DEPARTMENT OF THE ARMY
ALASKA DISTRICT, U.S. ARMY CORPS OF ENGINEERS
REGULATORY DIVISION
P.O. BOX 6898
JBER, AK 99506-0898
June 21, 2017

Regulatory Division
POA-2016-248

Eklutna, Inc.
Attention: Mr. Steve Connelly
16515 Centerfield Drive, Suite 201
Eagle River, Alaska 99577

Dear Mr. Connelly:

Enclosed is the signed Department of the Army permit, file number POA-2016-248, Eklutna River, which authorizes the discharge of 2,400 cubic yards (CY) of temporary fill and existing sediment into 0.92-acre of waters of the U.S. (WOUS) for various work areas, 186.1 CY of temporary diversion structures, and 21,000 CY of relocated sediment downstream of the dam. The project site is located within Sections 29 and 30, T. 16 N., R. 1 E., Seward Meridian; USGS Quad Map Anchorage B-7; Latitude 61.44954° N., Longitude 149.32979° W.; Municipality of Anchorage; near Eagle River, Alaska. Also enclosed is a Notice of Authorization which should be posted in a prominent location near the authorized work.

If changes to the plans or location of the work are necessary for any reason, plans must be submitted to us immediately. Federal law requires approval of any changes before construction begins. Nothing in this letter excuses you from compliance with other Federal, State, or local statutes, ordinances, or regulations.

Please contact me via email at Amanda.L.Heath@usace.army.mil, by mail at the address above, by phone at (907) 753-5582, or toll free from within Alaska at (800) 478-2712, if you have questions. For more information about the Regulatory Program, please visit our website at http://www.poa.usace.army.mil/Missions/Regulatory.aspx.

Sincerely,

Amanda L. Heath
Project Manager

Enclosures

This notice of authorization must be conspicuously displayed at the site of work.

United States Army Corps of Engineers
Eklutna River

A permit to: Discharge of 2,400 cubic yards (CY) of temporary fill and existing sediment into 0.92-acre of waters of the U.S. (WOUS) for various work areas, 186.1 CY of temporary diversion structures, and 21,000 CY of relocated sediment downstream of the dam.

at: Sections 29 and 30, T. 16 N., R. 1 E., Seward Meridian; USGS Quad Map Anchorage B-7; Latitude 61.44954° N., Longitude 149.32979° W.; Municipality of Anchorage; near Eagle River, Alaska.

has been issued to: Eklutna, Inc.

on: 21 June 2017 **and expires on:** 30 June 2022

Address of Permittee: 16515 Centerfield Drive, Suite 201, Eagle River, Alaska 99577.

Permit Number:

POA-2016-248

Amanda L Heath

FOR: Colonel Michael S. Brooks
District Commander
Amanda L. Heath
Project Manager
REGULATORY DIVISION

ENG FORM 4336, Jul 81 (33 CFR 320-330) EDITION OF JUL 70 MAY BE USED (Proponent: CECW-O)

DEPARTMENT OF THE ARMY PERMIT

Permittee: Eklutna, Inc.

Permit No.: POA-2016-248; Eklutna River

Issuing Office: U.S. Army Engineer District, Alaska

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: To discharge 2,400 cubic yards (CY) of temporary fill and existing sediment into 0.92-acre of waters of the U.S. (WOUS) for various work areas, 186.1 CY of temporary diversion structures, and 21,000 CY of relocated sediment downstream of the dam.

All work will be performed in accordance with the attached plan, Sheets 1-8, dated November 3, 2016.

Project Location: Sections 29 and 30, T. 16 N., R. 1 E., Seward Meridian; USGS Quad Map Anchorage B-7; Latitude 61.44954° N., Longitude 149.32979° W.; Municipality of Anchorage; near Eagle River, Alaska.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on **June 30, 2022**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

1. Following completion of construction activities, the 1.36 acres of temporary fill (as detailed on Sheets 2 through 5, November 2, 2016) must be entirely removed to an area that has no waters of the United States and the affected areas must be restored to pre-construction elevations.

2. The Permittee shall implement the attached Eklutna River Aquatic Habitat Monitoring Plan, April 3 2017, in its entirety. Failure in complying with the implementation and associated issuance of annual reports starting the end of the calendar of 2017, the Corps may determine the permittee is out of compliance with the conditions of the Department of the Army permit and suspend the permit. Suspension may result in modification or revocation of the authorized work.

3. The Permittee shall implement the attached Infrastructure Sediment Monitoring Plan, June 6, 2017, in its entirety. Failure in complying with the implementation and associated issuance of annual reports starting November 15, 2017, the Corps may determine the permittee is out of compliance with the conditions of the Department of the Army permit and suspend the permit. Suspension may result in modification or revocation of the authorized work.

4. The Permittee shall implement the attached Memorandum of Agreement (MOA), entitled The Demolition of the Eklutna Diversion Dam (ANC-1973) Near Eklutna, Alaska, May 3 2017, in its entirety. The Corps has been designated the lead federal agency responsible for implementing and enforcing the Memorandum of Agreement as signed. If the permittee fails to comply with the implementation and associated enforcement of the MOA by December 31, 2017 the Corps may determine the permittee is out of compliance with the conditions of the Department of the Army permit and suspend the permit. Suspension may result in modification or revocation of the authorized work.

5. The Permittee shall submit all reports, notifications, documentation and correspondence required by the general and special conditions of this permit to the following address:

a. For standard mail: U.S. Army Corps of Engineers, Regulatory Division, P.O Box 6898 JBER, Alaska 99506-0898.

b. For electronic mail regpagemaster@usace.army.mil (not to exceed 10 MB).

c. The Permittee shall reference this permit number, POA-2016-248, Eklutna River, on all submittals.

6. Within 10 days from the date of initiating the work authorized by this permit, the Permittee shall provide a written notification of the date of commencement of authorized work to the Corps.

7. Within 60 days of completion of the work authorized by this permit, the Permittee shall complete the attached "Self-Certification Statement of Compliance" form and submit it to the Corps. In the event that the completed work deviates in any manner from the authorized work, the Permittee shall describe the deviations between the work authorized by this permit and the work as constructed on the "Self-Certification Statement of Compliance" form. The description of any deviations on the "Self-Certification Statement of Compliance" form does not constitute approval of any deviations by the Corps.

8. All contractors involved in this permitted activity shall be provided copies of this permit in its entirety. A copy shall remain on site at all times during construction.

9. Should any other agency require and/or approve changes to the work authorized or obligated by this permit, the Permittee is advised a modification to this permit may be required prior to initiation of those changes. It is the Permittee's responsibility to request a modification of this permit. The Corps reserves the right to fully evaluate, amend, and approve or deny the request for modification of this permit.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, State, or local authorization required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a revaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

Steve Connelly
Eklutna, Inc.

6-21-17
(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

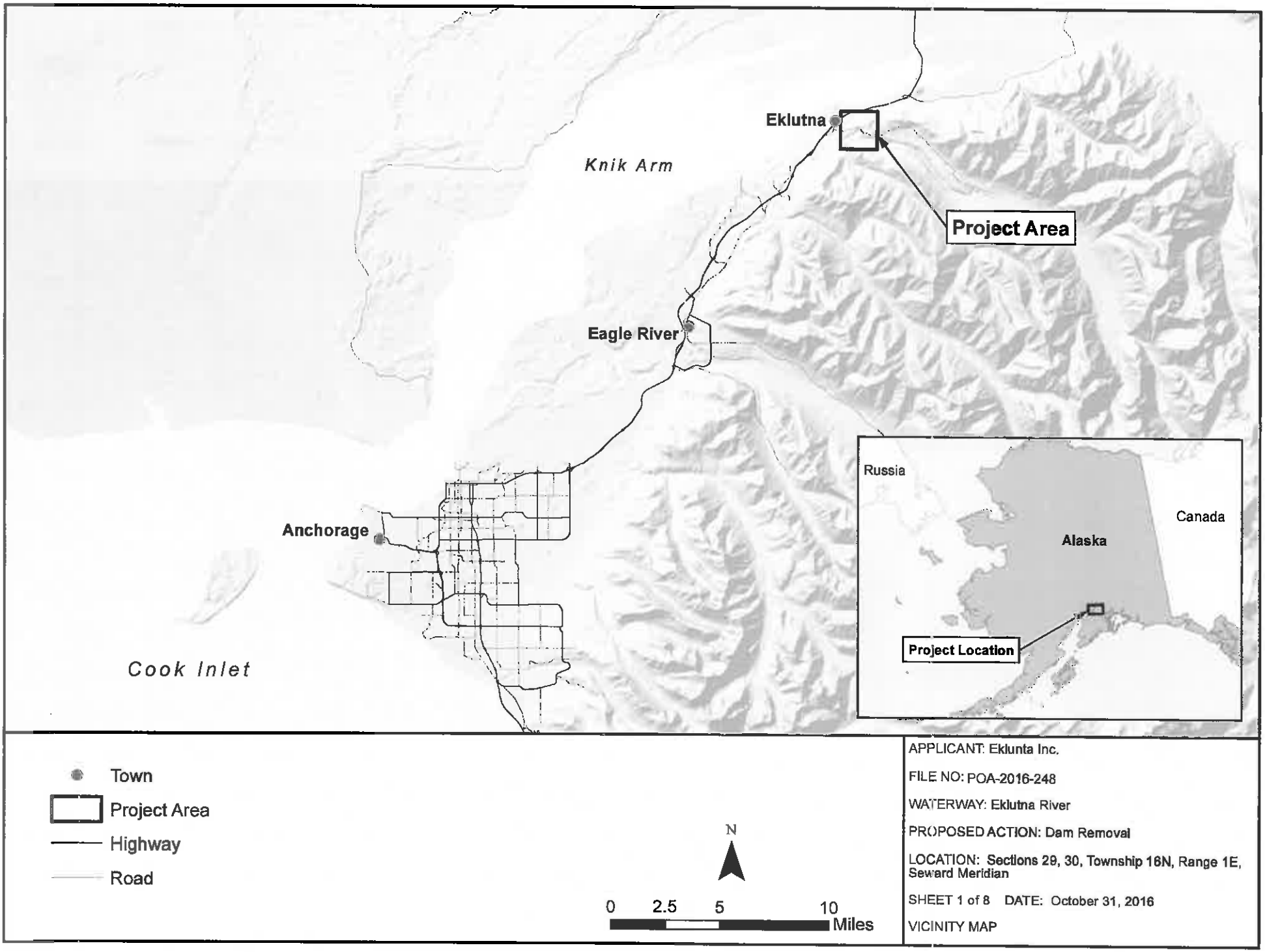
FOR Colonel Michael S. Brooks
Amanda L. Heath
Project Manager
South Branch, Regulatory Division

