US Army Corps
of Engineers
Alaska District

KENAI FIELD OFFICE
Regulatory Division (1145)
CEPOA-RD
44669 Sterling Highway, Suite B
Soldotna, Alaska 99669-7915

Public Notice of Application for Permit

PUBLIC NOTICE DATE:	**November 14, 2017**
EXPIRATION DATE:	**December 14, 2017**
REFERENCE NUMBER:	**POA-1980-133-M9**
WATERWAY:	**Terror Lake**

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

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

Comments on the described work, with the reference number, should reach this office no later than the expiration date of this Public Notice to become part of the record and be considered in the decision. Please contact Mr. Jamie Hyslop at (907) 753-2670, or by email at Jamie.R.Hyslop@usace.army.mil if further information is desired concerning this notice.

APPLICANT: Ms. Jennifer Richcreek, Kodiak Electric Association, Inc., Post Office Box 787, Kodiak, Alaska 99615

LOCATION: The project site is located within Sections 28 and 33, R. 29 S., T. 23 W., and Sections 4, 5, 6, and 8, R. 30 S., T. 23 W., Seward Meridian; USGS Quad Map Kodiak C-3 and C-4; Latitude 57.6135º N., Longitude 153.0352º W.; remotely located along the east side of Terror Lake, within the Kodiak Borough, Alaska.

SPECIAL AREA DESIGNATION: The project is located within the Kodiak National Wildlife Refuge.

PURPOSE: To construct and operate a new renewable energy project to meet the immediate and future need for renewable electrical energy demand for the community served by Kodiak Electric Association, Inc.

The Vision of Kodiak Electric Association, Inc. (KEA) is to "Endeavor to maintain 98% of energy sales with cost effective renewable power solutions for the future of our members and the community."

PROPOSED WORK: The applicant proposes to discharge of 154,870 cubic yards of locally sourced crushed rock, into waters of the U.S., permanently impacting a total of 44.04 acres of wetlands and 4,329 linear feet of streams in order to construct two rockfill diversion dams within the Upper Hidden Basin (Upper Hidden Basin Diversion (UHBD)), a conveyance system to divert water from the Upper Hidden Basin to Terror Lake, a tunnel rock disposal site, three construction staging areas, and an access road for construction and operation of the system. The proposed project is estimated to add 33 million kilowatt-hours of hydropower capacity to the existing Terror Lake Hydroelectric Project. Specifically, this project would include:

1. East Diversion Dam: Construct a 30 feet high by 250 feet long by 170 feet wide dam resulting in the discharge of 5,700 cubic yards of fill, comprised of 95% locally sourced crushed rock and 5% concrete reinforcement supports, into 1.15 acres of wetlands and 170 linear feet of stream (see sheet 6). Flows would be diverted through a 0.5 mile long, 5 foot diameter underground pipeline to the West Diversion Dam (See sheets 7-8).

2. West Diversion Dam: Construct a 30 feet high by 250 feet long by 170 feet wide dam resulting in the discharge of 5,850 cubic yards of fill, comprised of 95% locally sourced crushed rock and 5% concrete reinforcement supports, into 2.56 acres of wetlands and 170 linear feet of stream (see sheet 9).

3. Downstream Tunnel Portal: Construct a 1.2 mile long, 12 foot diameter tunnel from the West Diversion Dam to Terror Lake. The downstream tunnel apron of the Downstream Tunnel Portal would result in the discharge of 140 cubic yards of locally sourced rock fill into 1.26 acres of wetlands adjacent to Terror Lake, and 102 linear feet of stream (see sheet 10).

4. Tunnel Rock Overburden Site: The 1.2 mile tunnel would generate 34,565 cubic yards of spoils which would be discharged adjacent to Terror Lake, into 8 acres of wetlands and 2,445 linear feet of streams. The tunnel rock overburden would be graded to simulate natural contours, covered with previously removed top soil, and revegetated (see sheet 10).

5. Access Road: Construct a 4.5 mile long access road with a crest width of 16 feet and a base width ranging between 16-250 feet depending on topography. Road construction would result in the discharge of 36,500 cubic yards of locally sourced crushed rock fill into 14.83 acres of wetlands and 703 linear feet of stream (see sheets 2-9).

