



**FISH HABITAT PERMIT FH25-I-0117**

**ISSUED:** October 29, 2025

**EXPIRES:** Life of Structure

Hecla Greens Creek Mining Company  
ATTN: Paula Lillesve, Environmental Manager  
P.O. Box 32199  
Juneau, AK 99803-2199

**RE:** Culvert Replacement  
Uncataloged Tributary to Fowler Creek  
Section 11, T 43 S, R 56 E, CRM (Juneau A3)  
Location: 58.1538 N, 134.7506 W

Dear Paula Lillesve:

Pursuant to the Fishway Act at AS 16.05.841, the Alaska Department of Fish and Game (ADF&G) Habitat Section reviewed your proposal to replace a culvert at MP 2.2 on the Greens Creek Mine A-Road.

**Project Description**

At least one week prior to beginning in-water work, you will notify a Habitat Section biologist to allow for fish removal and construction oversight. You are responsible for maintaining the integrity of any fish exclusion fences<sup>a</sup> to ensure fish do not enter the work area.

Preferably during low water conditions, you will replace the existing 48 inch diameter culvert with a similar 40 ft long, 48 inch diameter corrugated metal culvert according to your plans and specifications dated September 24, 2025 (enclosed). You will install the culvert to match stream gradient at the site<sup>b</sup>, excavate to embed the culvert 12 inches, and fill each end with about 1.5 yd<sup>3</sup> of 6 inch minus streambed rock graded with sufficient fine sediment to maintain surface flow. You will construct a grade control structure about 10 ft downstream of the culvert using larger rock (about 8–16 inch diameter) that spans the streambed. Once installed, you will excavate connecting channels, divert streamflow into the new culvert, remove the original culvert, restore the streambanks and remove all in-water equipment.

<sup>a</sup> Fences must be 1/8 inch mesh or smaller.

<sup>b</sup> You will conduct a survey to generate a longitudinal streambed gradient profile up and downstream of the culvert prior to installation.

**Fishway Act**

The unnamed tributary to Fowler Creek supports Dolly Varden and cutthroat trout.

In accordance with AS 16.05.841, your project is approved subject to the project description and permit terms.

You must maintain the integrity of the structure in accordance with the terms of this permit so that free fish passage is assured. You must restore any obstruction to free fish passage to the satisfaction of the Habitat Section.

**Permit Terms**

This letter constitutes a permit issued under the authority of AS 16.05.841 and must be retained on site during project activities. Please be advised that this determination applies only to Habitat Section regulated activities; other agencies also may have jurisdiction under their respective authorities. This determination does not relieve you of your responsibility to secure other state, federal, or local permits. You are still required to comply with all other applicable laws.

You are responsible for the actions of contractors, agents, or other persons who perform work to accomplish the approved project. Prior to engaging in any activity that significantly deviates from the approved plan, you shall notify the Habitat Section and obtain written approval in the form of a permit amendment. Any action that increases the project's overall scope or that negates, alters, or minimizes the intent or effectiveness of any provision contained in this permit will be deemed a significant deviation from the approved plan. The final determination as to the significance of any deviation and the need for a permit amendment is a Habitat Section responsibility. Therefore, it is recommended the Habitat Section be consulted immediately when a deviation from the approved plan is being considered.

You shall give an authorized representative of the state free and unobstructed access to the permit site, at safe and reasonable times, for the purpose of inspecting or monitoring compliance with any provision of this permit. You shall furnish whatever assistance and information the authorized representative reasonably requires for monitoring and inspection purposes.

In addition to the penalties provided by law, this permit may be terminated or revoked for failure to comply with its provisions or failure to comply with applicable statutes and regulations. You shall mitigate any adverse effect upon fish or wildlife, their habitats, or any restriction or interference with public use that the commissioner determines was a direct result of your failure to comply with this permit or any applicable law.

You shall indemnify, save harmless, and defend the department, its agents, and its employees from any and all claims, actions, or liabilities for injuries or damages sustained by any person or property arising directly or indirectly from permitted activities or your performance under this permit. However, this provision has no effect if, and only if, the sole proximate cause of the injury is the department's negligence.

