SE ¼ NW ¼, SE ¼	22
22N	19W	NW ¼, SW ¼ NE ¼, SW ¼ NW ¼, SE ¼ NE ¼, NE ¼	23
22N	19W	SW ¼, NW ¼ NW ¼, NW ¼ NE ¼, NW ¼ NW ¼, NE ¼ NE ¼, NE ¼	24
22N	20W	SW ¼, SW ¼ SW ¼, SE ¼ NW ¼, SE ¼	11
22N	20W	NW ¼, SW ¼ NE ¼, SW ¼ NW ¼, SE ¼ SE ¼, SW ¼	12

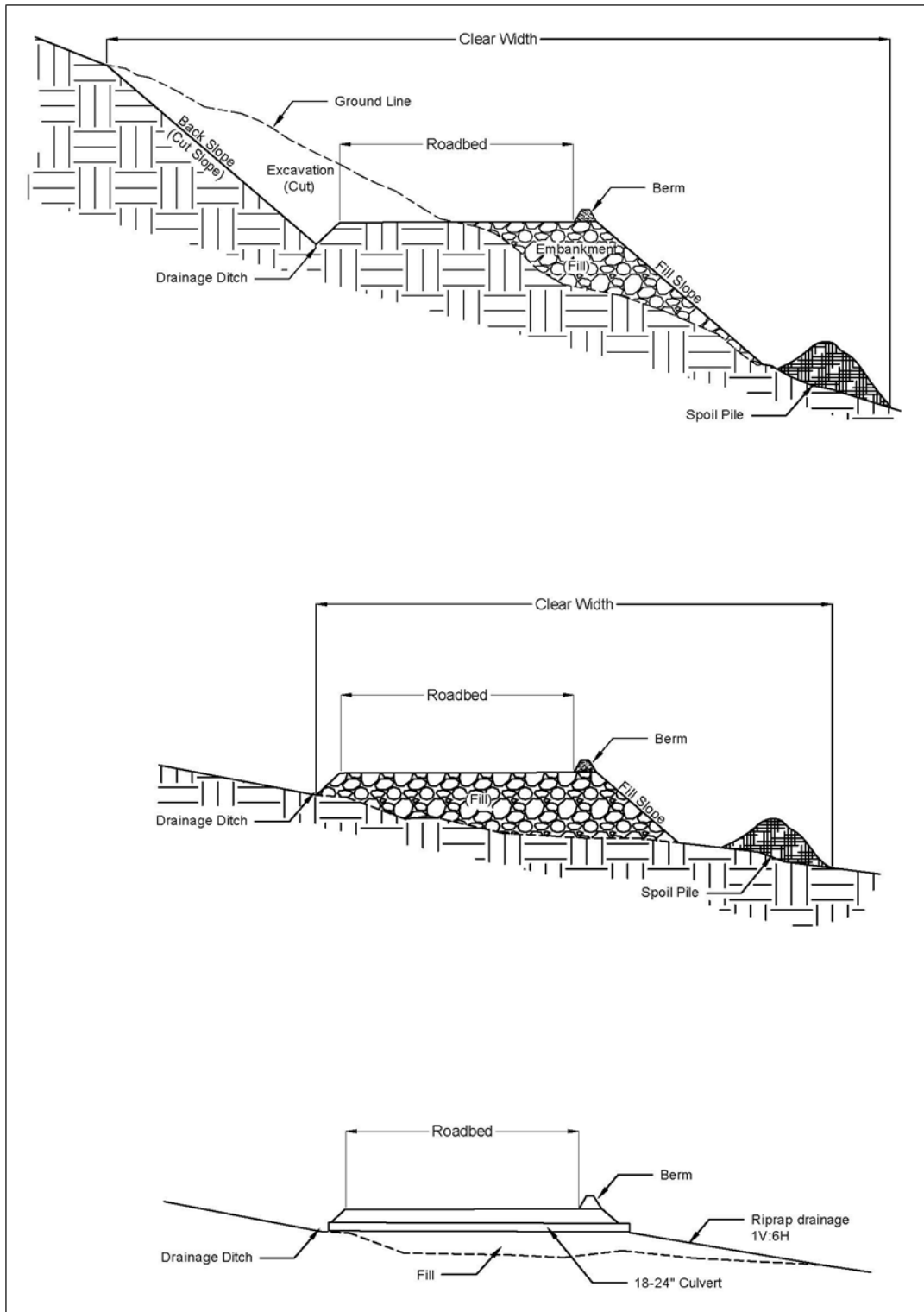


Figure 2-2. Proposed Korbel Exploration Trail – Typical Construction Profiles

Table 2-2. Proposed Korbel Exploration Trail – Segment Lengths and Area Affected

Korbel Access Exploration Trail Route – Area Affected*		
Mining Claims Affected	Length of Route (miles)	Area (acres)
AK Custom Mining	9.27	33.70
US GoldMining, Inc.	4.60	16.72
Total	12.42	50.43

*Area is based on 30-foot wide roadbed.

