

*FINAL*  
**ENVIRONMENTAL ASSESSMENT**  
**FOR A**  
**COMBINED POWER AND BIOMASS HEATING SYSTEM**  
**FORT YUKON, ALASKA**

**APPENDIX B**  
**AGENCY CORRESPONDENCE**



# APPENDIX B

## Agency Correspondence

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### Department of Energy

Golden Field Office  
1617 Cole Boulevard  
Golden, Colorado 80401-3393

November 7, 2012

Judith E. Bittner, State Historic Preservation Officer  
Alaska Office of History and Archaeology  
Alaska Department of Natural Resources  
550 West 7<sup>th</sup> Avenue, Suite 1310  
Anchorage, AK 99501-3565

SUBJECT: SECTION 106 CONSULTATION FOR THE FORT YUKON COMBINED  
BIOMASS HEATING SYSTEM PROJECT (FILE NO. 3130-2R AEA)

Dear Ms. Bittner:

The U.S. Department of Energy (DOE), U.S. Department of Agriculture (USDA) Rural Utility Services and the Denali Commission are considering authorizing the expenditure of Federal funding to implement a Combined Biomass Heating System in Fort Yukon, Alaska, and will be developing an Environmental Assessment for the project in accordance with the National Environmental Policy Act. The funding would be used for the purchase of diesel generators and a high efficiency boiler, the installation of a new diesel power plant with heat recovery and the high efficiency boiler fired by wood chips, a wood chip storage area, harvesting equipment, a shop to protect and work on equipment and a district heating loop to distribute heat to local users. To support operation of the wood-fired boiler, approximately 1,600 – 2,000 green tons of woody biomass would be harvested from surrounding private lands owned by the Gwitchyaa Zhee Corporation each year.

The proposed project was reviewed by your agency earlier this year, and you concurred that no historic properties would be affected (Date 2/14/2012; File no. 3130-2R AEA). However, harvesting of timber to supply the biomass for the project was not addressed. Because that harvesting is an action connected to the operation of the facility, these activities are being evaluated by DOE and the above cooperating agencies. Pursuant to Section 106 of the National Historic Preservation Act of 1966 (NHPA) and its associated implementing regulations, DOE, as the lead agency for the Environmental Assessment, is requesting concurrence from your office that no historic properties would be affected by the proposed project, including the harvesting of timber.

#### Project Description

The location and design of the combined heat and power facility and heat and energy distribution systems are the same as considered previously (Figure 1). The forested areas to be harvested are located within T20N, R11E & 12E and T21N, R11E, Fairbanks Meridian; USGS Quad map Fort Yukon C-5 (Figure 2). The Area of Potential Effect (APE) for this proposed project includes the locations of the heat and power plant and distribution system that you previously evaluated (Figure 1), plus the harvest and storage areas shown in Figure 2.

In compliance with the Alaska State Forest Practices Act, Gwitchyaa Zhee Corporation has developed a Forest Stewardship Plan to ensure that the forest resource is managed and protected for sustainable and healthy biomass production, wildlife protection and wild land fire management. The project will selectively harvest woody biomass in accordance with the Fort Yukon Forest Stewardship Plan.

The Alaska Historic Resources Survey was reviewed by Alison Sterley, Cultural Resource Specialist at Alaska Energy & Engineering, Inc. for the presence of historic properties in the APE on November 9 and December 15, 2011. The Northern Land Use Research December 2003 report on Fort Yukon was also reviewed for the presence of historic properties in the APE. No historic properties were identified in the APE.

The Council of Athabascan Tribal Governments Natural Resources Department has prepared an extensive GIS mapping database of known culturally significant and historical subsistence use areas. The Gwitchyaa Zhee Gwich'in Tribal Government Lands Committee, consisting of Tribal, Corporation, and community members, has individually selected the harvest locations to avoid areas of cultural use. All stands to be harvested will be examined prior to harvest to verify no unmapped historical sites are apparent. Newly discovered sites will be avoided and reported to the Alaska State Historic Preservation Office and Tribal Government Lands Committee. No digging or ground disturbance will occur near any historic site.

Fort Yukon area has a long history of human habitation and use. This project includes a vegetative buffer zone of 100-feet in accordance with the Alaska Forest Practices Act along waterways that will serve to protect cultural resources along waterways that may be present yet not immediately evident. The harvest practices proposed for this project are designed to have low impacts on the environment and coincide with economic efficiencies for the community. Harvest will primarily be in the winter months on frozen ground, using small-scale equipment for harvest and transport. Vegetative buffer areas are designated along creeks and rivers. No timber harvest roads will be constructed.

#### Determination

Due to the lack of cultural and historic resources being identified in the research described above, the fact that no new harvest roads will be constructed, and that most of the activities would occur in the winter, DOE, Rural Utility Services, and the Denali Commission have determined that there would be no historic properties affected by the proposed project. In compliance with 36 CFR Part 800.4(d)(1), these agencies ask the Alaska State Historic Preservation Officer for concurrence in this finding.

Although no cultural or historic resources were found during the review described above, DOE requires as part of best management practices for any project with ground disturbing activities that if the funding recipient or their staff encounters cultural materials (i.e., historic or prehistoric), all activities cease in the vicinity of the discovery immediately, and the State Historic Preservation Officer and the Gwitchyaa Zhee Gwich'in Tribal Government are to be informed of the discovery immediately.

Please forward the results of your review and any requests for additional information to me as soon as possible using the contact information below.

Sincerely,



Casey Strickland  
NEPA Document Manager  
U.S. Department of Energy  
Golden Field Office  
1617 Cole Boulevard  
Golden, Colorado 80401  
Phone: 720-356-1575  
Fax: 720-356-1350  
casey.strickland@go.doe.gov

Enclosures: Figure 1 – CHP Plant and Distribution System  
Figure 2 – Project Location, Harvest and Storage Areas