Please direct questions about this permit to Habitat Biologist Greg Albrecht at (907) 465-6384 or [greg.albrecht@alaska.gov](mailto:greg.albrecht@alaska.gov).

Sincerely,  
Doug Vincent-Lang  
Commissioner

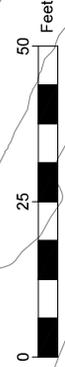
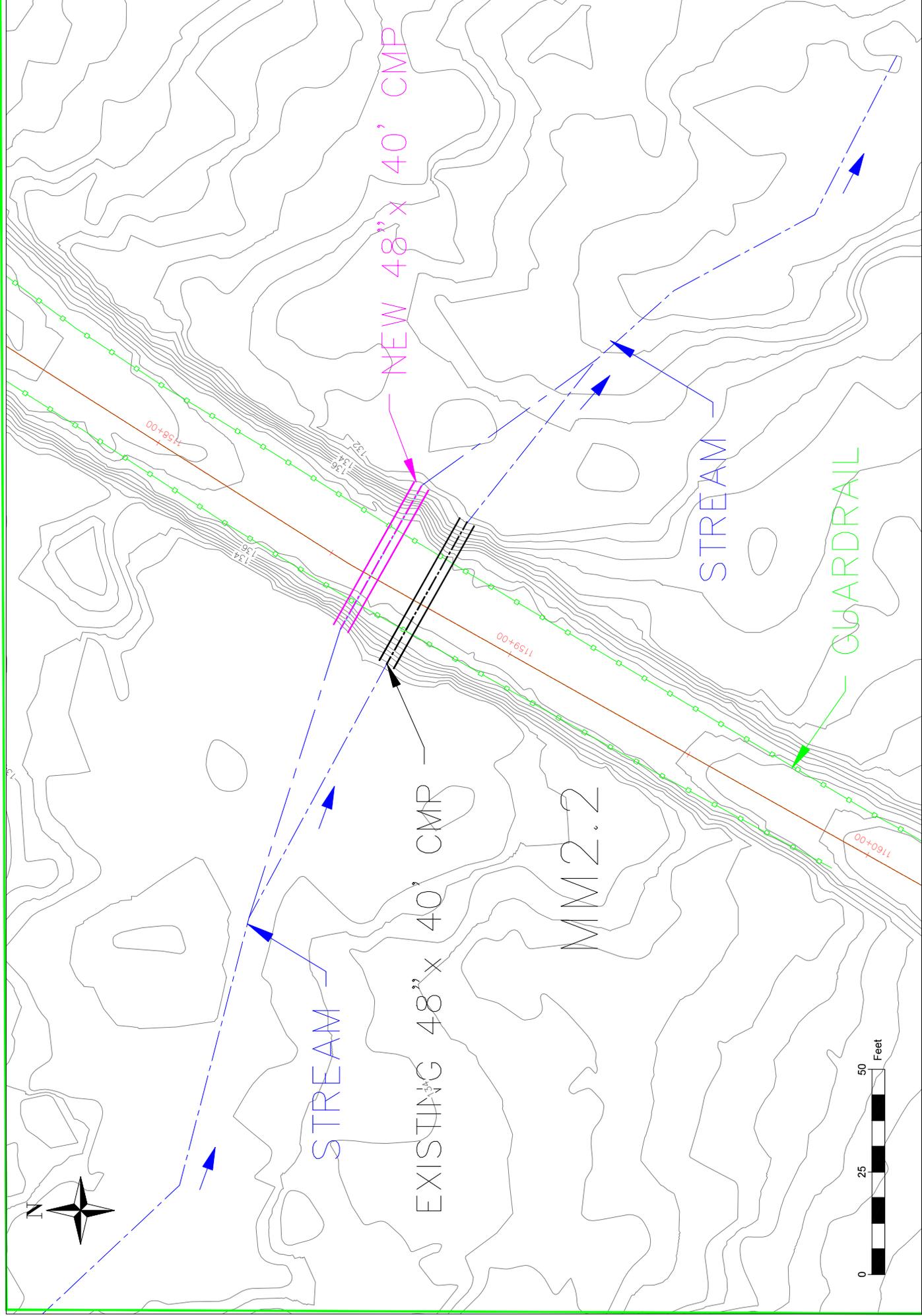


