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, Program Manager
Storm Water and Wetlands