Table 2-3. AKCM and US GoldMining Claims Affected by Korbel Exploration Trail

AKCM	US GoldMining
ADL 726071	ADL 633460
ADL 726072	ADL 633461
ADL 726077	ADL 633463
ADL 726079	ADL 633464
ADL 726084	ADL 633465
ADL 726085	ADL 641187
ADL 733530	ADL 641281
ADL 733531	ADL 641282
ADL 733532	ADL 641283
ADL 733533	ADL 641291
ADL 733534	ADL 641293
ADL 733535	ADL 641301
ADL 733536	ADL 641302
ADL 733538	ADL 641312
ADL 733539	ADL 641313
ADL 733545	ADL 641314
ADL 733546	ADL 641316
ADL 733547	
ADL 730412	
ADL 730413	

3. ALTERNATIVES CONSIDERED

To date, all Korbel exploration activities have been helicopter-supported from the Nova Minerals camp at Whiskey Bravo airstrip. Exploration drilling has identified prospects which warrant further exploration to include strategic metals in the greater Korbel area.

The purpose of the Korbel trail is to provide reliable and safe access to the Korbel Prospect. The need for the Korbel trail is to need to further delineate economically viable deposits of precious and strategic metals in the Korbel Prospect. The following alternatives were evaluated.

3.1. Alternative 1: No Action

Alternative 1 is continued exploration support via helicopter from Whiskey Bravo airstrip. To date, exploration has been helicopter-supported. Each drill site set up, operation, and reclamation requires multiple helicopter flights from Whiskey Bravo airstrip to transport drill pad timbers, drill rigs, fuel, and personnel, and to remove the drill, equipment, and pad materials during reclamation. Alternative 1 does meet the purpose or need of the project. The costs of continued helicopter support will reduce the available capital for further delineating and evaluating the commercial value of the Korbel Prospect.

3.2. Alternative 2: Winter-Only Trail

Exploration is conducted only during the summer. It is not possible to conduct exploration activities at the Korbel Prospect in the winter because of snow cover, inclement weather, reduced daylight hours, avalanche danger, safety concerns for winter travel, and maintaining the camp facilities and equipment in freezing conditions. For these reasons, Alternative 2 does not meet the purpose or need of the project.

3.3. Alternative 3: Construction of the Korbel Trail (Proposed Alternative)

Alternative 3 will construct the Korbel trail to provide reliable summer access for exploration in the Korbel prospect. Alternative 3 meets the purpose by providing a reliable surface transportation corridor to the Korbel prospect and meets the project need to further delineate economically viable deposits of precious and strategic metals in the Korbel Prospect.

The proposed route has evolved since 2022 to avoid potential impacts to the environment as much as practicable. The rationale and development of the proposed route is described below.

A preliminary trail route was proposed in 2022 and revised in 2023 and 2024 to avoid wetlands as much as practicable and minimize impacts to existing wetlands. The previous routes and rationale for modifications are described below.

2022 Preliminary Route

In 2022, a preliminary route for the Korbel trail was developed which followed a contour of the valley slope from Whiskey Bravo airstrip to the crossing at Portage Creek. The 2022 route was deemed impractical due the width and depth of five gully stream crossings that would have required extensive cut-and-fill construction or long-span bridges.

2023 Route Revision

Field surveys were conducted along the proposed trail in 2023 which resulted in a new alignment downslope of the proposed 2022 route to avoid the gully stream crossings. Nova consulted with the Alaska Department of Fish and Game (ADF&G) regarding methods for the crossings. Nova elected to propose timber bridge crossings instead of culverts between Whiskey Bravo airstrip and Portage Creek to minimize impacts to fish bearing streams and facilitate safe fish passage.