By: Kate Kanouse  
Regional Supervisor

Enclosures: 2.2 A Road Fish Culvert Replacement Plan, Pg. 1-2

Email cc:

Al Ott, ADF&G Habitat, Fairbanks  
ADF&G Habitat Staff, Douglas  
Dan Teske, ADF&G SF, Douglas  
Scott Forbes, ADF&G CF, Douglas  
Carl Koch, ADF&G WC, Douglas  
Michael Mazzacavallo, ADF&G SF, Anchorage  
Randy Vigil, USACE, Juneau  
Andy Stevens, USFWS, Anchorage  
Habitat Conservation Division, NMFS, Juneau  
Scott Leslie, USFS JRD, Juneau  
Heidi Lombard, USFS SO, Petersburg



HECLA GREENS CREEK MINING COMPANY  
 JUNEAU, ALASKA

2.2 A ROAD FISH CULVERT  
 REPLACEMENT PLAN

SCALE AS SHOWN DRAWN BY: SHELBY EDWARDS SHEET 1 of 1  
 DATE: SEPT. 24, 2025



REFERENCE SYSTEM DEFINITION - COORDINATE SYSTEM

1. SOURCE: NAD 83 UTM ZONE 18Q UTM COORDINATE SYSTEM
2. LOCAL COORDINATE SYSTEM: "2001 TUNDRA LOCAL" IS FEET FROM TIED BENCH MARKS.
3. TRANSFORMED COORDINATE SYSTEM: "2001 TUNDRA LOCAL" IS FEET FROM TIED BENCH MARKS.
4. LOCAL RESULTING COORDINATE SYSTEM: "2001 TUNDRA LOCAL" IS FEET FROM TIED BENCH MARKS.
5. SUBTRACT 1496 FEET FROM NAD 83 ELEVATIONS TO BE IN HIGH "2001 TUNDRA LOCAL" ELEVATIONS.