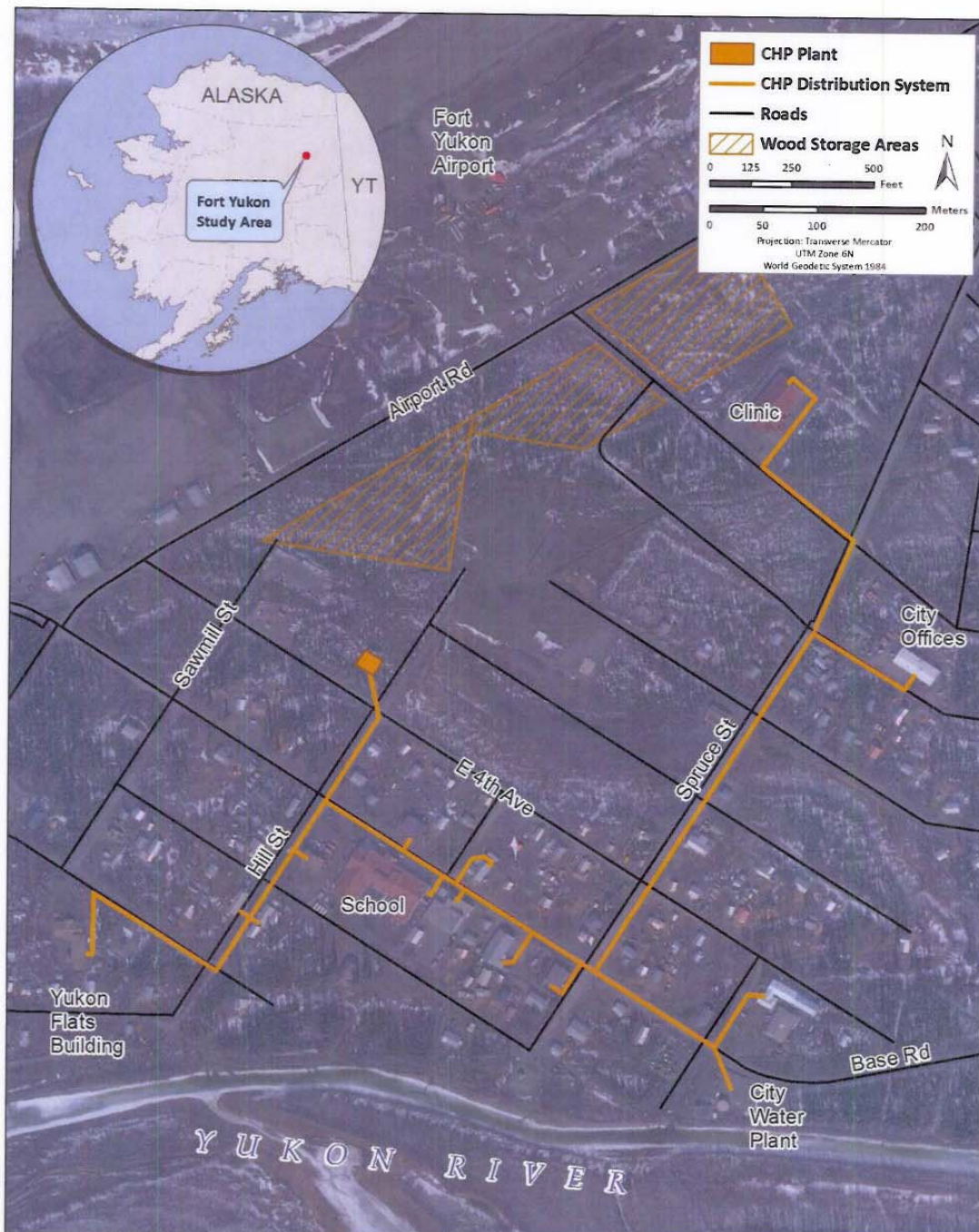


Figure 1 - CHP Plant and Distribution System

Source: Microsoft Virtual Earth

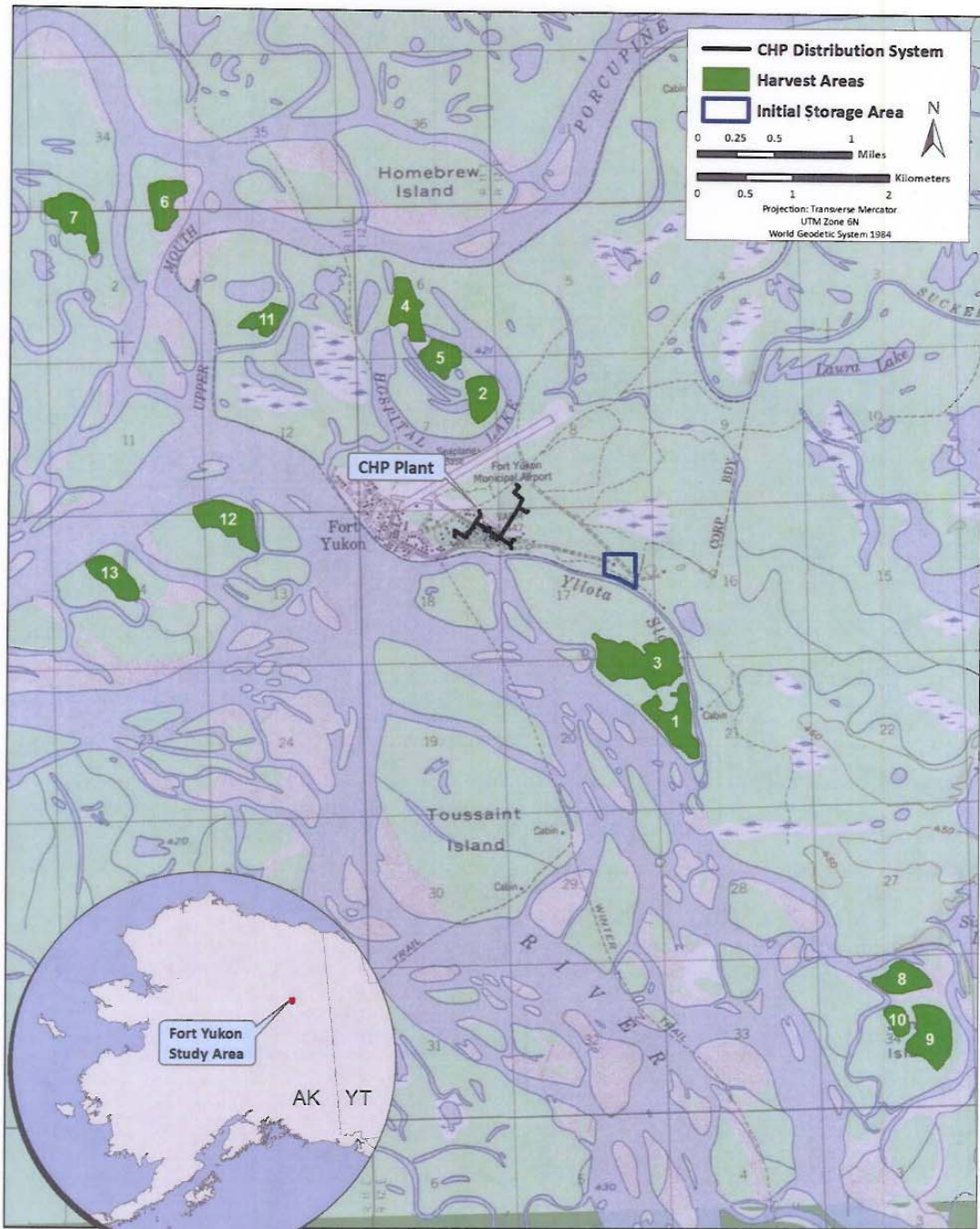


Figure 2 - Project Location, Harvest and Storage Areas

*The following letter was sent to Nancy James, First Chief, Gwichyaa Zhee Gwich'in Tribal Government; Randy Mayo, Chairman, Council of Athabascan Governments, and Laurie Thomas, President, Gwitchyaa Zhee Corporation and Subsidiaries.*



## Department of Energy

Golden Field Office  
1617 Cole Boulevard  
Golden, Colorado 80401-3393

November 7, 2012

Nancy James, First Chief  
Gwichyaa Zhee Gwich'in Tribal Government  
P.O. Box 126  
Fort Yukon, AK 99740

**SUBJECT: INITIATION OF THE SECTION 106 CONSULTATION PROCESS FOR THE  
FORT YUKON COMBINED BIOMASS HEATING SYSTEM PROJECT**

Dear Ms. James:

The U.S. Department of Energy (DOE), U.S. Department of Agriculture Rural Utility Services, and the Denali Commission are considering authorizing the expenditure of Federal funding to implement a Combined Biomass Heating System in Fort Yukon, Alaska, and will be developing an Environmental Assessment for the project in accordance with the National Environmental Policy Act. As described in more detail in an attachment to this letter, the project includes installation of a combined heat and power facility and heat and energy distribution systems in the community of Fort Yukon. The project also includes harvesting of timber from local forested lands surrounding Fort Yukon that are owned by the Gwitchyaa Zhee Corporation.