2024 Route Revision

Nova conducted light detection and ranging (LiDAR) aerial surveys of the route in summer 2024. Based on consultation with USACE Alaska District, the 2023 route was further adjusted to avoid approximately 2.5 acres of wetlands compared to the 2023 route.

Alternative 3 minimizes or reduces:

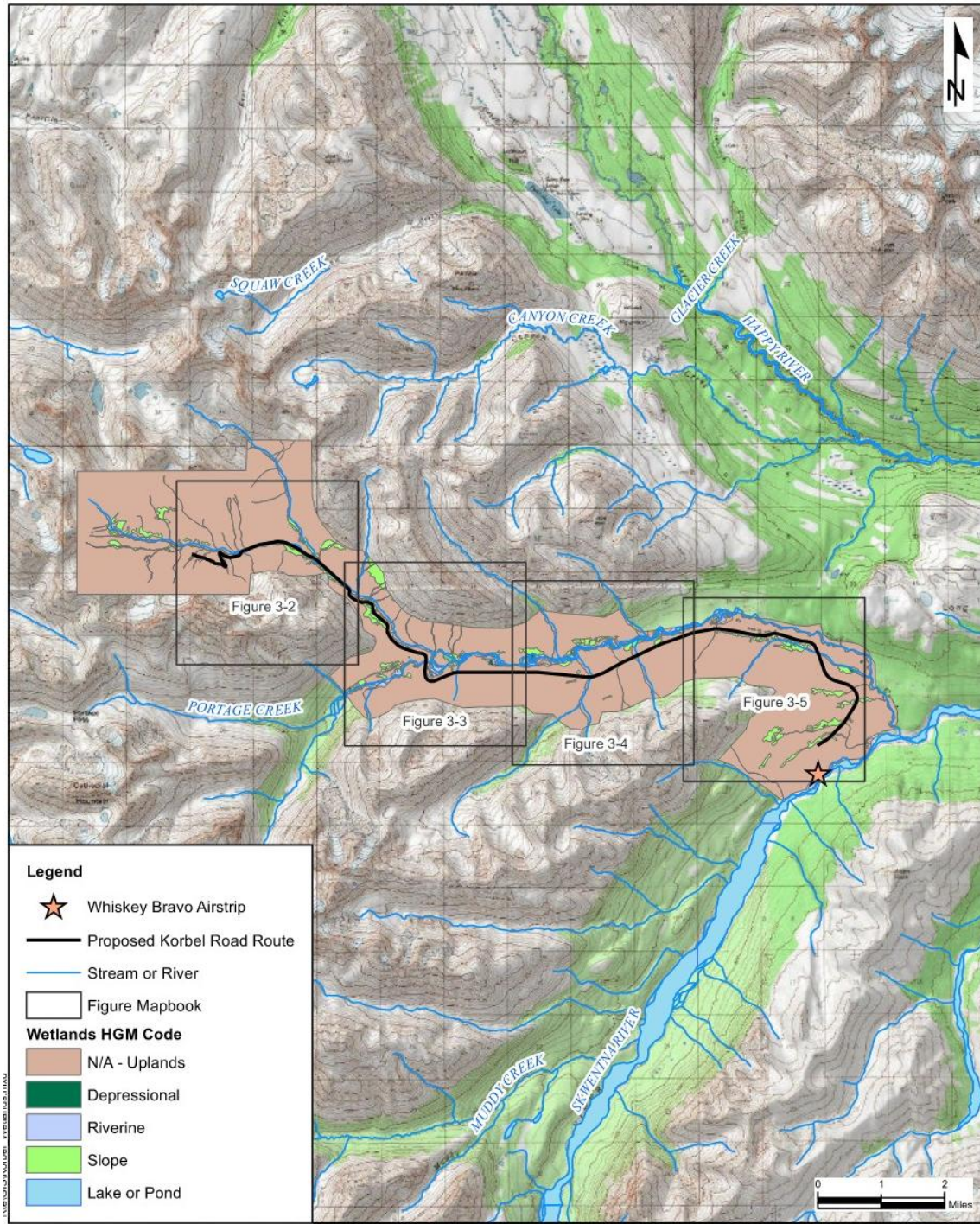
- trail construction in very steep areas
- need for fill
- impacts to streambed and fish bearing streams
- impacts to fish and fish passage
- impacts to wetlands
- erosion and sedimentation.