Remove fish from area and dewater through existing pipe

Place pump and dewater through existing pipe

STREAM

Existing 48" x 40' CMP Culvert

New 48" x 40' CMP

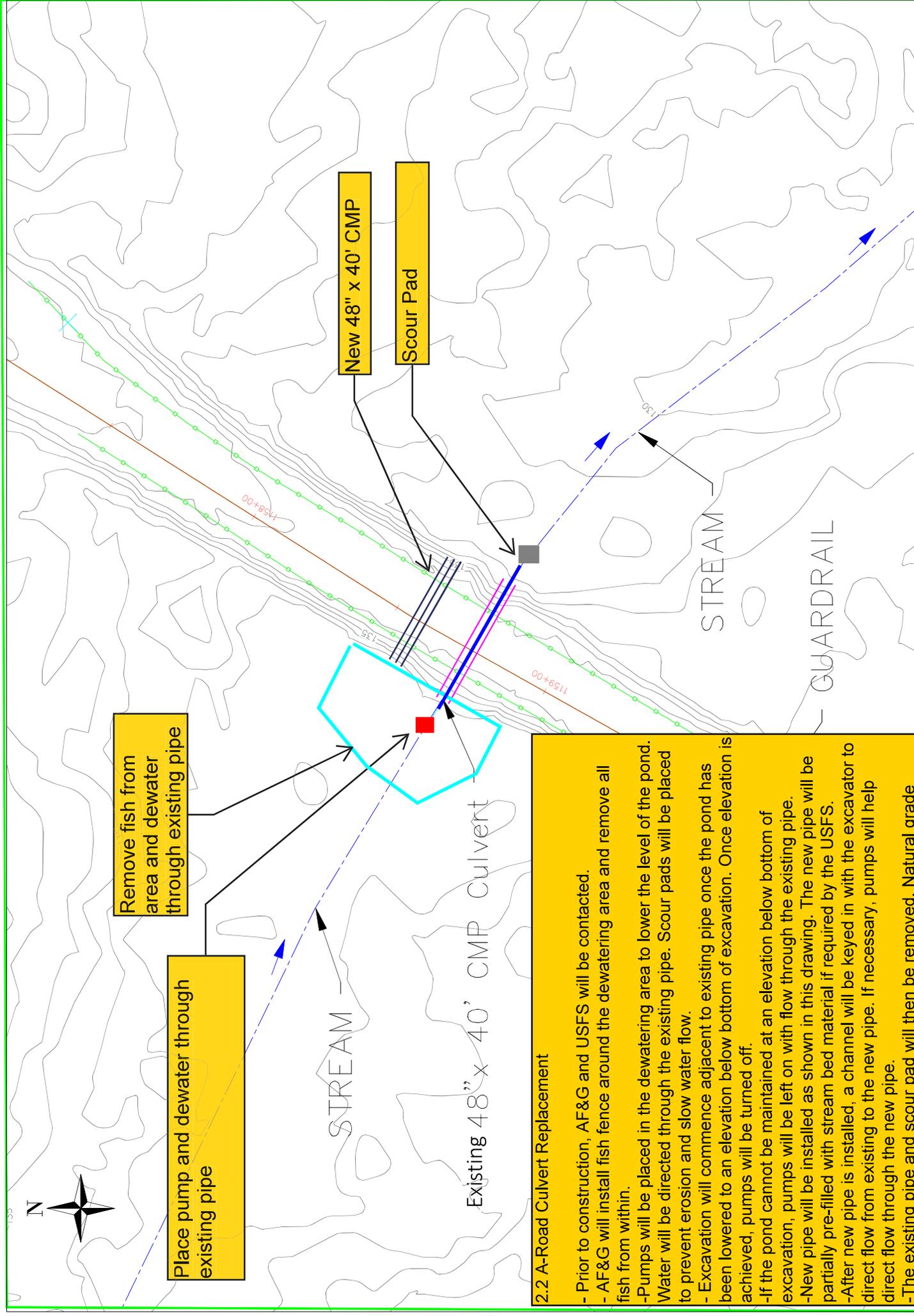
Scour Pad

STREAM

GUARDRAIL

**2.2 A-Road Culvert Replacement**

- Prior to construction, AF&G and USFS will be contacted.
- AF&G will install fish fence around the dewatering area and remove all fish from within.
- Pumps will be placed in the dewatering area to lower the level of the pond. Water will be directed through the existing pipe. Scour pads will be placed to prevent erosion and slow water flow.
- Excavation will commence adjacent to existing pipe once the pond has been lowered to an elevation below bottom of excavation. Once elevation is achieved, pumps will be turned off.
- If the pond cannot be maintained at an elevation below bottom of excavation, pumps will be left on with flow through the existing pipe.
- New pipe will be installed as shown in this drawing. The new pipe will be partially pre-filled with stream bed material if required by the USFS.
- After new pipe is installed, a channel will be keyed in with the excavator to direct flow from existing to the new pipe. If necessary, pumps will help direct flow through the new pipe.
- The existing pipe and scour pad will then be removed. Natural grade stabilization riprap and backfill material will be placed and compacted.
- AF&G will then removed all fish fence.



LOCAL AND GRID COORDINATES BASED OFF ALASKA STATE PLANE COORDINATE ZONE 5, NAD83, UTM  
 CONVERSION FROM LOCAL COORDINATE SYSTEM MUST BE MADE TO MATCH THE GRID AND UTM  
 2. SCALE STATE PLANE LOCAL COORDINATES USING LOCAL GRID AT ALASKA STATE SCALE STATE PLANE  
 COORDINATE PROJECTIONS TO LOCAL COORDINATE SYSTEM (LCS) WITH THE FOLLOWING PROJECTIONS:  
 3. TRANSFORM LOCAL COORDINATES USING N=24, UTM ZONE 18, E=4,400,000.00  
 4. LOCAL COORDINATE SYSTEM (LCS) COORDINATES TO BE USED FOR ALL CONSTRUCTION AND SURVEY  
 ELEVATION POINT #1, #2, #3, #4, #5, #6, #7, #8, #9, #10, #11, #12, #13, #14, #15, #16, #17, #18, #19, #20  
 5. SURVEY POINT ELEVATIONS TO BE IN FEET 2022, UNLESS OTHERWISE SPECIFIED