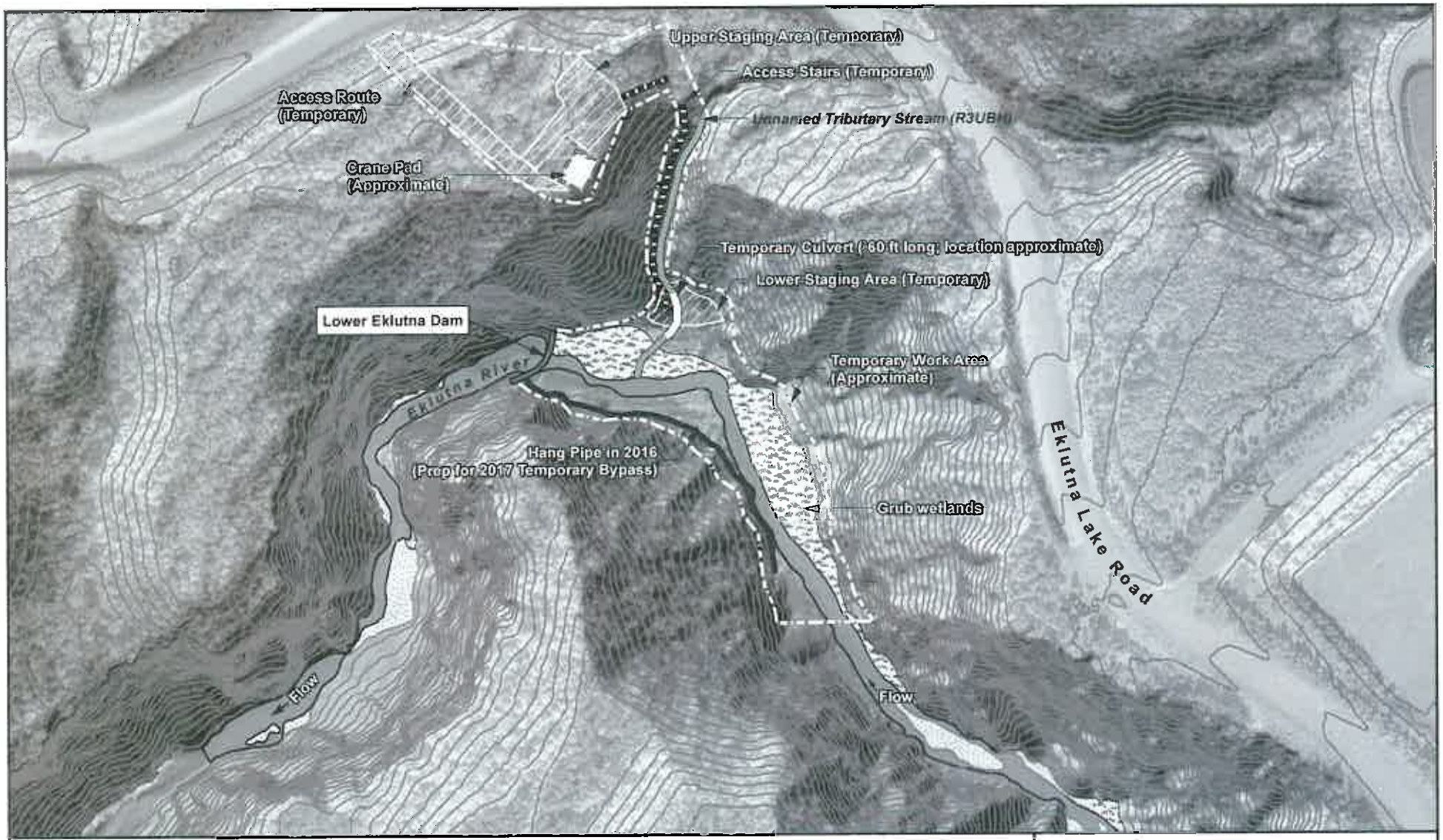
21 June 2017
(DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions have the transferee sign and date below.

(TRANSFEREE)

(DATE)


Eklutna
Knik Arm
Project Area
Eagle River
Anchorage
Cook Inlet
Russia
Canada
Alaska
Project Location
Town
Project Area
Highway
Road
N
0 2.5 5 10
Miles
APPLICANT: Eklunta Inc.
FILE NO: POA-2016-248
WATERWAY: Eklutna River
PROPOSED ACTION: Dam Removal
LOCATION: Sections 29, 30, Township 16N, Range 1E, Seward Meridian
SHEET 1 of 8 DATE: October 31, 2016
VICINITY MAP



Wetlands

NWI Code

- PSS1C
- R3UBH
- R3USC

- Lower Eklutna Dam
- River Flow Direction
- Contour (10ft)
- Crane Pad
- Temporary Stairs

N

0 125 250 375 500 Feet

APPLICANT: Eklutna Inc.

FILE NO: POA-2016-248

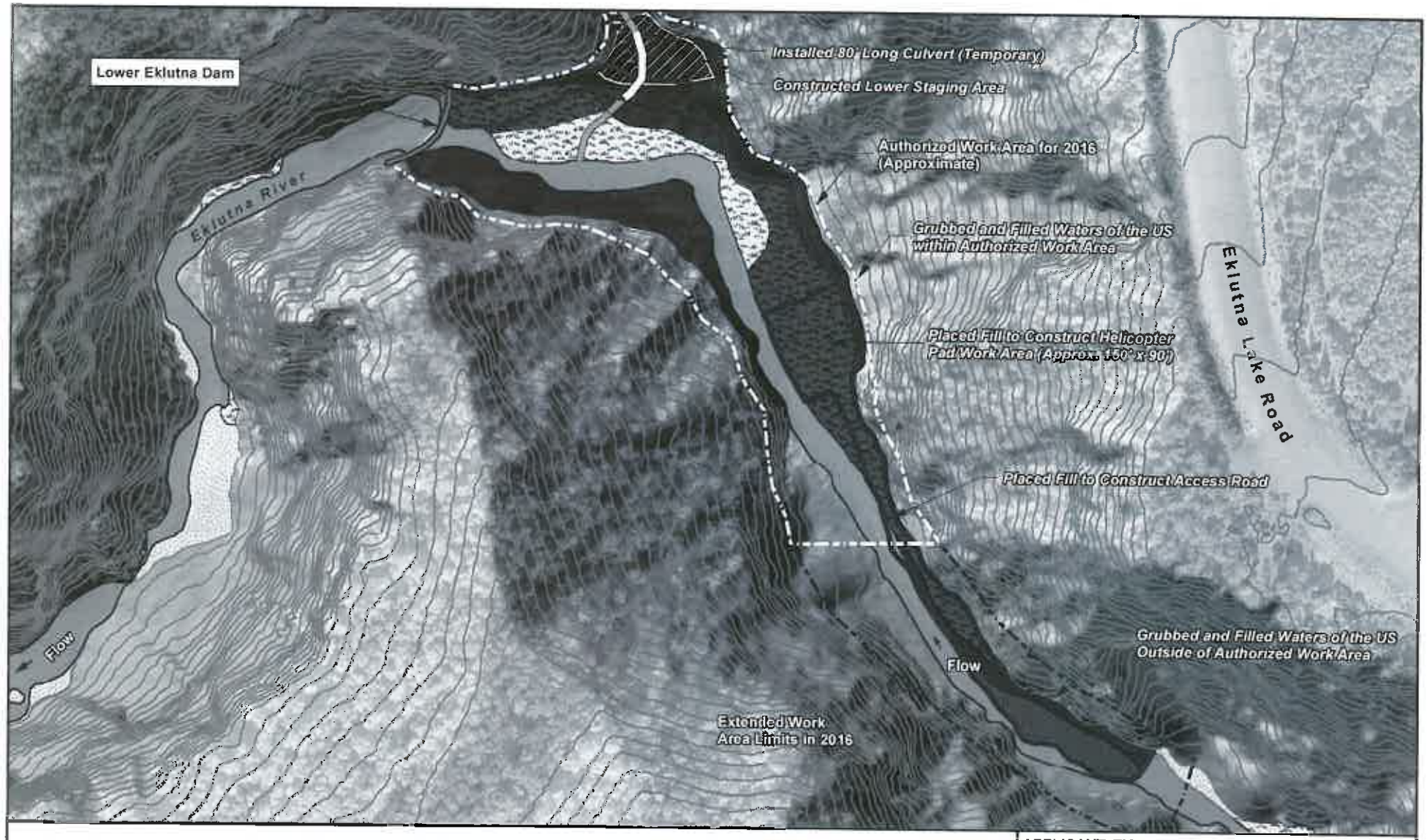
WATERWAY: Eklutna River

PROPOSED ACTION: 2016 Site Preparation for 2017 Dam Removal

LOCATION: Sections 29, 30, Township 16N, Range 1E, Seward Meridian

SHEET 2 of 8 DATE: November 02, 2016

Activities Authorized by POA-2016-248



Wetlands

NWI Code

- PSS1C
- R3UBH
- R3USC

- Lower Eklutna Dam
- River Flow Direction
- Contour (10ft)
- Temporary Stairs
- Fill Placed in 2016
- Constructed Access in 2016

N

0 75 150 225 300 Feet

APPLICANT: Eklutna Inc.