6. Construction Staging Areas: Construct three staging areas resulting in the overall discharge of 72,115 cubic yards of locally sourced crushed rock fill into 16.24 acres of wetlands and 739 linear feet of stream.

a. construction staging area for the West Diversion Dam would discharge 20 cubic yards of crushed rock impacting 0.09-acre of wetland (see sheet 8),
b. construction staging area for the East Diversion Dam would discharge 71,045 cubic yards of crushed rock impacting 15.05 acres of wetlands (see sheet 6),
c. construction staging area for the Downstream Tunnel Portal would discharge 1,050 cubic yards of crushed rock impacting 1.1 acre of wetland and 739 linear feet of stream (see sheet 10).

All work would be performed in accordance with the enclosed plan (sheets 1-14), dated November, 2017.

ADDITIONAL INFORMATION: This project has undergone review through the Federal Energy Regulatory Commission (FERC) National Environmental Protection Act process. FERC finalized an Environmental Assessment in May 2017. On June 28, 2017, the FERC issued an Order Amending License to KEA authorizing the Upper Hidden Basin Diversion project (FERC 2743-079).

On July 31, 2017, the U.S. Fish and Wildlife Service issued a right-of-way permit (E-315-KD) authorizing an expansion of the FERC project boundary on Refuge lands for the UHBD tunnel and downstream tunnel portal.

On April 14, 2015, KEA filed an application to occupy Alaska State land. On April 12, 2017, the State of Alaska granted an easement (ADL 232213) Entry Authorization for the access road and conveyance pipe. KEA has applied for a land lease (232556) for the diversion dams and upstream tunnel portal and is pending a final decision.

On September 24, 2015, the Alaska State Department of Natural Resources (DNR) established provisional priority date for the eventual Water Right (LAS 30459) for the ongoing operation of the project. On May 11, 2016, DNR issued a Temporary Water Use Authorization (TWUA J2016-01) for the temporary construction of the project.

On July 19, 2017, the Kodiak Island Borough Planning and Zoning Commission approved Conditional Use Permit (Case 17-032).

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

A. Avoidance: The UHBD consists of three primary components: 1) road, 2) diversion dams and associated construction staging areas, and 3) downstream tunnel portal and associated construction staging area. On-site alternatives for avoiding wetlands for each of these three components are explained below.

Road Alignment: The UHBD area is remotely located approximately four miles south of the Terror Lake Hydroelectric Project's existing access road. A new road spur approximately 4.5 miles in length is needed to provide construction and maintenance access from the Terror Lake Hydroelectric Project's existing access road to the D-East and D-West diversion dams. KEA assessed four alternatives for the alignment of this new road to avoid wetlands and streams (see sheet 13). Alternative 1 would impact 22.50 acres of wetlands and

2,427 linear feet (LF) of streams. Alternative 2 would impact 21.30 acres of wetlands and 1,494 LF of streams. Alternative 3 would impact 16.64 acres of wetlands and 752 LF of streams. Alternative 4 is a modified version of the Alternative 3 alignment with road corridor widths reduced to the furthest extent practicable in wetland and stream areas while still providing safe working conditions for constructing a stable roadbed in the area's constrained topography. The final constructed road surface is designed to only be 16 feet wide, but the limits of disturbance around the road surface need to be wider for the construction of a safe and stable road bed. Alternative 4 provides flexibility for construction to adapt to land contours in non-wetland areas, but reduces the limit of disturbance in the wetland areas to the furthest extent practicable. Alternative 4 impacts 14.83 acres of wetlands and 703 LF of streams. Alternative 4 is KEA's preferred alternative for the access road alignment, and is presented as the road portion of the proposed project.

Diversion Dam and Associated Staging Area: Water resources in the Upper Hidden Basin area will be conveyed passively to the Terror Lake reservoir by gravity. Site selection and configuration of the diversion dam areas are fixed by site elevation and geotechnical stability for structural integrity and gravity-fed conveyance. KEA assessed three alternatives for the division dam area and associated construction staging areas to avoid wetlands and streams (See sheet 14). Alternative 1, concrete face rockfill dams: would require the operation of an onsite concrete batch plant to supply the necessary volume and quality of concrete during dam construction. Alternative 1 would impact 24.70 acres of wetlands and 90 LF of streams. Alternative 2, membrane face rockfill dams: This dam type does not require the operation of an onsite concrete batch plant. The concrete required to construct incidental structures associated with a membrane face rockfill dam type may be batched from preblended dry mixes shipped in large sacks with relatively small equipment operated in a limited area. Alternative 2 would impact 20.40 acres of wetlands and 90 LF of streams. Alternative 3 is a modified version of the Alternative 2, with construction staging areas reduced to the furthest extent practicable in wetland and stream areas while still providing safe working conditions for constructing the diversion dams in the area's constrained topography. Alternative 3 would impact 19.6 acres of wetlands. Alternative 3 is KEA's preferred alternative for the diversion dam and associated construction staging area, and is presented as the diversion dam and associated construction staging area portion of the proposed project.