4. ENVIRONMENTAL CONSIDERATIONS

4.1. Wetlands

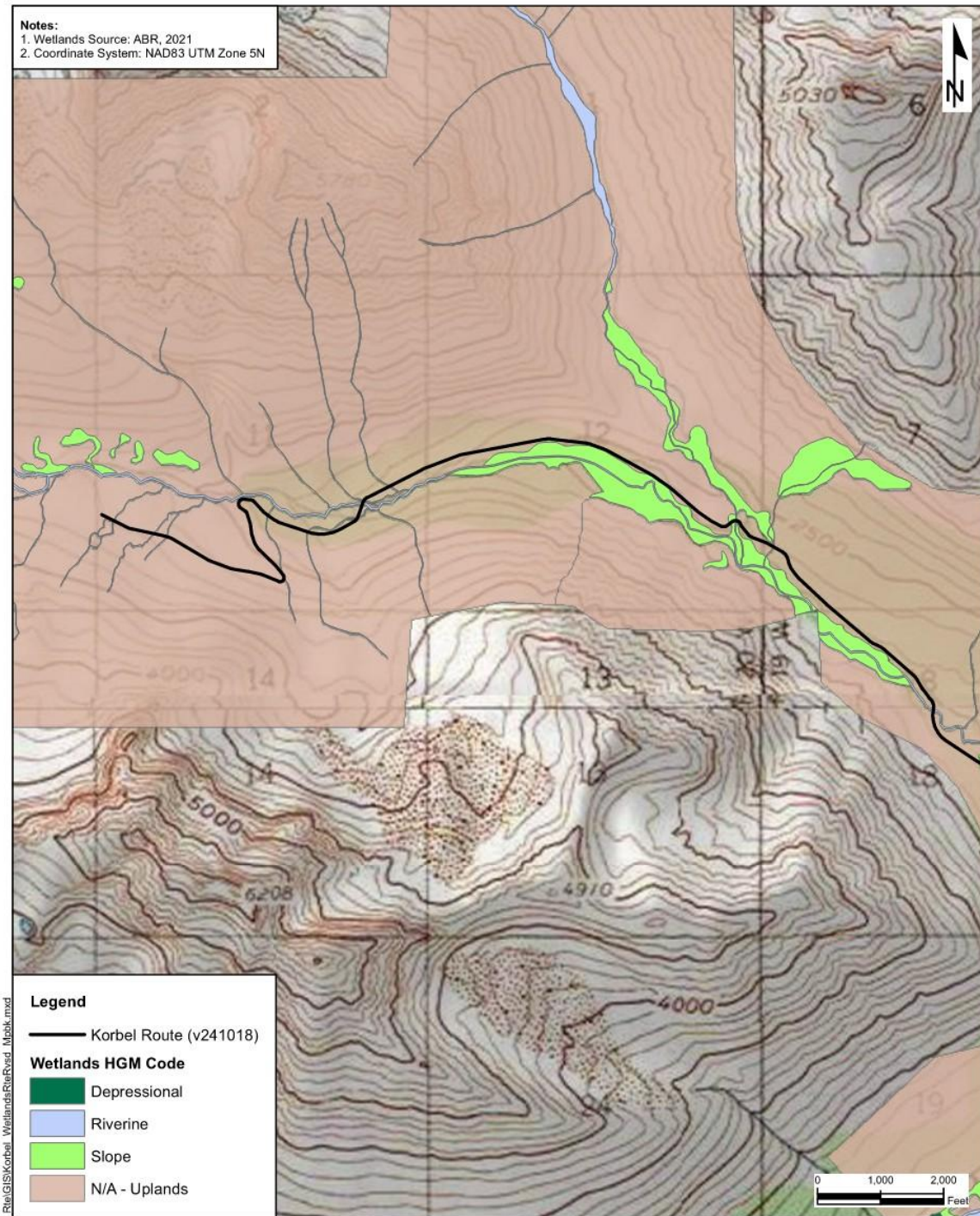
Wetland desktop mapping and subsequent field surveys have been conducted along the proposed trail route (ABR 2021). The route is designed to avoid or minimize impacts to existing wetlands (Figure 3-1). Wetlands will be field-verified prior to construction and the route adjusted as appropriate to further avoid or minimize impacts. The route revisions reduced potential impact to wetlands from 5 acres to the current 2.52 acres.

