ENVIRONMENTAL REPORT

FOR

CATEGORICALLY EXCLUDED PROJECTS

CITY OF PORT HEIDEN
PORT HEIDEN RURAL POWER SYSTEM UPGRADE

PREPARED FOR:

DENALI COMMISSION

PREPARED BY:

Gray Stassel Engineering, Inc.
Mailing Address – P.O. Box 111405
Anchorage, Alaska 99511-1405
(907) 349-0100, 349-8001 fax

June 3, 2019

PORT HEIDEN RURAL POWER SYSTEM UPGRADE PROJECT

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CORRESPONDENCE

Gray Stassel Engineering, Inc.

P.O. Box 111405
Anchorage, Alaska 99511-1405
Ph. (907) 349-0100, Fax (907) 349-8001

June 14, 2019

Sent via email to: twolf@denali.gov

Mr. Tom Wolf
Program Manager
Denali Commission
510 L Street, Suite 410
Anchorage, AK 99501

Subject: **Port Heiden Rural Power System Upgrade Project - CATEX**

Dear Mr. Wolf:

Please find enclosed the CATEX Checklist and Environmental Review Record for the Port Heiden Rural Power System Upgrade Project for your review and signature.

The Alaska Energy Authority (AEA), in partnership with the Denali Commission (DC), is upgrading the community of Port Heiden's energy infrastructure including diesel power plant replacement, heat recovery system and electrical distribution upgrades. Participants in the project include the City of Port Heiden and the Lake and Peninsula School District.

The attached documentation supports the Project is categorically excluded pursuant to 45 CFR Part 900, Appendix A, Paragraphs B3 & B6: "Construction of New Infrastructure" and "Upgrading Electric Powerlines".

Please review and call me with any questions at (907) 349-0100.

Sincerely

Gray Stassel Engineering, Inc.

Steven J. Stassel, P.E.
President

Attachments: as noted

cc: Alan Fetters, AEA

CATEX CHECKLIST

CATEX CHECKLIST

CHECKLIST OF EXTRAORDINARY CIRCUMSTANCES & SENSITIVE RESOURCES IN SUPPORT OF A CATEGORICAL EXCLUSION (CATEX) DETERMINATION FOR A DENALI COMMISSION PROJECT

Program Partner Name	**Project Name**	
Alaska Energy Authority (AEA)	Port Heiden RPSU	
Location	**Project #**	**Subproject #**
Port Heiden, Alaska	350320	

Identify Categorical Exclusion	
The proposed project is identified in the Denali Commission list of categorical exclusions in 45 CFR Appendix A to Part 900, paragraph(s) B3 & B6	**B3**. Construction or lease of new infrastructure including, but not limited to, health care facilities, community buildings, housing, and bulk fuel storage and power generation plants, where such lease or construction: **(a)** Is at the site of existing infrastructure and capacity is not substantially increased; or **(b)** Is for infrastructure of less than 12,000 square feet of useable space when less than two aces of surface land area are involved at a new site.

Project Description (2-3 sentences maximum)

The Port Heiden RPSU project will upgrade the community's energy infrastructure including diesel power plant replacement, heat recovery system and electrical distribution upgrades. Implementation of all phases of electrical distribution upgrades is subject to construction funding availability.

Instructions

The information you provide below will assist the Denali Commission in making its determination as to whether a Categorical Exclusion (CATEX) is appropriate or further environmental analysis is required for the proposed project. Please place a checkmark in the blank next to the numbered items indicating your response on that issue. A checkmark in the "Yes" block does not automatically preclude the development of the proposed project. It simply means further assessment is needed. Should you have any remarks that may indicate the need to prepare an Environmental Analysis (EA) or an Environmental Impact Statement (EIS), attach a brief explanation of the circumstances for further evaluation. Adverse affects to environmentally sensitive resources must be resolved through another environmental process, e.g., coordination or consultation under the Coastal Zone Management Act or National Historic Preservation Act, before being categorically excluded. Attachments are allowed and encouraged.