Downstream Tunnel Portal and Associated Staging Area: Two conceptual alternatives for minimizing the limits of disturbance on Refuge land were initially examined but rejected, and not considered further, due to worker safety: 1) constructing the tunnel from the upstream portal to avoid rock accumulation on Refuge land, and 2) dumping tunnel rock into Terror Lake. These concepts are not presented as viable wetland avoidance alternatives because of the extreme and unacceptable worker safety risk they would incur. Water inflows will likely be present during tunnel construction, and these water inflows must be able to drain out of the tunnel for safe working conditions. Tunnel construction therefore requires starting from the Terror Lake side of the Project and boring uphill to allow any water inflows to safely exit the tunnel by gravity. Constructing the tunnel from the Terror Lake side means that tunnel rock must come out on the Terror Lake side of the project. Dumping this tunnel rock into the Terror Lake reservoir rather than stacking it on land would involve dangerous weight loading conditions on a floating platform with multiple handling of the rock material over a windy and potentially freezing lake surface. Both of these concepts are too dangerous and create the risk of construction worker death. The proposed Tunnel Portal and Staging area has avoided waters of the U.S. to the furthest extent practicable while still providing safe working conditions

for accessing and constructing the downstream tunnel portal. The proposed alternative would impact 10.36 acres of wetlands and 3,286 LF of streams. The proposed alternative is KEA's preferred alternative for the downstream tunnel portal and associated staging area.

B. Minimization: To ensure that wetlands outside the proposed project are not impacted, KEA will stake and flag the proposed project's limits of disturbance. Visually delineating the limits of disturbance will ensure that construction activities will not exceed the areas described in this application as the proposed project. To minimize fill impacts within the proposed project's limits of disturbance, KEA will require the construction contractor to utilize the following specific steps as conditions of the contractual agreement. Specifications required by the contractual agreement include:

1. The construction contractor will conduct their work as per their custom-written Stormwater Pollution Prevention Plan developed in accordance with the Alaska Department of Environmental Conservation's Alaska Pollutant Discharge Elimination System General Permit for Discharges from Large Construction Activities, Permit No. AKR100000.

2. Sediment fences shall consist of minimum 14 gage woven wire with a maximum mesh spacing of six inches and attached to metal posts. Posts shall be 1.33 pound per linear foot steel and a minimum length of five feet. Fabric shall be stapled or wired securely to the support fence.

3. All fiber rolls shall be biodegradable and will be properly staked with wood and trenched in 2-4 inch trenches. The construction contractor shall install the fiber rolls on slopes 19.6 feet apart for slope inclinations of 1:4 or flatter, 14.7 feet apart on slope inclinations of 1:4 to 1:2, and 9.8 feet apart on slope inclinations of 1:2 or greater. Fiber rolls shall be placed along the toe, face, and at grade breaks of exposed and erodible slopes to shorten slope length and spread runoff as sheet flow, and placed around the perimeter of the proposed project.

4. All erosion control devices shall be inspected and repaired as necessary at least once every seven days and also within 24 hours after any rainfall event of 0.5 inches or greater occurring within a 24 hour period. All erosion control devices shall be checked after the winter season for failures and reinstalled, or modified as needed.

5. Failure to comply with these standards or field directives or failure to perform any required erosion control measure will result in notification by KEA to the Contractor, directing remedial action to bring controls into compliance.

Protection and avoidance measures relating to aquatic resources, and erosion and sedimentation control are specifically addressed in KEA's Contract Terms and Conditions document, provided in the FERC Order. KEA will provide an Environmental Compliance Monitor (ECM) during construction to ensure compliance with the conditions of Alaska Department of Environmental Conservation's Alaska Pollutant Discharge Elimination System General Permit for Discharges from Large Construction, and the Clean Water Act Section 404 permit (if issued), which will both contain conditions designed to minimize fill impacts to waters of the US. The ECM would be periodically onsite during construction, and be available as needed to communicate with contractor personnel regarding wetland protection specifications

and any identified issues regarding aquatic resource protection. A description of the duties and authority of the ECM is provided in the FERC Order.