Installation of the Combined Biomass Heating System would include the purchase of diesel generators and a high efficiency boiler, the installation of a new diesel power plant with heat recovery and the high efficiency boiler fired by wood chips, a wood chip storage area, harvesting equipment, a shop to protect and work on equipment and a district heating loop to distribute heat to local users. The proposed Biomass Heating System would replace the existing power house located in Fort Yukon, and offset about 80 percent of the current utility and community use of fuel oil. Operation of the proposed Biomass Heating System would help stabilize volatile fuel prices and provide economic development in Fort Yukon through the development of a local wood products industry.

To operate the wood-fired boiler, approximately 2,000 green tons of biomass fiber would be harvested annually from surrounding private lands owned by the Gwitchyaa Zhee Corporation. The Council of Athabascan Tribal Governments Natural Resources Department has prepared an extensive GIS mapping database of known culturally significant and historical subsistence use areas. The Gwichyaa Zhee Gwich'in Tribal Government Lands Committee, consisting of Tribal, Corporation, and community members, has individually selected the harvest locations to avoid areas of cultural use. All stands to be harvested will be examined prior to harvest to verify no unmapped historical sites are apparent. Newly discovered sites will be avoided and reported to the Tribal Government Lands Committee and to the Alaska Historic Preservation Officer. No digging or ground disturbance will occur near any historic site.



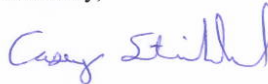


The Area of Potential Effect (APE) for this proposed project includes the location of the power plant and distribution system, plus the harvest and storage areas shown in Figure 2 of the attachment. The Alaska Historic Resources Survey was reviewed in November–December 2011 for the presence of historic properties in the APE. The Northern Land Use Research report on Fort Yukon was also reviewed for the presence of historic properties in the APE. No historic properties were identified in the APE.

Per the regulations of the Advisory Council on Historic Preservation at 36 CFR Sections 800.2(c)(5) and 800.4(a)(3), DOE, Rural Utility Services, and the Denali Commission are inviting your tribe to participate in the consultation process specified by the National Historic Preservation Act. Specifically, I am requesting information you may have on properties of traditional religious and cultural significance within the vicinity of the proposed project and any comments or concerns you have on the potential for this proposed project to affect those properties. This information is being requested to aid in the preparation of the Environmental Assessment and to comply with the National Historic Preservation Act. If you have any such information, require additional information, or have any questions or comments about that project, please contact me via e-mail to me at [casey.strickland@go.doe.gov](mailto:casey.strickland@go.doe.gov) or contact me by phone at 720-356-1575.

Please provide your response to this inquiry within 30 days of the receipt of this letter to assist us in moving the process forward. If a reply is not received within 30 days, then DOE will assume that you have no issues, questions or concerns related to the proposed project.

Sincerely,



Casey Strickland  
NEPA Document Manager  
U.S. Department of Energy  
Golden Field Office  
1617 Cole Boulevard  
Golden, Colorado 80401  
Phone: 720-356-1575  
Fax: 720-356-1350  
[casey.strickland@go.doe.gov](mailto:casey.strickland@go.doe.gov)

Enclosure: Fort Yukon Combined Biomass Heating System

**Attachment**  
**Fort Yukon Combined Biomass Heating System**

The U.S. Department of Energy, U.S. Department of Agriculture Rural Utility Services (RUS), and the Denali Commission are considering authorizing the expenditure of Federal funding to implement a Combined Biomass Heating System in Fort Yukon Alaska.

The funding would be used for the purchase of diesel generators and a high efficiency boiler, the installation of a new Combined Heat and Power (CHP) plant containing a new diesel power plant with heat recovery and a high-efficiency boiler fired by wood chips, a wood chip storage area, harvesting equipment, a shop to protect and work on equipment, and a district heating loop to distribute heat to local users. The proposed Combined Biomass Heating System would replace the existing inefficient power plant in Fort Yukon, and offset about 80 percent of the fuel oil currently used by commercial end-users. To support operation of the wood-fired boiler, approximately 2,000 green tons of woody biomass would be harvested from surrounding private lands owned by the Gwitchyaa Zhee Corporation (GZC) each year. Operation of the proposed Combined Biomass Heating System would help stabilize volatile fuel prices and provide economic development in Fort Yukon through the development of a local wood products industry.

**Power Plant**

The diesel power plant and wood boiler facilities would be located in Fort Yukon (Figure 1) and would be housed in a new pre-engineered metal building. Because the power plant would be located within a 100-year floodplain, the building and foundation would be elevated on an earthen pad to mitigate flood issues and to comply with federal codes.

The new power plant would contain electronically-controlled, fuel-efficient diesel generators with a total installed capacity of between 1,900 and 2,500 kilowatts. Two of the existing electronically controlled generators currently used in the Gwitchyaa Zhee Utility Company (GZU) power plant would be moved to the new facility and re-used, and two new electronically controlled fuel-efficient generators would be purchased to replace existing antiquated and inefficient equipment. New switchgear would provide automatic paralleling and load control of the four generating units to maximize generation reliability and fuel efficiency. Critical grade silencers and sound insulating dampers would attenuate noise from the plant. The cooling system would be equipped with new radiators and efficient variable-speed motor controls. The plant would be provided with a new fire suppression system, and new engine coolant, fuel, and lube oil piping. A new double-wall fuel tank would be located adjacent to the power plant. The double-wall tank would be truck filled, and equipped with redundant overfill protection devices. The existing community above-grade electric distribution system would be upgraded to tie into the new power plant. A wood-chip-fired boiler rated at 3.2 million British Thermal Units would augment the heat recovery system from the diesel generators and provide heat for the district heating system. The wood boiler would be equipped with chip storage and an automatic chip feed system. Areas for wood processing and feeding, chip storage, and wood storage would be located contiguous to the plant site.

### **District Heating System**

The district heating system would provide heat to public and community buildings in the downtown community core and adjacent areas of Fort Yukon (Figure 1). Below-grade, pre-insulated, arctic piping would be routed from the CHP facility to those buildings. The buildings would be tied into the district heating system via a combination of heat exchangers, fan coil units, and unit heaters. The district heating system would offset as much as 145,000 gallons of diesel heating fuel annually. Work associated with the CHP plant and its distribution system would be performed within existing road and utility rights-of-ways, to the maximum extent possible.

### **Biomass Harvesting**

To operate the wood-fired boiler, approximately 1,600 – 2,000 green tons per year of woody biomass would be harvested from 80 to 100 acres of surrounding private lands owned by the Gwitchyaa Zhee Corporation (GZC) (Figure 2). For the first five years all harvesting would take place within a five-mile radius of Fort Yukon in order to develop the forest management capacity as an adaptive management program. Ultimately, a forty-year biomass rotation is expected and harvesting would occur within a 10-mile radius around the village.

Regeneration efforts would focus on developing faster growing hardwood stands and creating a series of stands of different ages, structural diversity, and species composition across the landscape. A total harvest area of approximately 4,500 acres would occur during the forty-year rotation period. This represents approximately 2 percent of the total acreage of land owned by GZC in the area. After forty years, sufficient woody biomass would be regenerated in the original stands to permit a second harvest.

The harvest and transportation of woody biomass would occur mostly in the winter after freeze-up of the ground and area rivers have occurred, and before break-up in the spring. Designated wetland areas within a stand would not be harvested and any other activities occurring in wetlands would take place during winter when the ground is frozen, to limit soil impact. Some harvest would occur during the summer in select non-wetland areas that are dry enough to support harvest with no adverse impacts to soils or wetlands. A harvest plan has been approved by the local Lands Committee and would be updated annually. All harvesting activities would be in compliance with the Alaska Forest Resources Practices Act with special attention paid to minimizing impacts to riparian areas and wetlands. A total of 4 – 5 harvest and forest management jobs would be created as a direct result of this project.