FILE NO: POA-2016-248

WATERWAY: Eklutna River

PROPOSED ACTION: 2016 Site Preparation for 2017 Dam Removal

LOCATION: S29, 30, T16N, R1E, Seward Meridian

SHEET 3 of 8 DATE: November 02, 2016

ACTIVITIES CONDUCTED IN THE CANYON IN 2016

Wetlands

NWI Code

- PSS1C
- R3UBH
- R3USC
- Unnamed Tributary

- Lower Eklutna Dam
- Temporary Diversion Dam
- Temporary Diversion Pipe
- Temporary Work Area
- Contour (10ft)
- Approximate Bulldozer Route

N

0 100 200 300 400 Feet

APPLICANT: Eklutna Inc.

FILE NO: POA-2016-248

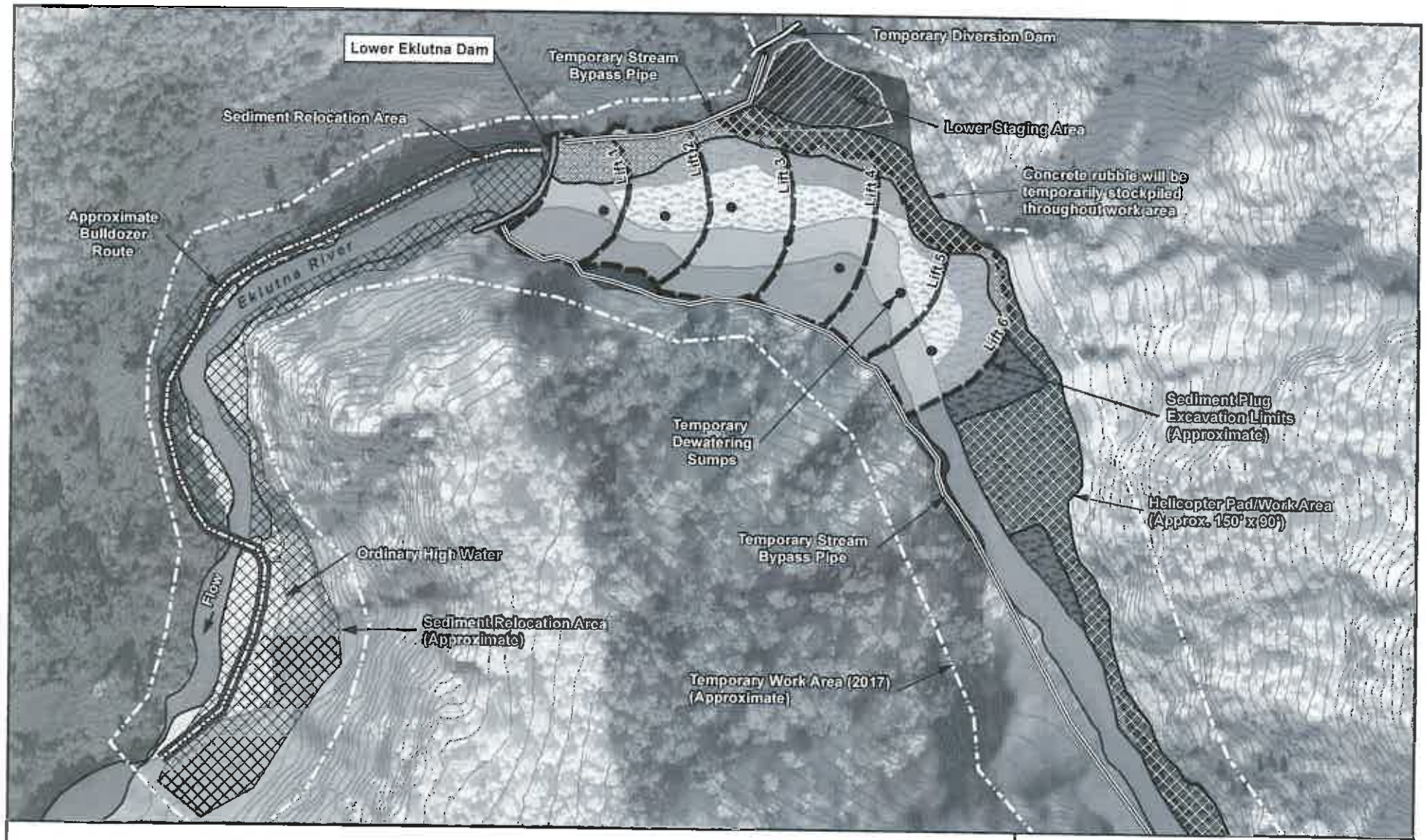
WATERWAY: Eklutna River

PROPOSED ACTION: Dam Removal

LOCATION: Sections 29, 30, Township 16N, Range 1E, Seward Meridian

SHEET 4 of 8 DATE: November 02, 2016

2017 SITE LAYOUT AND ACCESS IN CANYON



Wetlands

NWI Code

- PSS1C
- R3UBH
- R3USC

- Temporary Diversion Dam
- Lower Eklutna Dam
- Temporary Water Bypass Pipe
- Unnamed Tributary
- Temporary Dewatering Sumps
- Sediment Relocation Areas (Approximate)
- Sediment Plug Excavation & Lift Sequence
- 10 foot Contour

N

0 100 200 Feet

APPLICANT: Eklutna Inc.

FILE NO: POA-2016-248

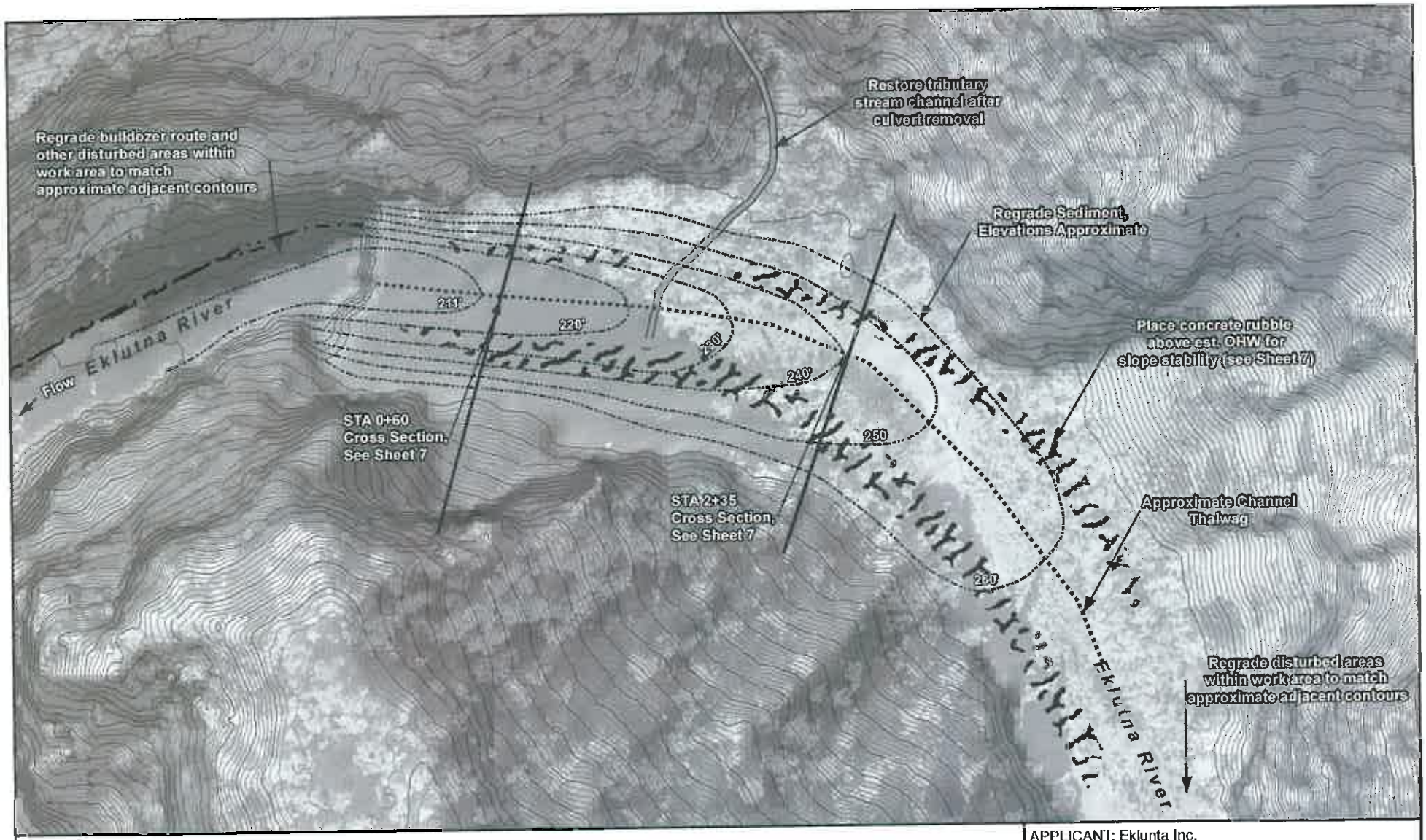
WATERWAY: Eklutna River

PROPOSED ACTION: Dam Removal

LOCATION: Sections 29, 30, Township 16N, Range 1E, Seward Meridian

SHEET 5 of 8 DATE: November 02, 2016

SEDIMENT RELOCATION AND DAM REMOVAL - PLAN



APPLICANT: Eklutna Inc.