C. Compensatory Mitigation: KEA acknowledges after all practicable avoidance and minimization approaches are utilized, unavoidable impacts to waters of the US would still occur because of the inherent nature and site-specific requirements of this renewable energy project. If compensatory mitigation is required for the UHBD, the US Army Corps of Engineers (Corps) standard compensatory mitigation mechanisms (e.g., in-lieu fee program, mitigation bank, permittee-responsible mitigation) are not available or practicable in Kodiak, Alaska. The UHBD is located in an extremely remote area in the center of Kodiak Island. Conducting mitigation activities in the vicinity of the UHBD is not practical because it would likely result in greater impacts by expanding more activity for a longer duration in the remote area. There are no third-party providers for mitigation banking or in-lieu fee programs in the area. Considering these unique circumstances, KEA proposes to support an offsite and out of kind local community project as compensation to offset the UHBD's unavoidable impacts.
The Lake Orbin project is a multi-stakeholder, collaborative community project in which KEA proposes to donate time, materials and funding, along with other agencies and organizational partners. Collaborators include the Kodiak Soil and Water Conservation District, US Fish and Wildlife Service, Alaska Department of Fish & Game and the Kodiak Island Borough. No single agency is taking full responsibility for the project; however, the Kodiak Soil and Water Conservation District is the coordinator to the various stakeholders and it would not be appropriate for KEA to assume a management or coordinating role for this project.

The Lake Orbin watershed is approximately 130 acres in size and includes Lee Lake, Lake Orbin, and adjacent unnamed tributaries. According to the Alaska Department of Fish and Game Lake Orbin and its adjacent tributaries are identified as important waterbodies for the spawning, rearing and presence of coho Salmon (*Oncorhynchus kisutch*) and Dolly Varden (*Salvelinus malma*). The AWC identifies the Lake Orbin inlet as a barrier to fish passage due to a restrictive culvert underneath Middle Bay Drive and a debris dam approximately 800 feet upstream of that problem culvert. The Kodiak Soil and Water Conservation District observed reed canarygrass (*Phalaris arundinacea*) in the area. This aggressive invasive weed is known to migrate out of pastureland and into lake and stream banks to form dense, persistent, monospecific matted stands and excludes native wetland vegetation. The extent of the reed canarygrass infestation is not fully known yet, but its ability to impair stream function in the watershed is a concern. The ecological function of the Lake Orbin watershed area and its aquatic resources are impaired by the old culvert, debris dam and potential invasive weed infestation.

KEA proposes to support Lake Orbin watershed rehabilitation by donating funds directly to the Kodiak Soil and Water Conservation District for their collaborative effort to replace the existing Middle Bay Drive culvert, remove the debris dam, and survey and remove invasive weeds. KEA also proposes to donate time and materials to relocate a power line conduit in the culvert that will be replaced with an improved culvert design to meet fish passage standards. Supporting the removal of these physical and biological barriers to the Lake Orbin watershed would improve the ecological function of the lakes, streams and wetlands in this area. Eradicating fragmentation would create continuous habitat from Womens Bay to Russian Creek to Lake Orbin to Lee Lake and potentially increases in the acreage of saturated, or seasonally or permanently flooded wetlands throughout the area. Removing barriers to fish migration would allow anadromous fish passage to reach the upper extent of the watershed.

Removing invasive reed canarygrass would allow native wetland vegetation to reestablish throughout the area. Rehabilitating small stream connectivity and native wetland vegetation in this area would improve aquatic wildlife movement, nutrient connectivity, sediment transport, and groundwater discharge/recharge to support a cumulative increase to overall wetland habitat.

If compensatory mitigation is required for the UHBD, KEA is requesting the Corps approve the concept of KEA contributing to the Lake Orbin project and recognize this contribution as compensation for unavoidable impacts to waters of the U.S. resulting from the construction of the UHBD. Upon Corps approval, KEA proposes to develop a Memorandum of Understanding with the Kodiak Soil and Water Conservation District to define the amount of time, materials and funding to be donated. If the Corps requires specific monitoring or reporting requirements to demonstrate Lake Orbin's successful rehabilitation, KEA would specify those requirements in the proposed Memorandum of Understanding.