The trail will be constructed and maintained in accordance with Title 33 CFR Section 323.4, Discharges Not Requiring Permits. The construction and maintenance will be in accordance with 33 CFR 324.4 Part (6) which requires that roads be constructed and maintained in accordance with Best Management Practices (BMPs) to assure that flow and circulation patterns and chemical and biological characteristics of waters of the United States (WOTUS) are not impaired, that the reach of the WOTUS is not reduced, and that any adverse effect on the aquatic environment will be otherwise minimized.



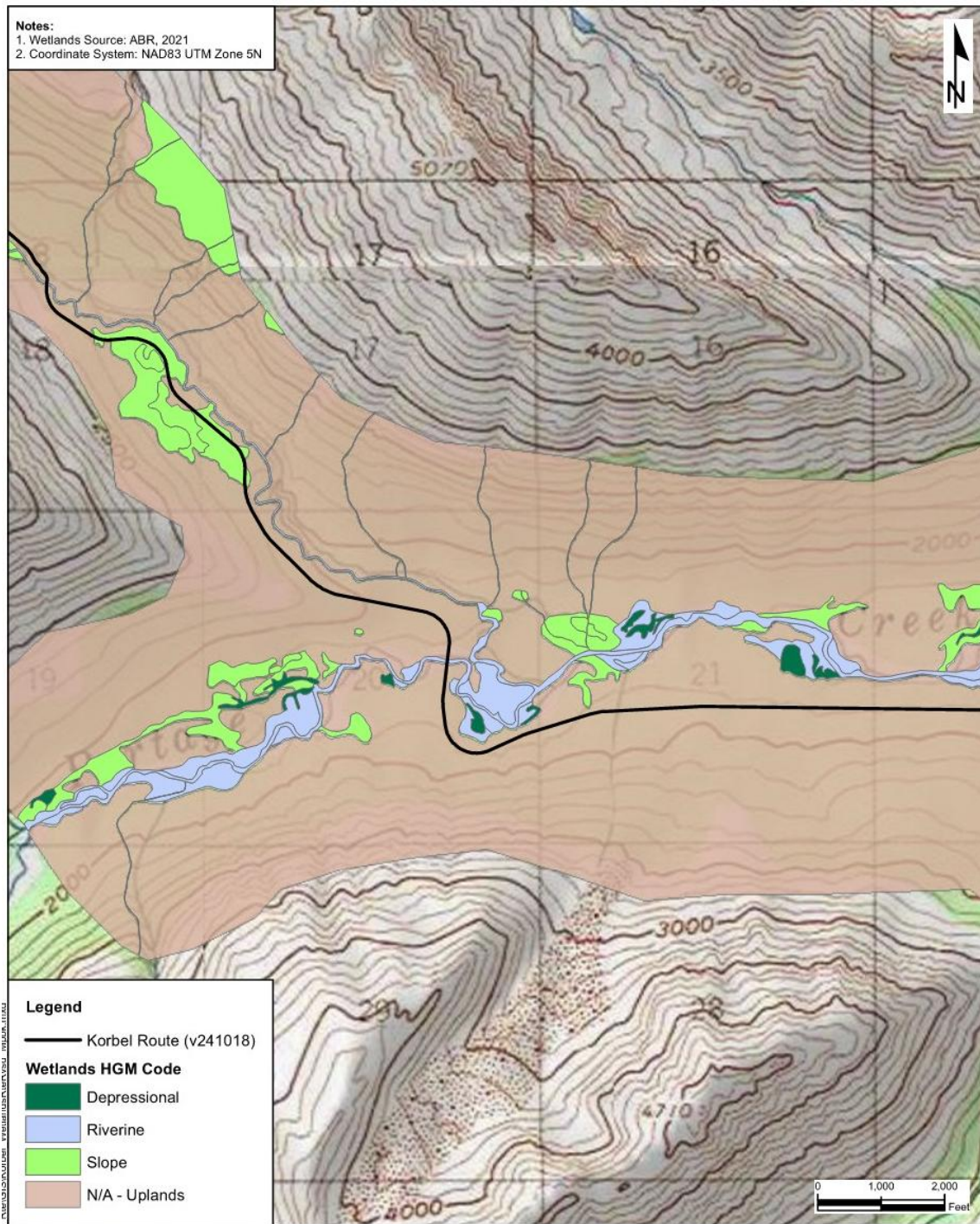
Note: See Figure 3-2 through Figure 3-5 for insets shown in Figure 3-1.