FILE NO: POA-2016-248

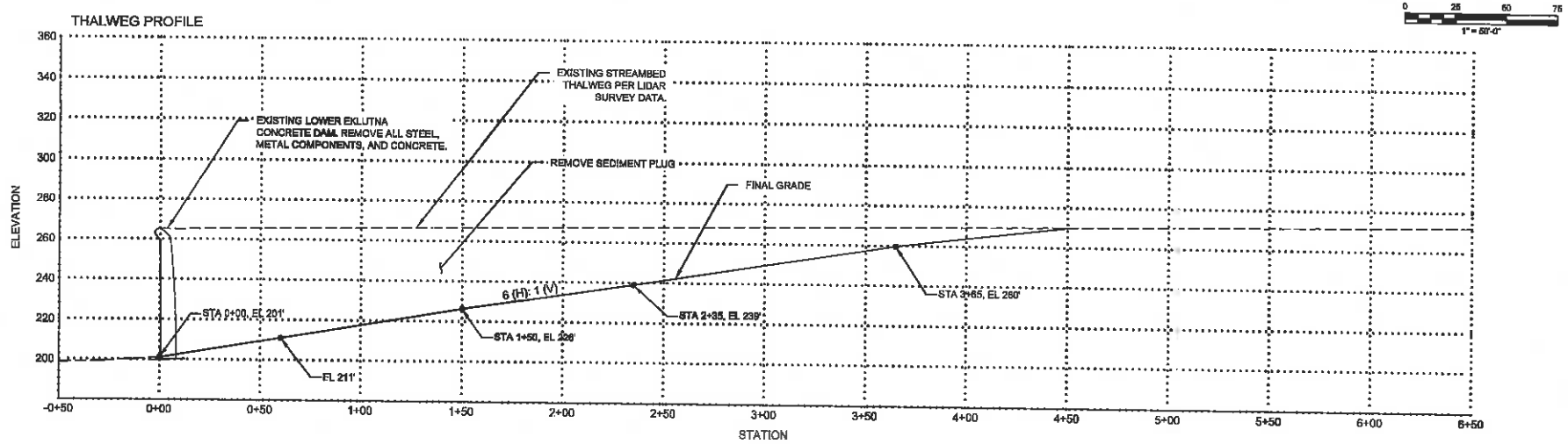
WATERWAY: Eklutna River

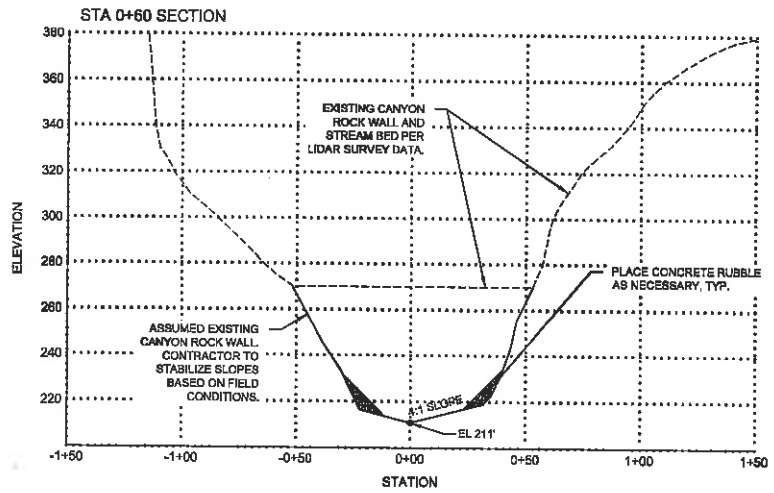
PROPOSED ACTION: Dam Removal

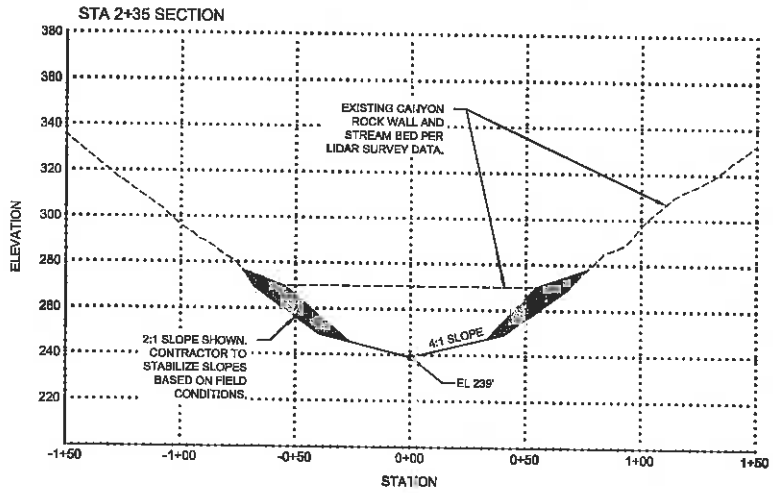
LOCATION: Sections 29, 30, Township 16N, Range 1E, Seward Meridian

SHEET 6 of 8 DATE: November 03, 2016

FINAL GRADING - PLAN VIEW







APPLICANT: Eklunta Inc.

FILE NO: POA-2016-248

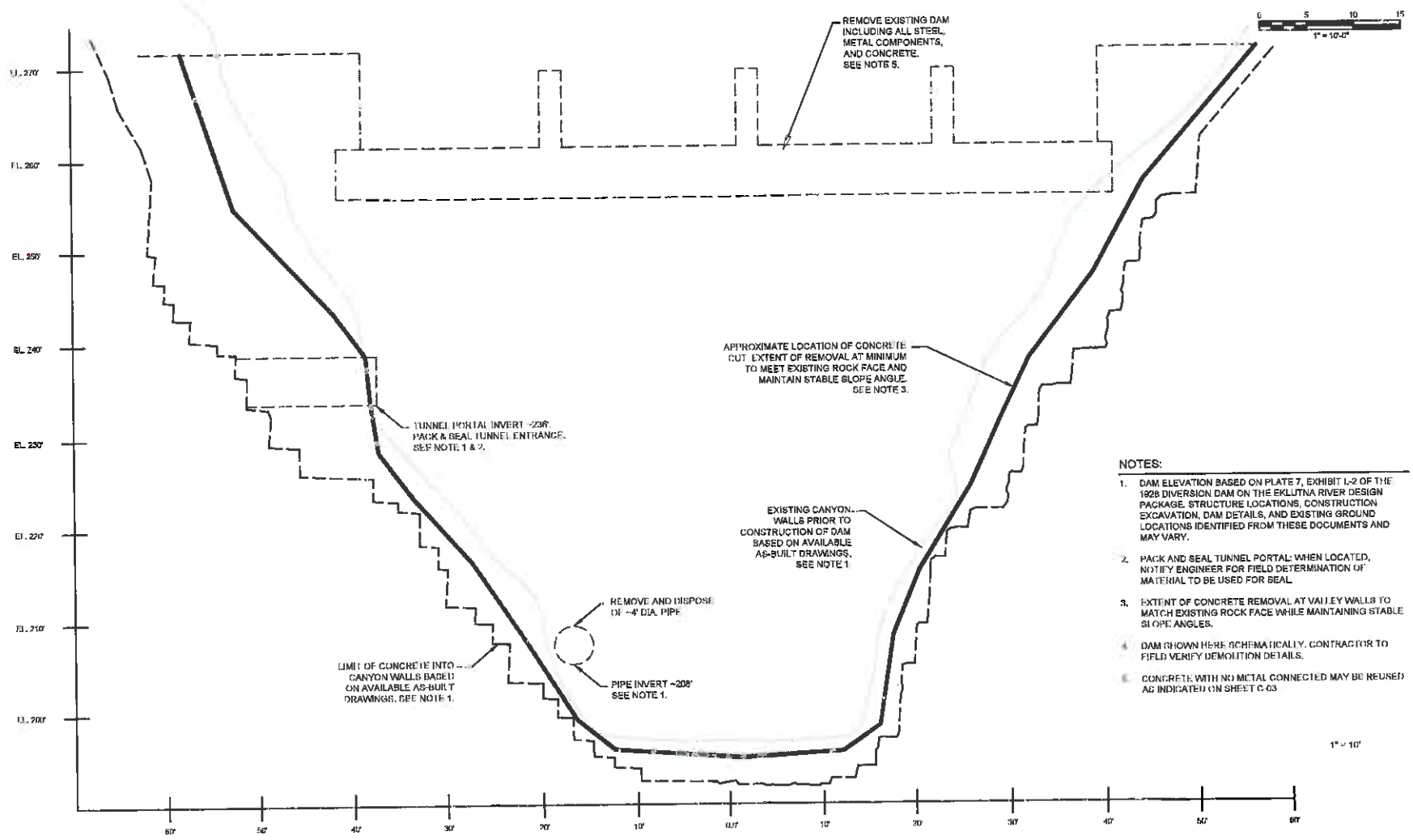
WATERWAY: Eklutna River

PROPOSED ACTION: Dam Removal

LOCATION: Sections 29, 30, Township 16N, Range 1E, Seward Meridian

SHEET 7 of 8 DATE: November 1, 2016

EKLUTNA DAM CROSS SECTIONS



APPLICANT: Eklunta Inc.

FILE NO: POA-2016-248

WATERWAY: Eklutna River

PROPOSED ACTION: Dam Removal

LOCATION: Sections 29, 30, Township 16N, Range 1E, Seward Meridian

SHEET 8 of 8 DATE: October 31, 2016

EKLUTNA DAM ELEVATION

Eklutna River Aquatic Habitat Monitoring Plan

Introduction

Eklutna Inc., in partnership with The Conservation Fund, is proposing to deconstruct the lower Eklutna River dam, near the Native Village of Eklutna, Alaska. The Eklutna River flows from the Eklutna Glacier in the Chugach Mountains into Cook Inlet's Knik Arm. The Eklutna River is approximately 25 miles northeast of Anchorage. The lower Eklutna River dam, 70-feet (ft) high and 100-ft wide, is located in a steep-walled canyon approximately 7 miles downstream of Eklutna Lake (See Exhibit 1 in Supplemental Materials). The concrete dam, initially constructed in 1929, was abandoned in the 1950s and has been functionally obsolete since. The upper Eklutna Dam, built in the 1960s, currently diverts all waters out of Eklutna River except for accretion flows and rare overflow events.