THE STATE  
of **ALASKA**  
GOVERNOR SEAN PARNELL

**Department of Natural Resources**

DIVISION OF PARKS AND OUTDOOR RECREATION  
Office of History and Archaeology

550 West 7<sup>th</sup> Avenue, Suite 1310  
Anchorage, Alaska 99501-3565  
Web: <http://dnr.alaska.gov/parks/oha>  
Phone: 907.269.8721  
Fax: 907.269.8908

December 7, 2012

File No.: 3130-1R DOE / 3130-2R AEA

Casey Strickland  
NEPA Document Manager  
U.S. Department of Energy  
Golden Field Office  
1617 Cole Boulevard  
Golden, Colorado 80401

Subject: Fort Yukon Combined Biomass Heating System Project

Dear Mr. Strickland:

The Alaska State Historic Preservation Office (AK SHPO) received your correspondence (dated November 7, 2012) on November 13, 2012.

Following our review of the documentation provided, we are unable to concur that a finding of 'no historic properties affected' is appropriate for the proposed project, including the harvesting of timber, as requested within your cover letter. At this time, we do not believe that we have enough information to provide concurrence.

We believe that the areas proposed for timber harvest and any other potentially ground disturbing activity area associated with the subject undertaking should be evaluated by a qualified archaeologist or cultural resource specialist. At a minimum, each area should be professionally assessed for its potential to contain archaeological or historic resources.

There are a number of known cultural resources in the vicinity of Fort Yukon and according to your letter, areas of cultural and historical significance in the vicinity of the proposed activities were identified by the Council of Athabascan Tribal Governments Natural Resources Department and the Gwichyaa Zhee Gwich'in Tribal Government Lands Committee. However, no additional details were provided in your documentation regarding these areas. Additionally, your documentation suggests that each proposed harvest area will be examined prior to harvest to identify any unmapped sites. We recommend that if this investigation is already planned, it should be conducted by a qualified archaeologist or cultural resource specialist and that the results of the investigation be provided to our office prior to initiating work. Should any cultural resources be identified during this investigation, they should be evaluated for eligibility to the National Register of Historic Places in accordance with standard practice. Finally, the maps provided show both "wood storage areas" and "initial storage area," but no additional information

is provided to describe the proposed activities in these areas or their potential for effects. Our records indicate that the "initial storage area" polygon is located in an area of several previously-recorded cultural resources.

Please note that as stipulated in 36 CFR 800.3, other consulting parties such as the local government and Tribes are required to be notified of the undertaking. Additional information provided by the local government, Tribes or other consulting parties may cause our office to re-evaluate our comments and recommendations. Please note that our comment letter does not end the 30-day review period provided to other consulting parties.

Thank you for the opportunity to comment. We look forward to continued consultation on the subject project. Please contact Shina duVall at 269-8720 or [shina.duvall@alaska.gov](mailto:shina.duvall@alaska.gov) if you have any questions or if we can be of further assistance.

Sincerely,



Judith E. Bittner  
State Historic Preservation Officer

JEB:sad

**Alaska Energy and Engineering, Inc.**  
Mailing Address - P.O. Box 111405  
Anchorage, AK 99511-1405  
(907) 349-0100, 349-8001 fax

RECEIVED  
FEB 08 2012

February 1, 2012

OHA

Judith E. Bittner, State Historic Preservation Officer  
Alaska Office of History and Archaeology  
Alaska Department of Natural Resources  
550 West 7<sup>th</sup> Avenue, Suite 1310  
Anchorage, AK 99501-3565

No Historic Properties Affected  
Alaska State Historic Preservation Officer  
Date: 2/14/2012  
File No.: 3130-2R AEA SUR

Subject: Fort Yukon RPSU Combined Heat & Power Project:  
Finding of No Historic Properties Affected

Dear Ms Bittner:

Alaska Energy and Engineering, Inc., under the direction of the Alaska Energy Authority (AEA) Rural Energy Group is working with the Gwichyaa Zhee Corporation to upgrade the community's energy infrastructure in Fort Yukon, including replacing the existing power plant and providing a new district heating system. The project is located within Sections 7, 8, 17 and 18, T20N, R12E, Fairbanks Meridian; USGS Quad map Fort Yukon C-3. Attached are Figures s 1 & 2, and Photo 1. These include a community site plan with location map, project area site plan with Area of Potential Effect (APE), and an aerial photo. Pursuant to 36 CFR 800.4(d)(1), implementing regulations of Section 106 of the National Historic Preservation Act, the AEA requests concurrence that no historic properties would be affected by the proposed project.

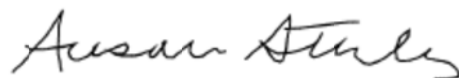
The Fort Yukon RPSU CHP project will provide reliable and code compliant power generation and district heating to benefit the entire community. The project's APE includes the footprint for the new power plant and biomass boiler (CHP Facility) gravel pad, the wood storage lots, and the arctic piping alignment for the district heating system. The CHP Facility and Wood Storage Areas are located along a sparsely wooded area adjacent to Airport Road. The district heating arctic piping system will be installed below grade within previously disturbed City road rights-of-ways and easements. Installation of the heating system will not alter the appearance of the community buildings and all excavated areas around existing buildings will be returned to pre-construction elevations.

The Alaska Historic Resources Survey (AHRS) was reviewed on November 9 and December 15, 2011. The Northern Land Use Research (NLUR) December 2003 report on Fort Yukon was also reviewed for the presence of historic properties in the APE. No historic sites were identified within the APE.

Should the proposed activities reveal cultural or paleontological resources, work that would disturb cultural resources will stop immediately and the State Historic Preservation Office (907-269-8720) and the Gwichyaa Zhee Gwich'in Tribal Government will be contacted so that consultation per section 106 of the National Historic Preservation Act may proceed.

Sincerely,

**Alaska Energy and Engineering, Inc.**



Alison Sterley  
Cultural Resource Specialist

1.30.2013

3130-1R DOE



**Department of Energy**  
Golden Field Office  
1617 Cole Boulevard  
Golden, Colorado 80401-3393

January 17, 2013

RECEIVED

JAN 22 2013

OHA

Judith E. Bittner, State Historic Preservation Officer  
Alaska Office of History and Archaeology  
Alaska Department of Natural Resources  
550 West 7<sup>th</sup> Avenue, Suite 1310  
Anchorage, AK 99501-3565

SUBJECT: FORT YUKON CHP PROJECT – FILE NO. 3130-1R DOE/3130-2R AEA

Dear Ms Bittner:

The U.S. Department of Energy (DOE) received your correspondence dated December 7, 2012 requesting additional information regarding the proposed project. The following additional information is provided regarding the initial storage area and the biomass harvest areas. Figure 1 shows the project location for the initial storage and harvest areas.

In the vicinity of the initial storage area is FYU46 White Alice Communication System (WAC) which includes sites FYU57-80. Figure 2 shows an overview of the vicinity, with the initial storage area in the left central portion of the figure. The project proposes to use a building, known locally as "the Quonset hut" to store biomass and biomass harvest equipment in the initial storage area. This building is located within the parcel designated for the initial storage area and is designated site FYU66, built in 1956, and currently used for community recyclables. Figure 3 shows the initial storage area parcel within which FYU66 is located. This site is associated with the Fort Yukon Long Range Radar System (LRRS) and was determined eligible for the National Register of Historic Places (NRHP) as part of the Aircraft Control and Warning (AC&W) System and in an MOA signed by the Air Force, SHPO and ACHP, and approved January 1998 in conjunction with the Clean Sweep program. The preservation strategy was to document the facilities before demolition. FYU66 was documented in accordance with the MOA requirements, along with many other sites, some now demolished. Subsequently, as part of the decommissioning of the LRRS, the building and the initial storage area were deeded to the Gwitchyaa Zhee Corporation in 2005.