Figure 3-1. Mapped Wetlands along the Proposed Korbel Trail Route



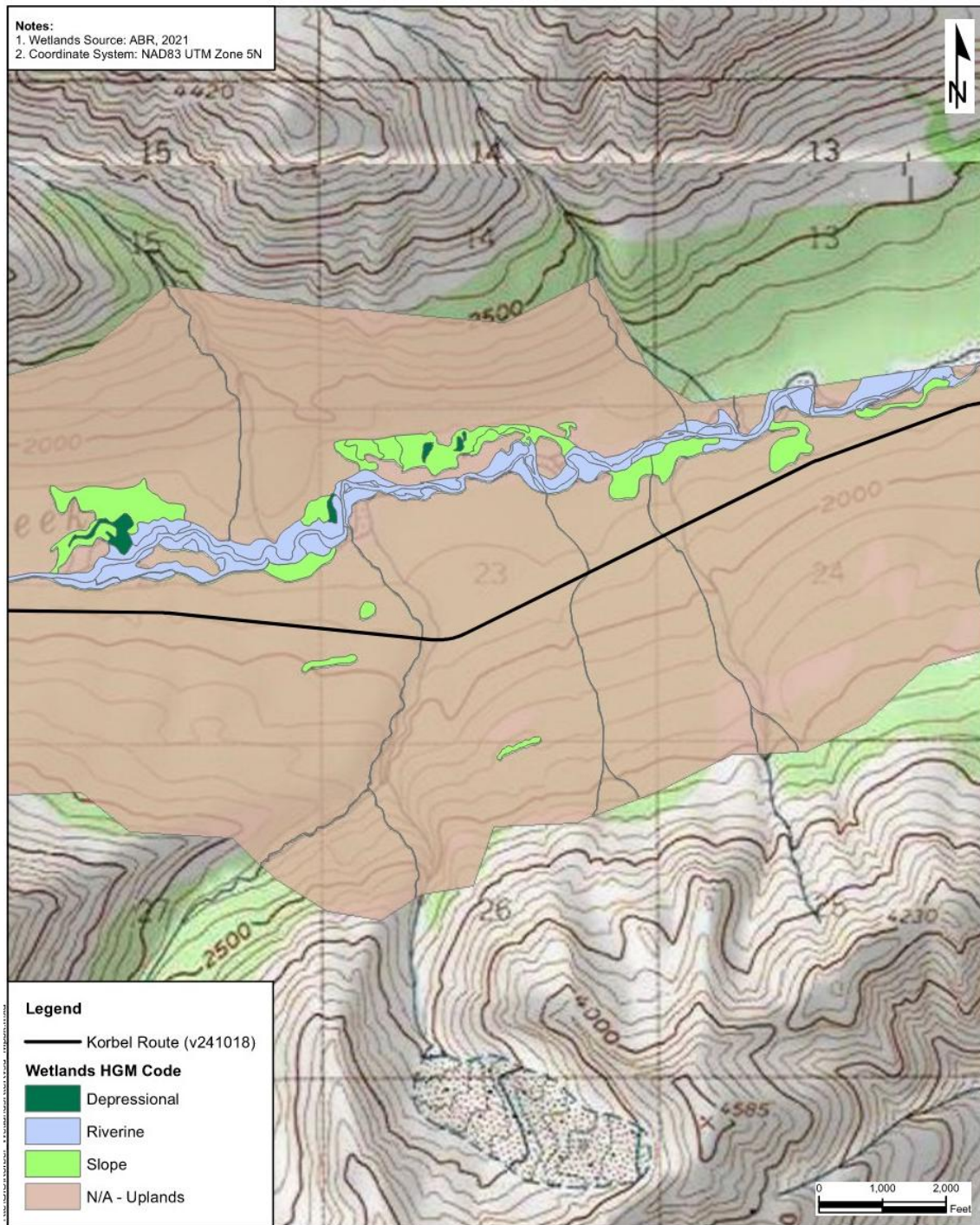
Note: See Figure 3-1 for location of Figure 3-2.