Purpose for Monitoring Plan

The purpose of this plan is to monitor potential secondary effects to the Eklutna River by characterizing abiotic and biotic changes that may occur as a result removing the dam. Field data collection methods and subsequent data analyses will focus on examining physical changes to channel geometry, substrate composition, water temperature and turbidity. The final monitoring plan methods and locations will be determined in coordination with the National Marine Fisheries Service and the Alaska Department of Fish and Game.

Methods

Monitoring Sites

Three monitoring sites will be placed in the general locations shown in Figure 1. Specific locations will be identified in the field in consultation with participating resource agencies, but in general two cross sections will be located in the canyon above the Eklutna River confluence with Thunderbird creek, and one downstream of the confluence. . A cross-section will be developed at the center of each monitoring site where a standard suite of data will be collected. Measurements will include channel geometry, water depth, velocity, and substrate. Instantaneous turbidity and water temperature information will be collected at cross section locations; if possible, continuous turbidity and temperature measurements will be collected upstream and downstream of the sediment plug. The following sections provide additional information on field methods and data to be collected.

Channel Geometry

Physical changes to channel geometry will be assessed by placing a cross section at each study site. Study sites will be defined by locatable metal pins placed on both banks of the slough along with a temporary bench mark (TBM). If funding allows, a permanent monument will be established on the canyon wall which can be used to tie all three cross section locations together which can be used to determine shifts in the entire stream bed. At each study site a cross-section will be established perpendicular to flow using a surveyor's auto level, stadia rod, and fiberglass field tape. The following measurements will be recorded:

- Channel geometry at 12 inch (0.3 meter) increments
- Left and right top of bank

- Left and right bottom of bank
- Ordinary high water (OHW)
- Thalweg
- Relative water surface elevation
- Left and right edges of water
- Bank full width
- Stream gradient (between study sites assuming a permanent monument is established)
- Channel irregularities or unique channel features

Substrate

Substrate will be characterized at each cross section using a Wolman pebble count (Wolman 1954, cited in USFS 2001). Selection bias for substrate measurements will be minimized as much as possible by conducting a "boot tip" survey, in which the observer selects the first particle encountered at the tip of his/her boot. The pebble counts will consist of five transects, spaced at increments of 5 meters, with 20 samples selected and measured per transect, for 100 total samples for each site. One transect will be located at the cross section and two transects will be located upstream and two downstream, respectively. Substrate will be measured and categorized according to USFS methods (USFS 2001).

Turbidity and Water Temperature

Continuous turbidity measurements will be taken both upstream and downstream of the sediment plug. A YSI 6920 V2-2 meter or similar will be deployed in both locations (to be determined), and data collected at a 15-minute intervals. The instrument will be deployed after spring breakup and winter freeze up. Instantaneous data collection will be collected during the winter months when scientists are in the field.

Parameters collected include:

- Turbidity
- DO
- Conductivity
- Temperature
- pH

If continuous turbidity and temperature measurements cannot be collect due to instrument cost or failure, instantaneous measurements will be collected weekly for the first year between May 2017 and October 2017. After this time period instantaneous measurements of these parameters will be collected during the normally scheduled sampling events.

Monitoring Schedule

The initial reconnaissance and baseline characterization of study sites will occur in May 2017, before the dam demolition begins. Subsequent monitoring events will occur in the fall, and this schedule repeated for 3 years, in which the last sampling event will occur in September 2020, as shown in Table 1.

Table 1. Monitoring Schedule (May 2017 – October 2020						
	May	June	July	August	September	October
Channel Geometry	X				X	
Substrate	X				X	
Temperature/Turbidity	X	X	X	X	X	X

Quality Assurance Plan

Members of the sampling team including senior personnel and field technicians will meet to review the objectives of the sampling plan, corresponding data collection sheets and establish necessary metadata standards. A naming convention for all sample sites will be established and any necessary training will occur. These data will be maintained by the collecting organization and provided in annual reports, described below.

Field Data will be recorded on datasheets that will be checked for accuracy and completeness by someone other than the recorder. Data entry and management will use a Microsoft Access Database, or Excel. Three levels of quality assurance and control (QA/QC) which are described below will be completed for field data.

QC Level 1 Field QC. At the end of each field day before leaving the site, the task manager will review the data collected that day and make any needed comments or note any deficiencies that need to be addressed. This review will be noted on each datasheet.

QC Level 2 Line by Line Review. After data have been entered into a database and prior to analysis, all data will be checked for data entry errors and completeness. Any changes to the data base relative to data sheets will be documented as will completion of QC Level 2.

QC Level 3 Data Anomalies. Data outliers or inconsistencies identified, typically during analysis, will be evaluated to determine if they are erroneous, the result of sample bias, or caused by natural variability. All data anomalies will be addressed on a case-by-case basis for inclusion in subsequent analyses.

Data Analysis

Data analysis will focus on secondary impacts that may occur within a 3 - year duration as a result of removing the lower dam (additional data collection after year 3 to be decided depending on funding sources). Analyses will center on comparing results from previous sample year(s), as well as assumptions used for the sediment transport analysis which at a minim will include comparisons of:

- Surface water stage
- Water Turbidity and Temperature
- Channel geometry
- Substrate composition

Reporting Schedule

Monitoring reports will be provided to the National Marine Fisheries Service, U.S. Army Corps of Engineers and Alaska Department of Fish and Game at the end of each calendar year during which monitoring takes place, beginning in 2017. Final data will be provided in digital format upon.

References

USFS (USDA Forest Service). 2001. FSH 2090-Aquatic Habitat Management Handbook (R-10 Amendment 2090.21-2001-1. Chapter 20 – Fish and Aquatic Stream Habitat Survey.

Wolman. 1954. USDA Forest Service 2001. FSH 2090-Aquatic Habitat Management Handbook (R-10 Amendment 2090.21-2001-1. Chapter 20 – Fish and Aquatic Stream Habitat Survey.

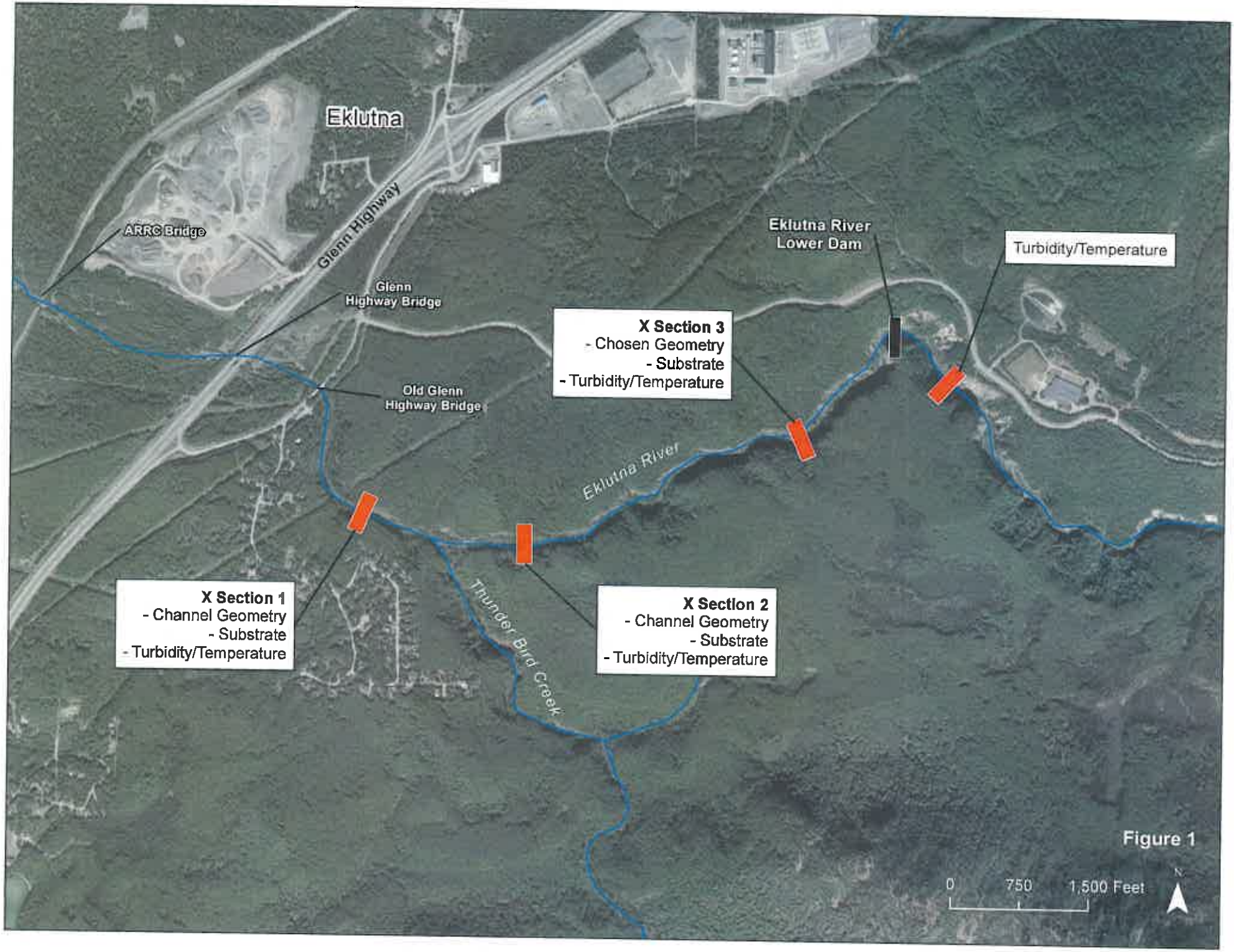

Eklutna
ARRC Bridge
Glenn Highway
Glenn Highway Bridge
Old Glenn Highway Bridge
Eklutna River Lower Dam
Turbidity/Temperature
X Section 3
- Chosen Geometry
- Substrate
- Turbidity/Temperature
Eklutna River
Thunder Bird Creek
X Section 1
- Channel Geometry
- Substrate
- Turbidity/Temperature
X Section 2
- Channel Geometry
- Substrate
- Turbidity/Temperature
0
750
1,500 Feet
N

Figure 1

Memo

Date: Tuesday, June 06, 2017

Project: Eklutna River Lower Dam Removal (Public Notice for Application of Permit POA-2016-248)

To: Amanda Heath, Project Manager (CEPOA-RD-SS) U.S. Army Corps of Engineers

From: Joe Miller, HDR; Nick Francis, Eklutna, Inc.