The area designated as the initial storage area has been previously disturbed. Buildings and installations have been removed and contaminated sites have been cleaned up. In order not to disturb the ground further, vegetation would be cleared by cutting at the surface level, thus leaving the root and soil structures undisturbed. Biomass would be placed on the ground surface for storage.

No Historic Properties Adversely Affected  
Alaska State Historic Preservation Officer  
Date: 1.30.2013  
File No. 3130-1R DOE

Because FYU66 has been preserved through documentation in accordance with the MOA requirements, DOE has determined that use and/or alteration of the facility would not have an adverse effect.

The areas proposed for the biomass harvest do not contain any known Alaska Heritage Resource Survey sites and are located on islands or other areas adjacent to channels of the braided river system surrounding Fort Yukon and are subject to frequent flooding and the associated addition and removal of surface soils. Therefore, it is unlikely that there are buried or above-ground cultural resources or other historic properties at the harvest sites. This project includes a vegetative buffer zone of 100-feet along waterways in accordance with the Alaska Forest Practices Act that will serve to protect cultural resources that may be present yet not immediately evident. The harvest practices proposed for this project are designed to have low impacts on the environment and economic efficiencies for the community. Harvest would primarily be in the winter months on frozen ground, using small-scale equipment for harvest and transport. Ice roads, but no permanent, timber harvest roads would be constructed.

The Gwichyaa Zhee Gwich'in Tribal Government Lands Committee, consisting of Tribal, Corporation, and community members, has individually selected the harvest locations to avoid areas of cultural use. If previously undiscovered sites are found during timber surveys to be conducted prior to harvesting, those sites will be avoided and reported to the Alaska State Historic Preservation Office and Tribal Government Lands Committee. No digging or ground disturbance will occur near any historic site.

In compliance with 36 CFR Part 800.4(d)(1), the DOE asks the Alaska State Historic Preservation Officer for concurrence in a finding of no adverse effect to historic properties.

Sincerely,



Casey Strickland  
NEPA Document Manager  
U.S. Department of Energy  
Golden Field Office  
1617 Cole Boulevard  
Golden, Colorado 80401