Extraordinary Circumstances	Determination		Basis for determination
	Yes	No	
1. Public Health, Safety or Environment Will the proposed project have a reasonably likelihood of significant impacts on public health, public safety, or the environment?	☐	☒	Replacing existing facilities and installing alternative energy technology (heat recovery system) will provide reliable, long-term, code compliant electrical generation for community and school facilities, and for community residents. Spill and fire safety will be improved.
2. Controversy on Environmental Grounds Will the proposed project have effects on the environment that are likely to be highly controversial or involve unresolved conflicts concerning alternative uses of available resources?	☐	☒	The project is not controversial. It complies with all applicable laws and requirements and will have regulatory approvals.
3. Uncertain, Unique or Unknown Risks Will the proposed project have possible effects on the human environment that are highly uncertain, involve unique or unknown risks, or are scientifically controversial?	☐	☒	The project is typical of Alaska energy projects, is not scientifically controversial, and will not use methods or materials with uncertain,

			unique or unknown risks.
4. Precedent for Future Action Will the proposed action establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?	☐	☒	The project is typical of Alaska energy projects and does not establish precedent.
5. Cumulative Impacts Will the proposed project relate to other actions with individually insignificant but cumulatively significant environmental effects?	☐	☒	The project will not contribute to cumulatively significant environmental effects.
6. Scope and Size Will the proposed project have a greater size and scope than is normal for the category of action?	☐	☒	The project is typical of Alaska energy projects.
7. Environmental Conditions Will the proposed project have the potential to degrade already existing poor environmental conditions or to initiate a degrading influence, activity or effect in areas not already significantly modified from their natural condition?	☐	☒	The project will not lead to environmental degradation.
8. Environmental Justice Will the proposed project have a disproportionately high and adverse effect on low income or minority populations? Ref: Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations	☐	☒	The project is designed to comply with state and federal codes and environmental regulations. The result of this project will be to reduce potential negative impacts to human health and the environment of minority and low-income persons, as well as provide all persons long-term access to reliable electric power.
9. Indian Sacred Sites Will the proposed project limit access to or ceremonial use of Indian sacred sites by Indian religious practitioners or adversely affect the physical integrity of such sacred sites? (EO 13007) *"Indian tribe" means an Indian or Alaska Native tribe, band, nation, pueblo, village, or community that the Secretary of the Interior acknowledges to exist as an Indian tribe pursuant to Public Law No. 103-454, 108 Stat. 4791, and "Indian" refers to a member of such an Indian tribe. (EO 13007)* Ref: Executive Order 13007, Indian Sacred Sites	☐	☒	Tribal consultation in conjunction with the SHPO/NHPA review did not lead to identification of sacred sites in the APE. The project will not adversely affect access to or the physical integrity of sacred sites.
Sensitive Resources	Impact Potential		Basis for determination
	Yes	No	
10. Section 106 Historic Properties Will the proposed project adversely affect properties in, or eligible for inclusion in, the National Register of Historic Places? Ref: National Historic Preservation Act of 1966 (16 U.S.C. 470 et seq.), as amended. (See 36 CFR 800, Protection of Historic Properties).	☐	☒	SHPO agreed with a determination of No Historic Properties Affected (NHPA) on March 25, 2019.
11. Endangered Species Will the proposed project adversely affect species listed, or proposed to be listed on the Endangered or Threatened Species List, or the specific	☐	☒	The project is located outside critical habitat for 2 threatened species: Steller's Eiders and Northern Sea