Subject: Infrastructure Sediment Monitoring Plan

Eklunta, Inc. proposes to monitor the Eklutna River channel alignment and geometry for sediment deposition through photodocumentation and survey cross section of the channel upstream and downstream of Alaska Department of Transportation and Public Facilities (DOT&PF) Glen Highway Bridge, the newly constructed Eklutna Lake Road Bridge and Alaska Railroad Bridge twice per year, once after spring breakup and once before fall freeze-up. In addition, Eklutna, Inc. will replicate the survey and photodocumentation after an overtopping event at the Eklutna Lake Dam. Observations of erosion at the upstream or downstream "corners" of the bridges will be reported immediately to the DOT&PF Bridge Section and Central Region M&O Office. This monitoring will occur for five years beginning in September, 2017 and concluding in September, 2022

Eklutna Lake Dam Overtopping Events

Eklutna, Inc. will coordinate with the Chugach Electric Authority (CEA), Municipal Light and Power (ML&P), the Matanuska Electric Authority (MEA) and the Anchorage Water and Wastewater Utility (AWWU) that operates the Eklutna Hydroelectric project to identify and provide advanced notification of overtopping events at the Eklutna Lake dam.

Maintenance Access & Support

Eklunta, Inc., will provide access onto and across Corporation property to address maintenance needs at the bridges. To the extent practicable, Eklutna, Inc. will assist ADOT&PF with materials support and provide armor stone, sand, gravel and other materials for emergency repairs. DOT&PF will notify Eklutna, Inc. prior to any activity occurs on private property.

Channel Cross Section Survey

Eklutna, Inc. will survey the cross section of the Eklutna River channel upstream and downstream of the Glen Highway and ARRC bridges (subject to right-of-way permits). Each bridge will be surveyed independently each using a distinct survey monument at the bridge abutments. At the Eklutna Lake Road Bridge (old Glen Highway Bridge), the bridge abutments are well outside of the river channel; a single pier supports the bridge mid channel. For this pier, a plumb bob will be used to measure the depth of the channel on the downstream side of the bridge pier. A survey monument will be established on the pier so that depth measurements are consistent over time.

Table 1 includes warning and action limits. These limits are outside of the expected deposition/erosion changes which would occur under the no action alternative. Scour action limits are defined as change in the single lowest point of the cross section (thalweg), while deposition action limits are defined as change in the overall average cross section elevation. If the survey indicates changes exceeding the warning limits, the bridge owner will be contacted. If action limits are exceeded, the bridge owner will be contacted and appropriate corrective action discussed.

Table 1: Warning and Action Limits

	Eklutna Lake Rd.		Glen Highway		ARRC Bridge	
	Thalweg Scour Elevation Change (ft)	Average Deposition Elevation Change (ft)	Thalweg Scour Elevation Change (ft)	Average Deposition Elevation Change (ft)	Thalweg Scour Elevation Change (ft)	Average Deposition Elevation Change (ft)
Warning Limit	1.5	2.0	1.5	2.0	1.5	2.0
Action Limit	3.0	4.0	3.0	4.0	3.0	4.0

It is assumed that Eklutna, Inc. staff will not work from the road surface on the Glen Highway bridge, however if this is required staff will adhere to traffic safety procedures and guidance from DOT&PF's Regional Traffic Safety staff.

Photodocumentation

Photos of the bridge abutments will be collected during the survey activities for each of the bridges. After overtopping events at Eklutna Lake, Eklutna, Inc. staff will walk the river channel from the dam site down to the Glen Highway Bridge and photodocument the river, banks and note signs of geomorphic changes including bank erosion, depositional features, undermined trees, bank sloughing, etc. To the extent practicable, the photodocumentation will occur at common locations to facilitate tracking of observable changes over time. As part of the Aquatic Habitat Monitoring Plan, survey monuments have been established in the canyon and photo locations will be referenced to these survey monuments.

Reporting

This monitoring will be conducted for 5 years and an annual report documenting the site visits, survey results and photodocumentation will be submitted to the Alaska Department of Transportation and Public Facilities, the Alaska Railroad Corporation, and U.S. Army Corps of Engineers no later than November 15 of each year. The report will use the DOT&PF Bridge Section forms; the report and photos will be provided to the DOT&PF's Bridge Section and Central Region M&O Offices as well as the Alaska Railroad Corporation Engineering office.

MEMORANDUM OF AGREEMENT AMONG THE US ARMY CORPS OF ENGINEERS, THE ALASKA HISTORIC PRESERVATION OFFICER, AND EKLUTNA, INC., REGARDING THE DEMOLITION OF THE EKLUTNA DIVERSION DAM (ANC-1973) NEAR EKLUTNA, ALASKA

WHEREAS, the U.S. Army Corps of Engineers (Corps) proposes to issue a Section 404 permit to Eklutna, Inc. (Applicant) to restore fish passage and habitat on the Eklutna River in part through demolition and removal of ANC-1973, the Eklutna Diversion Dam (Undertaking); and

WHEREAS, the Corps has determined that ANC-1973 is eligible for listing in the National Register of Historic Places (NRHP) and the Alaska State Historic Preservation Officer (AKSHPO) has concurred; and

WHEREAS, the Corps has consulted with the AKSHPO pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act (54 U.S.C. 300101 et seq.), as amended and has determined that this Undertaking will have an adverse effect on ANC-1973; and

WHEREAS, the Corps has notified the Advisory Council on Historic Preservation (Council) regarding the adverse effects, and the Council has declined to participate in resolution of the effect; and

WHEREAS, the Applicant has participated in consultation and has been invited by the Corps to sign this MOA as an Invited Signatory; and

WHEREAS, the Corps has consulted with the Native Village of Eklutna (NVE) in accordance with *36 CFR § 800.2(c)*; and

WHEREAS, the Corps has consulted with the Anchorage Historic Preservation Commission, and the Eagle River-Chugiak Historical Society in accordance with *36 CFR § 800.2(c)*; and

NOW, THEREFORE, the Corps, Eklutna, Inc., and the AKSHPO agree that the proposed Undertaking shall be administered in accordance with the following stipulations in consideration of the effects this Undertaking will have on ANC-1973 and to satisfy the Corps' Section 106 responsibilities.

STIPULATIONS

The Corps shall ensure that the following stipulations are implemented:

I. MITIGATION

A. Website

Eklutna Inc. shall develop and host a website to disseminate historical and contemporary information about the Diversion Dam and Eklutna Hydroelectric Project, and the contemporary activity to remove the Dam and restore the Eklutna Canyon.

The website will contain the following elements:

- Existing historical documentation, context and photographs of the Dam and 1920s Eklutna Hydroelectric Project
- Professional photographs of the Diversion Dam and Eklutna Canyon taken in 2016
- Drone and photographic footage of the 2017 removal and restoration activities
- Links to media articles and outreach regarding the Dam removal and restoration project

The website will be publicized through:

- Links on Eklutna Inc. and Native Village of Eklutna websites
- A link on the Municipality of Anchorage's Historic Preservation website

Eklutna Inc. shall launch a review version of the completed website by December 31, 2017 for SHPO review and comment. SHPO will provide comment within 30 days. Following finalization and launch of the website, Eklutna Inc. shall host and maintain the website for a minimum of three (3) years.

Eklutna Inc. shall provide SHPO with a copy of all materials posted to the website, including drone footage, professional photographs, and other imagery.

Eklutna Inc. shall submit copies of drone footage, photographs, and other still and moving imagery associated with the Diversion Dam removal to the University of Alaska Anchorage Archives and Special Collections. Eklutna Inc. shall also submit copies of moving imagery to the Alaska Moving Imagery Preservation Association (AMIPA).

B. Annotated Bibliography

Eklutna Inc. shall prepare an annotated bibliography for all documents, photographs and imagery related to the 1920s Eklutna Hydroelectric Project and the Diversion Dam Removal. The bibliography shall be posted to the website referenced above and a digital copy shall be provided to the SHPO for their use and dissemination.

C. AHRS Card Update

Eklutna Inc. shall update AHRS cards for ANC-1973 (the Eklutna Diversion Dam) and ANC-1991 (the Eklutna Power Plant Tunnel), as well as associated resource ANC-118 (Eklutna Power Plant) with information on the NRHP eligibility, context and state of each resource. The AHRS card update will include professional photographs of the Diversion Dam taken before and after removal.

Updates will be completed by December 1, 2017.