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

CULTURAL RESOURCES: The lead Federal agency, FERC, is responsible for compliance with the requirements of Section 106 of the National Historic Preservation Act. In a letter dated June 9, 2015, (File No. 3130-1R FERC) the Alaska SHPO concurred with the FERC finding of no historic properties affected. The Corps has reviewed the Section 106 documentation from FERC and concurs with their findings and determinations.

ENDANGERED SPECIES: The lead Federal agency, FERC, is responsible for compliance with the requirements of Section 7 of the Endangered Species Act (ESA). In a letter dated June 9, 2015, the United States Fish and Wildlife Services (USFWS) and National Marine Fisheries Service (NMFS) stated that there are no federally listed threatened and endangered species or critical habitat within the project area. The Corps has reviewed the Section 7 documentation from FERC and concurs with their findings and determinations. There would be no effect to threatened or endangered species or critical habitat as a result of this project.

ESSENTIAL FISH HABITAT: The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996, requires all Federal agencies to consult with the NMFS on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). The lead Federal agency, FERC, is responsible for compliance with the requirements of the Magnuson-Stevens Act. Although, no EFH species are known to use the project area, chum salmon (*Oncorhynchus keta*), pink salmon (*Oncorhynchus gorbuscha*), and coho salmon (*Oncorhynchus kisutch*) occur in lower reaches of Hidden Basin Creek. To ensure this project would not adversely affect EFH species, FERC agreed to the following NMFS provided conservation recommendation: "KEA shall design, install, and operate a pipe that would provide a minimum of one cfs [cubic feet per second] of instream flow downstream of the UHBD during the period of July 15 through September 30, provided the water is available for discharge. The exact diversion point will be determined by KEA engineers; however, the water would be returned to the west fork of the Upper Hidden Basin Creek below the western diversion. The pipe will

have a spigot and KEA will report the opening and closing date of that spigot each year in one of its existing required annual reports."

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

PUBLIC HEARING: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, reasons for holding a public hearing.

EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity and its intended use on the public interest. Evaluation of the probable impacts, which the proposed activity may have on the public interest, requires a careful weighing of all the factors that become relevant in each particular case. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. The outcome of the general balancing process would determine whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur. The decision should reflect the national concern for both protection and utilization of important resources. All factors, which may be relevant to the proposal, must be considered including the cumulative effects thereof. Among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving 404 discharges, a permit will be denied if the discharge that would be authorized by such permit would not comply with the Environmental Protection Agency's 404(b)(l) guidelines. Subject to the preceding sentence and any other applicable guidelines or criteria (see Sections 320.2 and 320.3), a permit will be granted unless the District Commander determines that it would be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

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

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

Project drawings and a Notice of Application for State Water Quality Certification are enclosed with this Public Notice.

District Commander
U.S. Army, Corps of Engineers

Enclosures

BILL WALKER, GOVERNOR

STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION
DIVISION OF WATER
401 Certification Program
Non-Point Source Water Pollution Control Program

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WQM/401 CERTIFICATION
555 CORDOVA STREET
ANCHORAGE, ALASKA 99501-2617
PHONE: (907) 269-7564/FAX: (907) 334-2415

NOTICE OF APPLICATION FOR STATE WATER QUALITY CERTIFICATION

Any applicant for a federal license or permit to conduct an activity that might result in a discharge into navigable waters, in accordance with Section 401 of the Clean Water Act of 1977 (PL95-217), also must apply for and obtain certification from the Alaska Department of Environmental Conservation that the discharge will comply with the Clean Water Act, the Alaska Water Quality Standards, and other applicable State laws. By agreement between the U.S. Army Corps of Engineers and the Department of Environmental Conservation, application for a Department of the Army permit to discharge dredged or fill material into navigable waters under Section 404 of the Clean Water Act also may serve as application for State Water Quality Certification.

Notice is hereby given that the application for a Department of the Army Permit described in the Corps of Engineers' Public Notice No. **POA-1980-133-M9, Terror Lake**, serves as application for State Water Quality Certification from the Department of Environmental Conservation.

After reviewing the application, the Department may certify there is reasonable assurance the activity, and any discharge that might result, will comply with the Clean Water Act, the Alaska Water Quality Standards, and other applicable State laws. The Department also may deny or waive certification.

Any person desiring to comment on the project, with respect to Water Quality Certification, may submit written comments to the address above by the expiration date of the Corps of Engineer's Public Notice.