critical habitat? Ref: Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), as amended. (See 50 CFR part 402).			Otters. The project is not likely to adversely affect threatened and endangered species.
12. Historic or Cultural Resources Will the proposed action adversely impact the historic and cultural environment of the Nation? Ref: Executive Order 11593, Protection and enhancement of the cultural environment.	☐	☒	See Box 10
13. Park, Recreation or Refuge Lands Will the proposed project have significant adverse direct or indirect effects on National or State Park, Recreation or Refuge lands?	☐	☒	The project is near, but not within the Alaska Peninsula National Wildlife Refuge, the Alaska Maritime National Wildlife Refuge and the Aniakchak National Preserve and will have no adverse effects.
14. Wilderness Areas Will the proposed project adversely impact a wilderness area? Ref: Wilderness Act of 1964 (16 U.S.C. 1131 et seq.), as amended.	☐	☒	The project area is not located in a wilderness area.
15. Wild and Scenic Rivers Is the proposed project a "Water Resources Project" that will impact a wild, scenic or recreational river area and create conditions inconsistent with the character of the river? Ref: Wild & Scenic Rivers Act (16 U.S.C. 1271 et seq.), as amended.	☐	☒	The project is not a "Water Resources Project" and will not impact the wild Meshik river.
16. National Natural Landmarks Will the proposed project impact a National Natural Landmark? Ref: Historic Sites Act of 1935 (16 U.S.C. 461 et seq.), as amended.	☐	☒	Aniakchak Crater, located within Aniakchak National Preserve and Monument will not be impacted by the project.
17. Sole Source Aquifers If the proposed action would not have adverse effects on this resource, it may be considered that there is no Impact Potential. Ref: Safe Drinking Water Act of 1974, (42 U.S.C. 201, 300 et seq., and 21 U.S.C. 349), as amended. (See 40 CFR part 149).	☐	☒	According to the EPA website, there are no sole source aquifers in Alaska.
18. Prime Farmlands Will the proposed project convert significant agricultural lands to non-agricultural uses? Ref: Farmlands Protection Policy Act of 1981 (7 U.S.C. 4201 et seq.), as amended. (See 7 CFR part 658).	☐	☒	No farmland exists at or near the project area.
19. Wetlands Will the proposed project adversely affect wetlands or will there be construction in wetlands, except in conformance with a U.S. Corps of Engineers Section 404 Permit? Ref: Executive Order 11990, Protection of Wetlands	☐	☒	If a future construction phase of electric distribution crosses wetlands it will be permitted under NWP 12.

20. Floodplains Will the proposed project involve construction in a floodplain or impact floodplain development? Ref: Executive Order 11988, Floodplain Management	☐	☒	The project will not involve construction in a floodplain.
21. National Monuments Will proposed project impact a National Monument?	☐	☒	Aniakchak National Preserve and Monument, west of Port Heiden, will not be impacted.
22. Ecologically Significant or Critical Areas Will the proposed project impact an ecologically significant or critical area?	☐	☒	The project is not near any known ecologically sensitive or critical areas.
23. Other Known Reasons Is an environmental assessment required for other known reasons?	☐	☒	No other known reasons identifed.

Additional Comments

The power plant and heat recovery portion of the project are categorically excluded under CATEX B3. The electric distribution construction is categorically excluded under CATEX B6. Future phases of electrical distribution work that may affect wetland areas will be permitted under the USACE NWP program – NWP 12.

PREPARED BY

Date	Typed or Printed Name and Title	Signature
6/14/19	Steven J. Stassel, P.E. Gray Stassel Engineering, Inc.	Steven J Stassel

Organization: Alan Fetters, Project Manager, Alaska Energy Authority

DENALI COMMISSION APPROVING OFFICIAL

Based upon the categorical exclusion identified above, this completed checklist and attachments, I certify to the best of my knowledge, that the information provided above is complete and correct, and that:

A categorical exclusion determination is appropriate for this project	Yes: ☑	No: ☐
Further environmental analysis is required	Yes: ☐	No: ☑

Date		Signature
6/17/2019	John Whittington Designated Approving Official	

Additional Notes and Instructions

1. The basis for determination and documentation information must be traceable and establish the factual data to support the response to each question. Types of information to be included in this column are outlined below.

Printed Materials: These are useful sources of detailed information materials such as comprehensive land use plans, zoning maps, city master plans, environmental baseline surveys, environmental assessments, environmental impact statements and studies. Information must be current and must represent accepted methodologies, i.e., not so old that changing conditions make them irrelevant. Citations for the material should include enough information so that an outside reviewer can locate the specific reference, e.g., author, document title, publication date, and page number.

Examples include the Record of Decision, Finding of Suitability to Transfer, Finding of Suitability to Lease, General Services Administration (GSA) Property Suitability Determination Form, Federal Property Information Checklist, Environmental Baseline Surveys, Preliminary Assessment Reports, Environmental Assessments, draft or final Environmental Impact Statements, and City/County master plan or zoning map.

Possible sources of the above documents include as appropriate, GSA, Department of Housing and Urban Development, the property owner, military base environmental office, local governmental organizations, local public library, and City/County planning office.

Personal Contacts: Personal contacts are useful when the individual contacted is an accepted authority on the subject(s), and the interview is documented. Supporting documentation should include the name, organization, and title of the person contacted and the date of the conversation. Examples include EPA officials, EPA hotlines, officials from state or local planning offices and environmental offices, or an environmental officer of an agency.