II. HUMAN REMAINS

A. Although unlikely to be encountered, any and all suspected human remains shall at all times be treated with dignity and respect. Should human remains be encountered, work will be stopped at once within 100 ft of the discovery to prevent further disturbance and the remains will be covered with a tarp for protection. The Eklutna Inc. Project Manager will immediately notify the Alaska State Troopers (AST), Alaska State Medical Examiner's Office (SME) Corps, NVE and SHPO:

Alaska State Troopers, Missing Persons Bureau
907-269-5477

Sgt. Kid Chan
907-269-5058
choong.chan@alaska.gov

Stephanie Johnson
907-269-5497
steph.johnson@alaska.gov

*After contact by phone, send email with relevant information and photos to Sgt. Chan and Stephanie Johnson

Alaska State Medical Examiner's Office
Reporting Hotline (Death Hotline) to speak with on-duty investigator
907-334-2356

Stephen Hoage, Operations Administrator
907-334-2202
Stephen.hoage@alaska.gov

Dr. Gary Zientek, Chief Medical Examiner
907-334-2200
Gary.zientek@alaska.gov

US Army Corps of Engineers
Amanda Heath, Project Manager
907-753-5582
amanda.l.heath@usace.army.mil

Native Village of Eklutna
Marc Lamoreaux, Land and Environment Director
907-688-6020
nve.ledirector@eklutna-nsn.gov
or
Maria Coleman,Cultural Manager

907-688-6020

State Historic Preservation Office
Judith Bittner, Chief/State Historic Preservation Officer
907-269-8721
judy.bittner@alaska.gov
or
Richard Vanderhoek, State Archaeologist/Deputy SHPO
907-269-8728
richard.vanderhoek@alaska.gov

B. Eklutna Inc. shall defer to the opinion of the AST and/or State Medical Examiner (SME) for a determination of whether the remains are of a forensic nature and/or subject to criminal investigation.

C. Eklutna Inc. shall consult with AST and/or SME and the above listed entities to determine when and where construction activities may resume.

D. If the AST and SME determine that a death investigation is not warranted, Eklutna Inc. in consultation with NVE and the SME, will identify, locate and inform descendants of the deceased. If no descendants are found, Eklutna Inc. will obtain any necessary permits from the Alaska State Bureau of Vital Statistics and the remains will be re-interred in a designated area.

Alaska Bureau of Vital Statistics
Heidi Lengdorfer, Chief
907-465-8643
heidi.lengdorfer@alaska.gov

For questions regarding disinterment permits or burial transit permits:
Margo Meyer
907-465-8610
margo.meyer@alaska.gov

E. Eklutna Inc. will present construction contractors working on the project with a copy of these procedures, and ensure each worker is verbally instructed in the implementation of the procedures prior to commencement of work at the project site.

III. INADVERTENT DISCOVERIES

If during the implementation of the undertaking a previously unidentified cultural resource is encountered, or a previously identified historic property is affected in an unanticipated manner, the Eklutna Inc. Project Manager shall immediately notify the Corps, SHPO, and NVE. The Eklutna Inc. Project Manager shall cease work within 100 ft of the discovery until the cultural resource or unanticipated effect can be evaluated, and an appropriate treatment plan consistent with the Secretary of the Interior's Standards and Guidelines for Archaeological Documentation (48 FR 44734-44737) is developed.

IV. ANNUAL REPORTING REQUIREMENT

Eklutna, Inc. will provide the Signatories and Concurring Parties an annual report that summarizes the actions of Eklutna, Inc. under this MOA by January 31 for every year this MOA is in effect.

A. Annual reports will include the following information.

- Summary of all actions taken under this MOA.
- Status of meeting each and all stipulations of this MOA.
- Date mitigation action was completed.
- Date of project completion.
- Summary of any photographs that document actions taken.
- Projected list of projects scheduled for coming year.
- Maintenance of products under agreement.
- Signature of preparer of the document.
- Recommendations to amend this MOA or improve communications among the parties.

B. Review of Annual Report: Signatories and Concurring Parties shall have 30 calendar days to review each report and provide review comments to the Corps.

1. Annual Reports will be revised and finalized upon completion of the 30 day review period; copies of the finalized reports will be provided to all Signatories and Concurring Parties.

2. The AKSHPO must comment and/or request additional documentation within 30 calendar days of receipt of the Eklutna, Inc.'s report, otherwise, acceptance will be presumed.

V. REVIEW

The Corps and AKSHPO shall review this MOA annually. This review will occur after the comment period provided in Stipulation IV.B.2 for the annual report.

A. Any amendments to this MOA recommended during the review shall be considered in accordance with Stipulation VII.

B. If the annual review results in a recommendation to terminate the MOA, termination of the MOA shall be considered in accordance with Stipulation VIII.

VI. DISPUTE RESOLUTION

A. Should any signatory to this MOA object in writing to the Corps regarding any action carried out or proposed with respect to the implementation of this MOA, the Corps shall consult with the objecting party and other signatories.

1. If after initiating such consultation the Corps determines that the objection cannot be resolved through consultation, it shall forward all documentation relevant to the objection to the Council, including the Corps' proposed response to the objection.

2. Within 30 calendar days after receipt of all pertinent documentation, the Council shall exercise one of the following options:

   a. Advise the Corps that the Council concurs in the Corps' proposed response to the objection, whereupon the Corps will respond to the objection accordingly.

   b. Provide the Corps with recommendations, which the Corps shall take into account in reaching a final decision regarding its response to the objection.

   c. Notify the Corps that the objection will be referred to the Council membership for formal comment and proceed to refer the objection and comment within 45 calendar days. The Corps shall take the resulting comment into account.

3. Should the Council not exercise one of the above options within 30 calendar days after receipt of the pertinent documentation, the Corps may assume the Council's concurrence in its proposed response to the objections.

B. The Corps shall take into account any Council recommendation or comment provided in accordance with this stipulation with reference only to the subject of the objection; the Corps' responsibility to carry out all actions under this MOA that are not the subjects of the objection shall remain unchanged.

C. At any time during implementation of any stipulation in this MOA, should an objection to any such stipulation or its manner of implementation be raised by a member of the public, the Corps shall take the objection into account and consult as needed with the objecting party, the Council and the AKSHPO to address the objection.

VII. AMENDMENTS

Any signatory to this MOA may request that this MOA be amended, whereupon they will consult with the Corps in accordance with *36 CFR § 800.6 (c)(7)* to consider such amendment.

A. In particular, the signatories will consider the information developed in the Corps' reports under Stipulation IV to determine if the Corps can effectively or efficiently carry out activities to support its mission through revisions to this MOA.

B. No amendment shall take effect until the signatories have signed and executed it.

VIII. TERMINATION

Any signatory to this MOA may propose to terminate this MOA by providing 30-calendar days notice to the other signatories explaining the reasons for the proposed termination.

A. The Corps will consult with the other signatories during this period to seek agreement on amendments or other actions that will avoid termination.

B. In the event of termination, the Corps will request comments of the Council under *36 CFR § 800.7(a)*.

IX. ANTI-DEFICIENCY ACT

All requirements set forth in this MOA requiring the expenditure of Corps funds are expressly subject to the availability of appropriations and the requirements of the Anti-Deficiency Act (31 U.S.C. Section 1341). No obligation undertaken by the Corps under the terms of this MOA will require or be interpreted to require a commitment to expend funds not obligated or appropriated for a particular purpose.

A. If the Corps cannot perform any obligations set forth in the MOA due to the unavailability of funds, the signatories to this MOA intend the remainder of the agreement to be executed.

B. In the event that any obligation under the MOA cannot be performed due to the unavailability of funds, the Corps agrees to utilize its best efforts to renegotiate the provision, and may require that the parties initiate consultation to develop an amendment to this MOA when appropriate.

X. DURATION

This MOA shall become effective upon execution by all Signatories to this MOA and shall remain in effect for three (3) years, unless terminated earlier pursuant to Section VIII.

XI. COORDINATION WITH OTHER FEDERAL REVIEWS

A federal agency that is not a Signatory may use this MOA to satisfy its Section 106 responsibilities for this Undertaking by notifying the Signatories in writing that it agrees to the terms of this Agreement. An amendment need not be executed to add the federal agency requesting to use this MOA and to grant it all the rights and responsibilities stated therein.

XII. EXECUTION AND IMPLEMENTATION

Execution and implementation of this MOA evidences that the Corps has satisfied their Section 106 responsibilities for this Undertaking

MEMORANDUM OF AGREEMENT
AMONG
THE US ARMY CORPS OF ENGINEERS,
THE ALASKA HISTORIC PRESERVATION OFFICER, AND EKLUTNA, INC.,
REGARDING THE DEMOLITION OF THE EKLUTNA DIVERSION DAM (ANC-1973)
NEAR EKLUTNA, ALASKA

SIGNATORIES:

U.S. ARMY CORPS OF ENGINEERS

BY: Shannon Morgan DATE: 11 May 2017
Shannon Morgan
Chief, South Branch

ALASKA STATE HISTORIC PRESERVATION OFFICER

BY: Judith E Bittner DATE: 5-16-2017
Judith E. Bittner
State Historic Preservation Officer

INVITED SIGNATORY

EKLUTNA, INC.

BY: [signature] DATE: 5-18-17

SELF-CERTIFICATION STATEMENT OF COMPLIANCE

Permit Number: POA-2016-248; Eklutna River

Permittee's Name & Address (please print or type):_____

_____

_____

Telephone Number:_____

Location of the Work:_____

_____

Date Work Started:_____ Date Work Completed:_____

PROPERTY IS INACCESSIBLE WITHOUT PRIOR NOTIFICATION: YES _____ NO_____
TO SCHEDULE AN INSPECTION PLEASE CONTACT _____
AT _____

Description of the Work (e.g. bank stabilization, residential or commercial filling, docks, dredging, etc.):_____

_____

_____

Acreage or Square Feet of Impacts to Waters of the United States: _____

Describe Mitigation completed (if applicable): _____

_____

_____

Describe any Deviations from Permit (attach drawing(s) depicting the deviations):

_____

_____

I certify that all work and mitigation (if applicable) was done in accordance with the limitations and conditions as described in the permit. Any deviations as described above are depicted on the attached drawing(s).

_____
Signature of Permittee

_____
Full Name of Permittee (printed or typed)

_____
Date

THE STATE
of ALASKA
GOVERNOR BILL WALKER

Department of Environmental Conservation

DIVISION OF WATER
Wastewater Discharge Authorization Program

555 Cordova Street
Anchorage, Alaska 99501-2617
Main: 907.269.6285
Fax: 907.334.2415
www.dec.alaska.gov/water/wwdp

April 20, 2017

Eklutna Incorporated (Inc.)
Attention: Steve Connelly
16515 Centerfield Drive, Suite 201
Eagle River, AK 99577

Re: Eklutna Inc., Lower Dam Removal
POA-2016-248, Eklutna River

Dear Mr. Connelly:

In accordance with Section 401 of the Federal Clean Water Act of 1977 and provisions of the Alaska Water Quality Standards, the Department of Environmental Conservation (DEC) is issuing the enclosed Certificate of Reasonable Assurance for placement of dredged and/or fill material in waters of the U.S., including wetlands and streams, associated with the removal of the dam on the lower portion of Eklutna River, near Eagle River, AK.