Enclosures: Figures 1-3



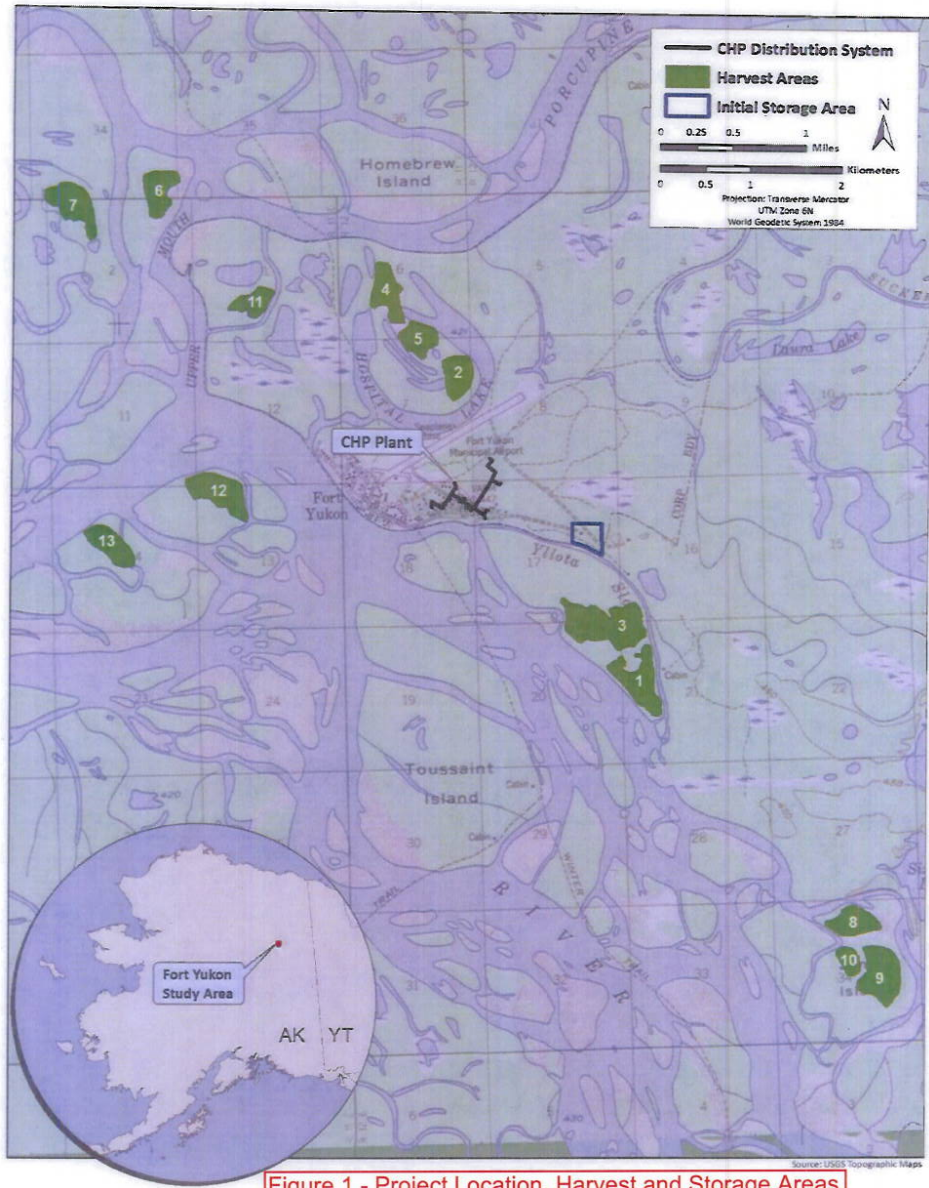


Figure 1 - Project Location, Harvest and Storage Areas



Figure 2

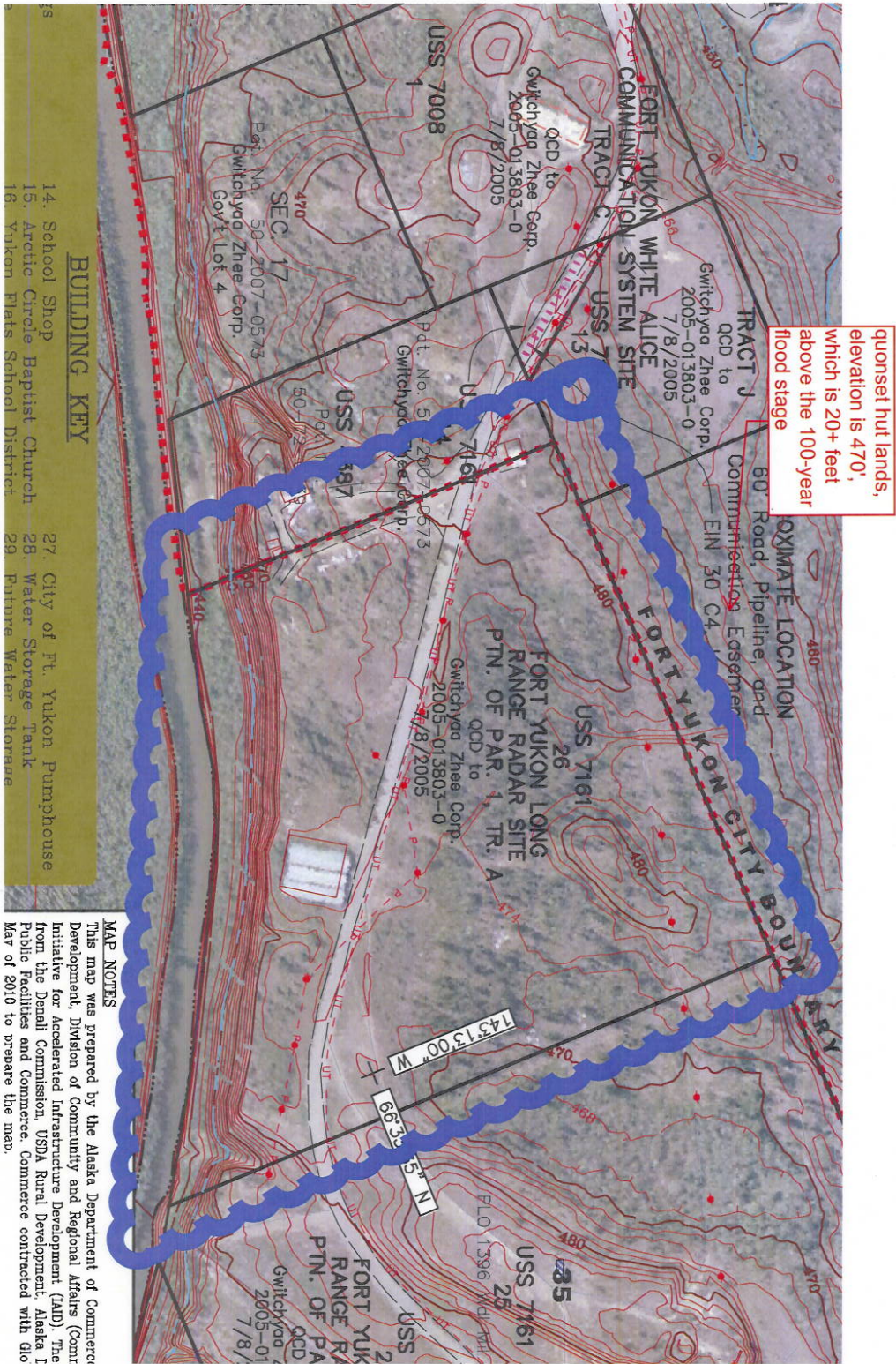


Figure 3

**From:** Denise\_Walther@fws.gov  
**Sent:** Thursday, March 01, 2012 11:49 AM  
**To:** Alison Sterley  
**Cc:** Alan Fetters; Steve Stassel;  
Neesha\_Stellrecht@fws.gov  
**Subject:** Concurrence for Fort Yukon RPSU CHP Project  
Section 7  
**Attachments:** FYU-USFWS-concur-req.PDF

Hi Alison,

Thank you for your email requesting information on endangered and threatened species and critical habitats pursuant to Section 7 of the Endangered Species Act of 1973, as amended (Act). Based on your letter (attached below), we understand Alaska Energy and Engineering, Inc. is working under the direction of the Alaska Energy Authority and the Denali Commission to upgrade energy infrastructure in Fort Yukon, AK.

The Service concurs with your determination of No Listed Species Present/No Effect for the project. Preparation of a Biological Assessment or further consultation under Section 7 of the Act regarding this project is not necessary. This letter applies only to endangered or threatened species under our jurisdiction. It does not preclude the need to comply with other environmental legislation or regulations such as the Clean Water Act. Thank you for your cooperation in meeting our joint responsibilities under the Act. If you need further assistance, please contact me at (907) 456-0277.

Best regards,  
Denise

Denise A. Walther, Ph.D.  
Fish & Wildlife Biologist  
Fairbanks Fish and Wildlife Field Office  
U.S. Fish and Wildlife Service  
101 12th Ave., Room 110  
Fairbanks, AK 99701  
907-456-0277  
907-456-0208 fax  
[denise\\_walther@fws.gov](mailto:denise_walther@fws.gov)

--- Forwarded by Denise Walther/R7/FWS/DOI on 03/01/2012 11:11 AM ---

--- Forwarded by Ted Swam/R7/FWS/DOI on 02/28/2012 02:52 PM ---

**Alison Sterley** <[aeetech@ak.net](mailto:aeetech@ak.net)>

To [Ted\\_Swam@fws.gov](mailto:Ted_Swam@fws.gov)

CC Alan Fetters <[AFetters@akdaa.org](mailto:AFetters@akdaa.org)>, Steve Stassel <[sstassel@ak.net](mailto:ssstassel@ak.net)>

02/28/2012 01:44 PM

Subject: Fort Yukon RPSU CHP Project: Section 7



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Fairbanks Fish and Wildlife Field Office  
101 12<sup>th</sup> Avenue, Room 110  
Fairbanks, Alaska 99701  
March 26, 2013



Casey Strickland  
Department of Energy  
Golden Field Office  
1617 Cole Blvd.  
Golden, CO 80401

RE: EA-1922: Combined Power and Biomass Heating  
System, Fort Yukon, Alaska

Dear Mr. Strickland:

The U.S. Fish and Wildlife Service (Service) has reviewed the Draft Environmental Assessment (EA) for a Combined Power and Biomass Heating System in Fort Yukon, Alaska.

**Threatened and Endangered Species:** No listed or candidate species or critical habitat occur within Fort Yukon or its vicinity. The statement on Page 3-14 regarding Kittlitz's murrelet is incorrect, that species does not potentially occur in the Fort Yukon area.

**Migratory Birds, Including Eagles:** As currently described, the tree-cutting plan does not provide sufficient protection for migratory birds during the breeding season. Destruction of active bird nests, eggs, or nestlings that can result from spring and summer tree-cutting would violate the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712). In Alaska, all native birds except grouse and ptarmigan (protected by the State of Alaska) are protected under the MBTA.

Please refer to the enclosure entitled, *Land Clearing Timing Guidance for Alaska: Plan Ahead to Protect Nesting Birds* (U.S. Fish and Wildlife Service, 2009) for recommendations to help you comply with the MBTA during vegetation clearing operations in Alaska. Based on those guidelines, the Service recommends that all tree-cutting occur before or after the bird nesting season in Interior Alaska (before May 1 or after July 15). Note that clearing of downed timber could occur during the spring and summer, if trees were previously cut outside of the nesting season.

The project is located within the spring and summer breeding range of bald and golden eagles in Alaska. The forested riverine habitat near Fort Yukon is suitable nesting and/or foraging habitat, particularly for bald eagles. In addition to protection under the MBTA, eagles also have protection under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c). The Eagle Act prohibits disturbance of eagles and prohibits the destruction of an eagle nest, including unoccupied or alternate nests. The Service has National Bald Eagle Management Guidelines

(U.S. Fish and Wildlife Service, 2007) that are intended to advise planners on how to avoid disturbing bald eagles and their nests during a wide variety of activities, including Timber Operations. The Service typically recommends aerial surveys to determine if eagle nests are present in or near the project sites. If so, activities should be planned according to the National Bald Eagle Management Guidelines to avoid and minimize negative impacts to eagles.

The Service also has an Eagle Permit Program that can help you determine if the proposed activities may risk the take of eagles. In regards to eagles, you may wish to discuss the project specifically with Jordan Muir, Alaska Region Eagle Permit Program Biologist, at 907-786-3503 or [Jordan\\_Muir@fws.gov](mailto:Jordan_Muir@fws.gov).