Figure 3-2. Mapped Wetlands Korbek Trail Route, West End



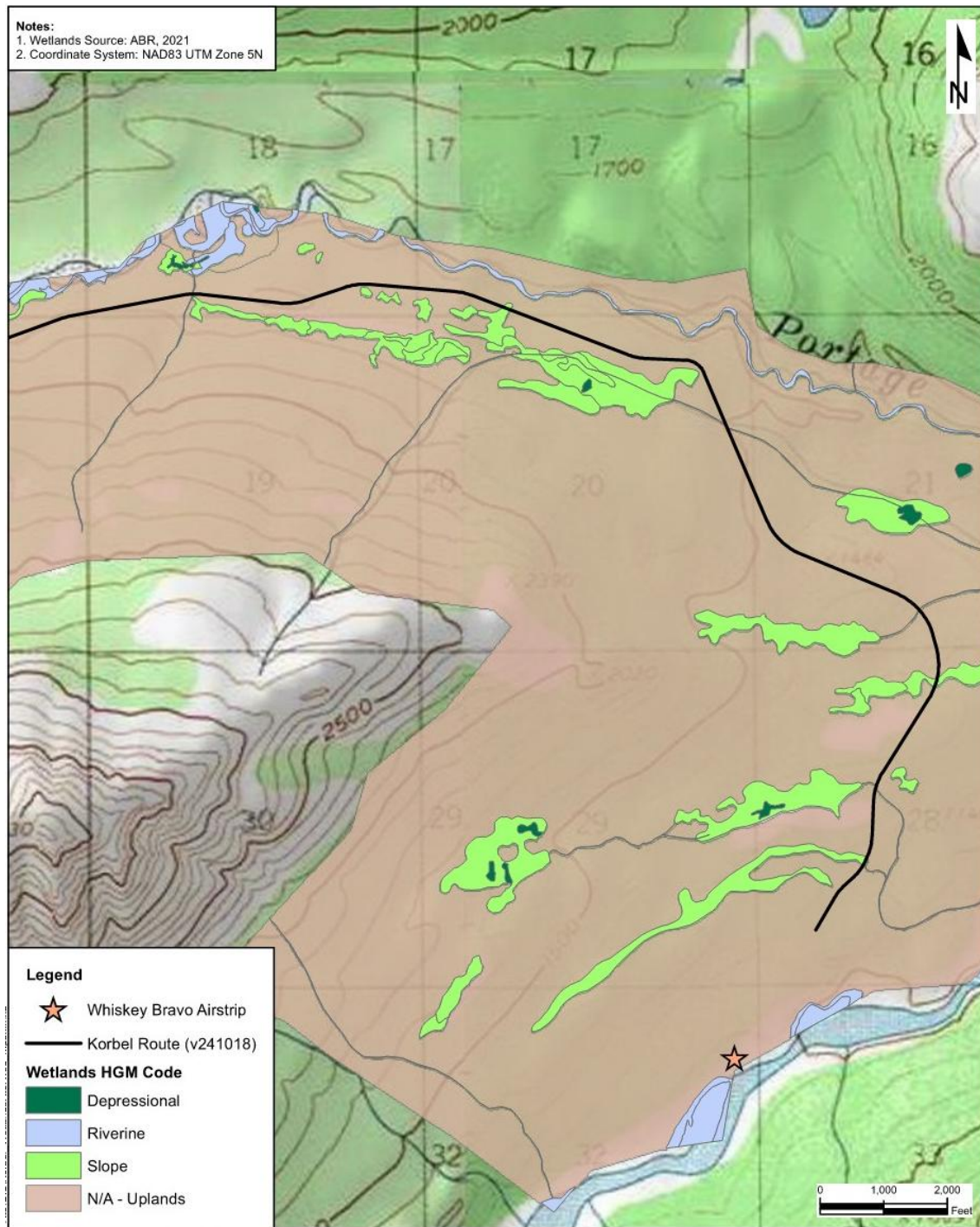
Note: See Figure 3-1 for location of Figure 3-3.

Figure 3-3. Mapped Wetlands Korbel Trail Route



Note: See Figure 3-1 for location of Figure 3-4.

Figure 3-4. Mapped Wetlands Korbek Trail Route



Note: See Figure 3-1 for location of Figure 3-5.

Figure 3-5. Mapped Wetlands Korbel Trail Route, East End

The BMPs will follow requirements as described in the Alaska Department of Environmental Conservation Stormwater Guide (ADEC, Division of Water 2011). The BMPs will be implemented to prevent restriction of expected flows, prevent disruption of the migration or other movement of aquatic life inhabiting the water body.

4.2. Stream Crossings

There are eight stream crossings associated with the proposed alignment (Figure 2-1, Table 3-1). None of the streams have been designated by ADF&G as important for spawning, rearing, or migration of anadromous fish.