DEC regulations provide that any person who disagrees with this decision may request an informal review by the Division Director in accordance with 18 AAC 15.185 or an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340. An informal review request must be delivered to the Director, Division of Water, 555 Cordova Street, Anchorage, AK 99501, within 15 days of the permit decision. Visit http://dec.alaska.gov/commish/ReviewGuidance.htm for information on Administrative Appeals of Department decisions.

An adjudicatory hearing request must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Avenue, Suite 303, PO Box 111800, Juneau, AK 99811-1800, within 30 days of the permit decision. If a hearing is not requested within 30 days, the right to appeal is waived.

By copy of this letter we are advising the U.S. Army Corps of Engineers of our actions and enclosing a copy of the certification for their use.

Sincerely,

James Rypkema
Program Manager, Storm Water and Wetlands

Enclosure: 401 Certificate of Reasonable Assurance

cc: (with encl.)
Amanda Whittier, USACE, Anchorage
Erin Cunningham, HDR
Sean Eagan, NOAA
Megan Marie, ADF&G
USFWS Field Office Anchorage
Heather Dean, EPA Operations, Anchorage

STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CERTIFICATE OF REASONABLE ASSURANCE

In accordance with Section 401 of the Federal Clean Water Act (CWA) and the Alaska Water Quality Standards (18 AAC 70), a Certificate of Reasonable Assurance, is issued to Eklutna Inc., attention: Steve Connelly, at 16515 Centerfield Drive, Suite 201, Eagle River, AK 99577, for placement of dredged and/or fill material in waters of the U.S. including wetlands and streams in association with the removal of the low head dam on the lower Eklutna River, near Eagle River, AK.

Eklutna Inc., in partnership with The Conservation Fund, is proposing to deconstruct the lower Eklutna River dam, near the Native Village of Eklutna, Alaska. The Eklutna River flows from the Eklutna Glacier in the Chugach Mountains into Cook Inlet's Knik Arm. The Eklutna River mouth is approximately 25 miles northeast of Anchorage. The lower Eklutna River dam stands approximately 70 feet tall and 100 feet wide within in a steepwalled canyon approximately 7 miles downstream of Eklutna Lake. The concrete dam was initially constructed in 1929 but has been functionally obsolete since it was abandoned in the 1950s.

The purpose of the project is to remove the functionally obsolete lower Eklutna River dam, which will restore some natural stream function currently inhibited by the dam's presence. A large volume of sediment has accumulated behind the dam since maintenance was discontinued in the 1950s.

Deconstructing the dam will require excavating portions of the sediment plug to access the dam, and relocating the excavated sediment downstream. The remaining sediment will be left in the channel and transported downstream by natural river functions. The proposed project would include:

- Construction of temporary stream diversions for the Eklutna River and a tributary stream. For both stream diversions, an inflatable bladder type diversion dam would be angled across the channel to direct flow into an adjacent diversion pond, where a diversion pipe fitted with a slip gate would convey water downstream. The diversion pipes would extend to the face of the dam.
- Construction of a Bulldozer Route Downstream of the Dam. The applicant anticipates that once sediment is cast downstream of the dam, the sediment would need to be mechanically transported farther downstream to avoid sediment accumulation in the canyon's constriction points. Prior to sediment relocation and dam removal, the applicant proposes to construct a safe access route for the bulldozer by regrading existing substrate along the streambank. The route would extend about 700 feet downstream of the dam, to another constriction point visible on imagery.
- Construction of temporary excavation dewatering sumps. Four temporary dewatering sumps would be excavated and operated in the Eklutna River upstream of the dam within the bypass reach prior to and during sediment removal.
- Sediment relocation and dam deconstruction, which would begin once the Eklutna River and tributary were diverted and the temporary sumps were in place. Sediment relocation is anticipated to begin in mid-June 2017. Sediment from behind the dam would be relocated in order to access and safely remove the dam. To maintain safe working conditions, the sediment relocation and dam deconstruction would be an incremental process.

- During sediment relocation and dam deconstruction activities, the Eklutna River would be visually inspected for sediment deposition and scour at locations downstream of the dam in the vicinity of the Alaska Department of Transportation and Public Facility (ADOT&PF) and/or the Alaska Railroad Corporation (ARRC) crossing sites. A monitoring plan, which is currently under development, would include an emergency action plan in the event that sediment deposition related to dam removal threatens either bridge crossing. Post construction sediment monitoring at the established cross-sections would be continued in subsequent years after the 2017 dam removal. The post construction monitoring plan is forthcoming.
- Demobilization and site restoration would involve removing metal and other debris from the canyon bottom and the remaining sediment would be graded into a stable condition. The temporary diversion structures, bypass pipes and culverts would be removed and the two diversion ponds backfilled. The activities during the 2016 site preparation would also be restored.

The impacts from the proposed project would be 2,400 cubic yards (CY) of temporary fill into 0.74-acre of waters of the U.S. for the various work areas, 186.1 CY of temporary diversion structures, and 21,000 CY of relocated sediment downstream of the dam. The project will cause brief exceedances of water quality criteria in the Eklutna River. Longer duration exceedances of the turbidity criterion in the Eklutna River will occur due to sediment transport. However, the dam removal will provide permanent benefits to fish, other aquatic life, and recreational uses.

Review of sediment transport modeling, generally all sediment gradations, other than the coarsest armor layer, are transported out of the Lower Eklutna Dam sediment plug within approximately one to two years with the finer sediments generally conveyed through the Eklutna River reach and into the Knik Arm. In the Eklutna River, within and downstream of the former dam, exceedances of the turbidity criterion and any other adverse water quality effects will occur for up to several months after the dam is breached as the stream begins to stabilize and resemble existing conditions upstream of the sediment plug. Brief, intermittent effects may occur thereafter with diminishing frequency and less severe in magnitude for a period that cannot be precisely determined because the effects are dependent on the size and frequency of future flood events as the stream channel reestablishes itself. The duration of exceedances that will occur more than two years after the dam is breached, is unlikely to exceed more than a few days.

A state issued water quality certification is required under Section 401 because the proposed activity will be authorized by a U.S. Army Corps of Engineers permit (POA-2016-248) and a discharge of pollutants to waters of the U.S. located in the State of Alaska may result from the proposed activity. Public notice of the application for this certification was given as required by 18 AAC 15.180 in the Corps Public Notice POA-2016-248 posted from December 5, 2016 to January 6, 2016.

The proposed activity is located within Sections 29 & 30, T. 16 N., R. 1 E., Seward Meridian; Latitude 61.44954° N., Longitude -149.32979° W.; near Eagle River, Alaska.

The Department of Environmental Conservation (DEC) reviewed the application and certifies that there is reasonable assurance that the proposed activity, as well as any discharge which may result, will comply with applicable provisions of Section 401 of the CWA and the Alaska Water Quality Standards, 18 AAC 70, provided that the following additional measures are adhered to.

1. Reasonable precautions and controls must be used to prevent incidental and accidental discharge of petroleum products or other hazardous substances. Fuel storage and handling activities for equipment must be sited and conducted so there is no petroleum contamination of the ground, subsurface, or surface waterbodies.
2. During construction, spill response equipment and supplies such as sorbent pads shall be available and used immediately to contain and cleanup oil, fuel, hydraulic fluid, antifreeze, or other pollutant spills. Any spill amount must be reported in accordance with Discharge Notification and Reporting Requirements (AS 46.03.755 and 18 AAC 75 Article 3). The applicant must contact by telephone the DEC Area Response Team for Central Alaska at (907) 269-3063 during work hours or 1-800-478-9300 after hours. Also, the applicant must contact by telephone the National Response Center at 1-800-424-8802.
3. During the construction equipment shall not be operated below the ordinary high water mark if equipment is leaking fuel, oil, hydraulic fluid, or any other hazardous material. Equipment shall be inspected on a daily basis for leaks. If leaks are found, the equipment shall not be used and pulled from service until the leak is repaired.
4. All work areas, material access routes, and surrounding wetlands involved in the construction project shall be clearly delineated and marked in such a way that equipment operators do not operate outside of the marked areas.
5. Excavated or fill material, including overburden, shall be placed so that it is stable, meaning after placement the material does not show signs of excessive erosion. Indicators of excess erosion include: gullying, head cutting, caving, block slippage, material sloughing, etc. The material must be contained with siltation best management practices (BMPs) to preclude reentry into any waters of the U.S., which includes wetlands.
6. Fill material (including dredge material) must be clean sand, gravel or rock, or concrete rubble from the dam (used as armor for slopes), free from petroleum products and toxic contaminants in toxic amounts.
7. Water quality parameters of turbidity, dissolved oxygen, conductivity, temperature, and pH will be monitored per the Eklutna Aquatic Habitat Monitoring plan monitoring schedule. Data analysis and monitoring reports will be provided to DEC per the reporting schedule as identified in the monitoring plan, DEC Division of Water (Attn: James Rypkema, 555 Cordova Street, Anchorage, AK 99577, 907-334-2288, james.rypkema@alaska.gov and DEC.Water.WQPermit@alaska.gov).

This certification expires five (5) years after the date the certification is signed. If your project is not completed by then and work under U.S. Army Corps of Engineers Permit will continue, you must submit an application for renewal of this certification no later than 30 days before the expiration date (18 AAC 15.100).

Date: April 20, 2017

James Rypkema

James Rypkema, Program Manager
Storm Water and Wetlands