The Service recommends the Final EA indicate what measures will be taken to protect nesting migratory birds, which will be present throughout the project area, and eagles and eagle nests, which may be present in the project area.

We appreciate this opportunity for comment. If you would like to discuss any of these topics further, please contact me at 907-456-0324 or [Jewel\\_Bennett@fws.gov](mailto:Jewel_Bennett@fws.gov) or Charleen Veach at 907-456-0276 or [Charleen\\_Veach@fws.gov](mailto:Charleen_Veach@fws.gov).

Sincerely,



Jewel Bennett  
Branch Chief  
Conservation Planning Assistance

cmv/cmv

**Citations:**

U.S. Fish and Wildlife Service. 2007. National Bald Eagle Management Guidelines. 23 pp.  
[http://alaska.fws.gov/eaglepermit/pdf/national\\_guidelines.pdf](http://alaska.fws.gov/eaglepermit/pdf/national_guidelines.pdf)

U.S. Fish and Wildlife Service. 2009. Land Clearing Timing Guidance for Alaska: Plan Ahead to Protect Nesting Birds. 2 pp.  
[http://alaska.fws.gov/fisheries/fieldoffice/anchorage/pdf/vegetation\\_clearing.pdf](http://alaska.fws.gov/fisheries/fieldoffice/anchorage/pdf/vegetation_clearing.pdf)

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U.S. Fish & Wildlife Service

## Land Clearing Timing Guidance for Alaska

### *Plan Ahead to Protect Nesting Birds*

#### **General Information:**

Under the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703) (see <http://ipl.unm.edu/cwl/fedbook/mbta.html>), it is illegal for anyone to "take" migratory birds, their eggs, feathers or nests. "Take" includes by any means or in any manner, any attempt at hunting, pursuing, wounding, killing, possessing or transporting any migratory bird, nest, egg, or part thereof. Take and possession under MBTA can be authorized through regulations, such as hunting regulations, or permits, e.g., salvage, research, depredation, or falconry. The MBTA does not distinguish between intentional and unintentional take. In Alaska, all native birds except grouse and ptarmigan (protected by the State of Alaska) are protected under the MBTA.

Destruction of active bird nests, eggs, or nestlings that can result from spring and summer vegetation clearing, grubbing, and other site preparation and construction activities would violate the MBTA. The following timing guidelines are not regulations, but are intended as recommendations to help you comply with the MBTA. Some species and their nests have additional protections under other federal laws, including those listed under the Threatened and Endangered Species Act (ESA), and bald and golden eagles (protected under the Bald and Golden Eagle Protection Act or BGEPA). Please contact the U.S. Fish and Wildlife Service to ensure compliance with ESA and BGEPA if these species may be present in your project area.

#### **Directions:**

1. Apply timing window guidelines to your project planning, unless project-specific review results in unique guidelines from the USFWS for your project.
2. If you encounter an active nest *at any time*, including before or after the local timing window, leave it in place and protected until young hatch and depart. "Active" is indicated by intact eggs, live chicks, or presence of adult on nest. Timing guidelines should considerably reduce the risk of inadvertent nest destruction, but final compliance with the law is your responsibility: do not destroy eggs, chicks, or adults of wild bird species.
3. If you have any questions regarding the MBTA and the timing guidelines, including projects that may occur in "boundary areas" between regions described on the matrix, contact your local Fish and Wildlife Field Office for assistance:

Anchorage (907) 271-2888  
Fairbanks (907) 456-0203

Kenai (907) 262-9863  
Juneau (907) 780-1160



**Recommended Time Periods to Avoid Vegetation Clearing**

HABITAT TYPE →	Forest or woodland <sup>1</sup> (i.e., trees present)	Shrub or Open (i.e., shrub cover or marsh, pond, tundra, gravel, or other treeless/shrubless ground habitat)	Seabird colonies (including cliff and burrow colonies)	Raptor and raven cliffs
REGION ↓				
Southeast	April 15 – July 15	May 1 – July 15 <sup>2</sup>	May 1 – September 15 <sup>3</sup>	April 10 – August 10
Kodiak Archipelago			April 15 – September 7 <sup>3</sup>	
Southcentral (Lake Ilhamna to Copper River Delta; north to Talkeetna)	May 1 – July 15 <sup>2</sup>			
Bristol Bay/AK Peninsula (north to Lake Ilhamna)	April 10 – July 15	May 1 – July 15 <sup>2,4</sup>	May 10 – September 15	
Interior (north of Talkeetna to south slope Brooks Range; west to treeline)	May 1 – July 15 <sup>2</sup>		May 1 – July 20 <sup>3</sup>	April 15 – August 1
Aleutian Islands		April 25 – July 15	May 1 – September 15 <sup>3</sup>	April 1 – August 1
Yukon-Kuskokwim Delta (east to treeline)		May 5 – July 25 <sup>2,4</sup>	May 20 – September 15	April 15 – August 15
Seward Peninsula		May 20 – July 20 <sup>4</sup>		
Northern (includes northern foothills of Brooks Range)		June 1 – July 31 <sup>4</sup>		
Pribilof and Bering Sea Islands		June 1 – July 15	May 25 – September 1	

USFWS July 2009

<sup>1</sup> Owl species may begin to nest two or more months earlier than other forest birds, and are fairly common breeders in forested areas of Alaska. You may wish to survey for nesting owls (or other early spring tree-cavity nesters) prior to tree-cutting. It is your responsibility to protect active nests from destruction.

<sup>2</sup> Canada geese and swan habitat: begin April 20

<sup>3</sup> Storm petrel burrow habitat: April 1 – October 15

<sup>4</sup> Black scoter habitat: through August 10

<sup>5</sup> Seabird colonies in Interior refer to terns and gulls





THE STATE  
of **ALASKA**  
GOVERNOR SEAN PARNELL

**Department of  
Fish and Game**

DIVISION OF HABITAT  
Interior Region Office

1300 College Road  
Fairbanks, Alaska 99701-1551  
Main: 907.459.7289  
Fax: 907.459.7303

November 28, 2012

Mr. Casey Strickland  
NEPA Document Manager  
U.S. Department of Energy  
Golden Field Office  
1617 Cole Boulevard  
Golden, CO 80401

Dear Mr. Strickland:

RE: EA Scoping Comments – Ft. Yukon combined Biomass Heating System (DOE/EA-1922)

The Alaska Department of Fish and Game (ADF&G), Division of Habitat has reviewed the U.S. Department of Energy's (DOE's) November 7, 2012 Notice of Scoping for the Fort Yukon Combined Biomass Heating System. The DOE and cooperating agencies have requested comments and information on issues to be addressed in an environmental assessment (EA) being prepared for this project.

ADF&G has management authority for the fish, game, and aquatic plant resources of Alaska. In addition, ADF&G Habitat is responsible for commenting on potential effects of, and recommending potential mitigation measures relevant to, fish and wildlife and their habitats under the Alaska Forest Resources and Practices Act (FRPA). During this review, we consulted with staff from the ADF&G divisions of Commercial Fisheries, Sport Fisheries, Subsistence, and Wildlife Conservation, and have incorporated their responses in our comments.

The proposed Combined Biomass Heating System would include a 3.2 million BTU boiler fired by wood chips. The boiler feedstock of approximately 1,600-2,000 green tons per year would be harvested from 80-100 acres of surrounding private lands owned by Gwitchyaa Zhee Corporation. The current harvest plan calls for harvest from approximately 4,500 acres within a 10-mile radius of Fort Yukon, with a 40-year rotation period. A map of 13 initial harvest areas was provided. The following comments are presented to assist in development of the EA.