Timber bridges will be installed at crossings KXS1 through KXS5 (Table 3-1). A low-water crossing (LWC)/ford will be installed across Portage Creek at KXS6. Final locations of KXS7 and KXS8 will be field-determined and crossed with either timber bridges or LWCs. The LWCs will be constructed by minor contouring of the existing substrates to provide a safe driving surface. Fish passage may be temporarily blocked during bridge and LWC construction. ADF&G Title 16 Fish Habitat Protection Permit applications will be in accordance with the BMPs for stream crossings (ADF&G 2021).

Field verification samples for fish presence or absence at stream crossings were conducted during summers 2021 and 2022 (ABR 2022 a, b) and found Dolly Varden in KXS2, Portage Creek and the North Fork of Portage Creek along the trail alignment (Figure 2-1 and Table 3-2). No fish were found in KXS3 or KXS 4. Crossings KXS 1 and KXS 5 were not sampled due to access limitations.

Table 3-1. Legal Land Description of Stream Crossings and Crossing Type

Proposed Korbel Trail Stream Crossings*				
Stream	X_N83*	Y_N83*	Crossing Type	Legal Description
KSX1	-152.602309	61.984769	Bridge	S022N018W20, SE/NE
KSX2	-152.651533	61.990427	Bridge	S022N018W18, SE/SE
KSX3	-152.689748	61.984494	Bridge	S022N019W24, SW/NW
KSX4	-152.712145	61.979611	Bridge	S022N019W23, NE/SW
KSX5	-152.77713	61.980752	Bridge	S022N019W21, NW/SW
KSX6	-152.792108	61.983283	LWC	S022N019W20, SE/NE
KSX7	-152.829015	61.999258	LWC	S022N019W18, SW/NE
KSX8	-152.881388	62.008235	LWC	S022N020W11, SE/SE

*See Figure 2-1 for stream locations along the proposed trail route.
 LWC = Low-Water Crossing

Table 3-2. Verification of Fish Presence along Proposed Korbel Trail Route

Verification Location			Fish Status
Site	X_N83*	Y_N83*	
EST-Trib1	-152.651376	61.991239	Dolly Varden
EST-Trib2	-152.692916	61.986659	None
EST-Trib3	-152.719426	61.983949	None
EST-12	-152.809006	61.991629	Dolly Varden
EST-14	-152.84628	62.0056	Dolly Varden
EST-15	-152.904516	62.009689	None

Source: ABR 2022 a, b

5. TIMELINE AND RECLAMATION MEASURES

5.1. Timeline

It is expected construction of the Korbel exploration trail would take one season beginning in 2025. The trail is expected to be used for more than three years after construction is completed.

AKCM will implement concurrent reclamation and disturbance and reclamation will be measured, documented, and reported for each exploration year in the annual exploration/reclamation report required by Alaska Department of Natural Resources for existing Multiple Land Use Permit 3042. The State Bond Pool will be updated accordingly.

5.2. Erosion Control

All topsoil and vegetation that is removed will be stockpiled on the downslope parallel to drill pads or access trails to prevent surface water runoff. Surface water runoff from trails will be diverted away via spoon drains or other forms of water diversion methods to avoid erosion damage and to prevent sediment transport into water bodies. Stockpiled topsoil and vegetation material will be later used to stabilize the road prism through impacted wetlands.

When crossing waterbodies or drainage lines, culverts may be used and crossing in a manner that does not increase the potential for erosion of the waterbody or drainage line banks. AKCM will avoid driving over riparian vegetation on the banks of streams and drainage lines.

6. OPERATORS

The following operators will be on site for siting and construction of the Korbel trail.

- Yukuskokon Professional Services, LLC: heavy equipment operations, geological staffing, project management, camp services and logistics.
- RECON LLC: surveying
- Ruen Drilling Inc.
- Soloy Helicopters, LLC
- DesertAir Alaska
- Ryan Air

- Andrew Airways
- Steiner Design and Construction Services, LLC: camp management, camp sanitary and waste management facilities
- ABR, Inc.: wetlands and fisheries studies
- SLR Consulting: hydrology studies

7. REFERENCES

ABR, Inc. 2021. Field Survey, Geodatabase of Wetland Mapping, and Field Plot Locations. September 2021.

ABR, Inc. 2022a. Estelle Project Fish Surveys, 2021. January 2022.

ABR, Inc. 2022b. Estelle and Emerald Project Fish Surveys, 2022. October 2022.