The Catalog of Waters Important for the Spawning, Rearing, or Migration of Anadromous Fishes (developed under Alaska Statutes (AS) 16.05.871(a)) lists this reach of the Yukon River as important for Chinook, coho, and chum salmon, sheefish, and whitefish, with the portion beside and upstream of Toussaint Island identified as sheefish spawning habitat. The Catalog lists the lower portion of the

Porcupine River as important for Chinook, coho, and chum salmon. Chinook and chum salmon migrate through the mainstem Yukon during July through September on their way to spawning areas upstream, and juvenile Chinook salmon use the side channels and tributary streams on their out migration. The Porcupine River supports adult migrations of Chinook, chum and coho salmon from July through November. A variety of resident fish species also use the water bodies potentially affected by the proposed action, including Arctic grayling, burbot, northern pike, and whitefish.

Any use of machinery within the limits of ordinary high water of fish bearing water bodies will likely require a Fish Habitat (Title 16) Permit from ADF&G. Such uses include winter ice crossings or ice bridges, modification of water body beds or banks, or hauling or floating logs. Contact ADF&G Habitat for a determination of the permit need for specific activities.

FRPA riparian harvest standards for private forest lands in interior Alaska are presented in AS 41.14.116(c). Glacial water bodies in the project area all contain anadromous or high value resident fish, so are Type III-B water bodies. Examples include the Yukon River and associated side channels and sloughs including Yllota Slough. Nonglacial water bodies in the project area that contain anadromous or high value resident fish would be Type III-A water bodies. Examples include the Porcupine River and associated side channels and sloughs, and Hospital Lake. Imagery available to ADF&G at this time does not allow us to determine whether the Upper Mouth and Lower Mouth of the Porcupine River, and associated channels, are Type III-A or Type III-B water bodies. We note that there have been several changes in the channel and island configurations between the USGS topographic map and current imagery, such as to the islands containing harvest areas 12 and 13.

The estimated harvest acreage is based on a conservative estimate of available biomass (20 green tons per acre), while the proposed rotation of 40 years is half of the general rotation for hardwoods typically used by the Alaska Division of Forestry. Because of this short rotation period, the total footprint of 4,500 acres before re-harvest can begin at 40 years may be low, but the scoping document did not provide enough tree species or inventory detail for ADF&G to evaluate and comment.

Although there are not enough harvest details (e.g., clearcut or size limits in selective cut) in the proposal to allow us to provide much input on evaluation of potential effects on wildlife habitat features, we offer the following general guidelines. Winter or dormant season harvest should optimize root resources for vegetative regeneration by hardwoods. Aspen will be relatively rare near the floodplain, but where encountered in harvest units, the entire clone should be cut to maximize sprouting. Where practical, tops and smaller branches should be left on site for nutrient input to the next crop; fine hardwood tops should also be left to allow overwinter browse salvage by hares and moose. Snags greater than 12 inch dbh with cavities should be left standing as rare habitat features.

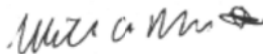
Harvest areas in Fig. 2 appear to be 40-100 acres in size, well within the size of typical wildland fires on upland sites in this physiographic section of interior Alaska (average about 2,000 ac). Larger cut areas with islands of uncut mature trees may be easier to lay out and help retain cavity trees or other desired late-seral features against windthrow after harvest. Larger cuts will also likely increase tree survival by reducing the potential for hare and moose herbivory away from edge cover (increased predation risk). Where feasible, hardwood harvest should be timed during the low phase of the hare abundance cycle to aid regeneration success.

Some bird and small mammal species known to use habitats designated for biomass are considered Species of Greatest Conservation Need (SGCN) within the State's Wildlife Action Plan, which aims to keep species from becoming listed as threatened or endangered. The opportunity to work with the landowner on first developing and then field-testing BMP's is opportune, as the Wildlife Diversity Program is currently considering a project aimed at a pre- and post-treatment inventory of SGCN birds and small mammals at biomass sites. The Olive-sided Flycatcher, for example, is an SGCN landbird that may suffer more greatly under certain timber management practices than others. Any BMP that successfully minimizes impact could have consequences in multiple arenas, as this species is also a BLM Species of Concern, listed as a "Bird of Conservation Concern" in the U.S., "Threatened" in Canada, and "Near Threatened" globally (IUCN Redlist).

There are several traditional and RS 2477 trails in the area, including RST 477 Ft. Yukon-Christian, RST 478 Yukon-Beaver, and RST 1644 Caro-Ft. Yukon. Provided that access to and use of these existing trails is maintained, we do not anticipate any concerns.

Questions about these comments, or requests for additional information, may be directed to Habitat Biologist Jim Durst at 907-459-7254 or emailed to james.durst@alaska.gov.

Sincerely,



William A. Morris, Regional Supervisor  
Division of Habitat  
Alaska Department of Fish and Game

ecc: Bonnie Borba, ADFG CF, Fairbanks  
Al Ott, ADF&G HAB, Fairbanks  
John Burr, ADF&G SF, Fairbanks  
Marla Carter, ADF&G SF, Anchorage  
Caroline Brown, ADF&G SUBS, Fairbanks  
Beth Lenart, ADFG WC, Fairbanks  
Tom Paragi, ADF&G WC, Fairbanks  
Julie Hagelin, ADF&G WC, Fairbanks

WAM/jdd



THE STATE  
of **ALASKA**  
GOVERNOR SEAN PARNELL

**Department of  
Fish and Game**

DIVISION OF HABITAT  
Interior Region Office

1300 College Road  
Fairbanks, Alaska 99701-1551  
Main: 907.459.7209  
Fax: 907.459.7303

March 27, 2013

Mr. Casey Strickland  
U.S. Department of Energy  
Golden Field Office  
1617 Cole Boulevard  
Golden, CO 80401

Dear Mr. Strickland:

RE: Draft EA Comments – Ft. Yukon Combined Power & Biomass Heating System (DOE/EA-1922)

The Alaska Department of Fish and Game (ADF&G), Division of Habitat has reviewed the U.S. Department of Energy's (DOE's) Draft Environmental Assessment (DEA) for a Combined Power and Biomass Heating System, Fort Yukon, Alaska DOE/EA-1922, released February 20, 2013. The DOE and cooperating agencies have invited comments on the DEA's analyses, results, and proposed action.

ADF&G has no significant fish or wildlife resource concerns with the DEA. We believe that a number of the points raised in our project scoping comments dated November 28, 2012, provide helpful additional information useful as this project proceeds.

On page 2-9 of the DEA, lines 32-37 discuss ADF&G Fish Habitat Permits. Note that such permits are required for most activities within the limits of ordinary high water of resident fish bearing water bodies in addition to activities in water bodies used by anadromous fishes. This would include construction of ice bridges or roads, and pumping of water to augment ice thickness to assure safe over-ice travel.

Thank you for the opportunity to provide comments on this DEA. Questions about these comments, or requests for additional information, may be directed to Habitat Biologist Jim Durst at 907-459-7254 or emailed to [james.durst@alaska.gov](mailto:james.durst@alaska.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read "William A. Morris".

William A. Morris, Regional Supervisor  
Division of Habitat  
Alaska Department of Fish and Game

ecc: Bonnie Borba, ADFG CF, Fairbanks  
Al Ott, ADF&G HAB, Fairbanks  
John Burr, ADF&G SF, Fairbanks  
Marla Carter, ADF&G SF, Anchorage  
Caroline Brown, ADF&G SUBS, Fairbanks  
Beth Lenart, ADFG WC, Fairbanks  
Tom Paragi, ADF&G WC, Fairbanks  
Julie Hagelin, ADF&G WC, Fairbanks

WAM/jdd