Site Visits: A site visit does not usually involve any testing or measurements. A site visit is an important method for initial screening of the issues, but for some of the categories it may be inadequate for final evaluation, Supporting documentation should include date of the site visit, by whom, and the supporting observation.

2. The agency must include pollution prevention considerations in the siting, design, construction, renovation, and operation of the project or facility. The questionnaire items on sedimentation and erosion control measures and storm water control plan are also pollution prevention related.

SECTION 106 HISTORIC PROPERTIES

Alison Sterley

From: Alison Sterley <alison@gse.engineering>
Sent: Sunday, April 28, 2019 1:01 PM
To: Steve Stassel
Subject: Fw: SHPO Port Heiden Power System Upgrade Project
Attachments: 3130-1R DC 2019-00358 Port Heiden Power Upgrade.pdf

---

From: Meitl, Sarah J (DNR) <sarah.meitl@alaska.gov>
Sent: Thursday, April 25, 2019 3:22 PM
To: Alison Sterley
Subject: RE: SHPO Port Heiden Power System Upgrade Project

File No. 3130-1R DC / 2019-00358

Dear Ms. Sterley,

The Alaska State Historic Preservation Office (AK SHPO) received your correspondence (dated March 22, 2019) concerning the subject project on March 22, 2019. Following our review of the documentation provided, we concur with the finding of No Historic Properties Affected.

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 response does not end the 30-day review period provided to other consulting parties. Should unidentified archaeological resources be discovered in the course of the project, work must be interrupted until the resources have been evaluated in terms of the National Register of Historic Places eligibility criteria (36 CFR 60.4), in consultation with our office.

Thank you for the opportunity to comment. Please contact Sarah Meitl at 907-269-8720 or sarah.meitl@alaska.gov if you have any questions or if we can be of further assistance.

Best,

Sarah Meitl
Review and Compliance Coordinator

Alaska State Historic Preservation Office / Office of History and Archaeology
550 West 7th Avenue, Suite 1310
Anchorage, AK 99501-3510
sarah.meitl@alaska.gov
907-269-8720

From: DNR, Parks OHA Review Compliance (DNR sponsored)
Sent: Wednesday, March 27, 2019 3:23 PM
To: Meitl, Sarah J (DNR) <sarah.meitl@alaska.gov>
Subject: FW: SHPO Port Heiden Power System Upgrade Project

2019-00358

From: Alison Sterley <alison@gse.engineering>
Sent: Friday, March 22, 2019 11:43 AM
To: DNR, Parks OHA Review Compliance (DNR sponsored) <oha.revcomp@alaska.gov>
Cc: Steve Stassel <steve@gse.engineering>; Tom Wolf <twolf@denali.gov>; Scott Anderson <city.portheiden@gmail.com>; Fetters, Alan W (AIDEA) <afetters@akenergyauthority.org>; admin@portheiden.com
Subject: SHPO Port Heiden Power System Upgrade Project

OHA:

Attached please find a Request for Concurrence with a finding of No Historic Properties Affected for the Port Heiden Power System Upgrade Project.

Thank you,

Alison Sterley
Cultural Resource Specialist
Gray Stassel Engineering, Inc
907-349-0100

3130-1R DC

Gray Stassel Engineering, Inc.

P.O. Box 111405
Anchorage, Alaska 99511-1405
Ph. (907) 349-0100, Fax (907) 349-8001

March 22, 2019

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

Subject: Port Heiden Power System Upgrade Project
Request Concurrence of Finding of No Historic Properties Affected

Dear Ms. Bittner:

Gray Stassel Engineering, Inc., in cooperation with the Alaska Energy Authority (AEA), is working with Denali Commission (DC) to upgrade the community of Port Heiden's energy infrastructure. The scope of the project includes diesel power plant replacement, heat recovery system installation, and electrical distribution upgrades. Funding for the project is provided by the Denali Commission (DC). Participants in the project include the City of Port Heiden and the Lake and Peninsula School District.

The power plant and heat recovery portion of the project is located within Section 4 of Township 38 South, Range 59 West. The proposed, future electrical distribution upgrades are located throughout the community, within Sections 7, 8, 17-20, 29-32 Township 37 South and Sections 5-8, 17, 18, Township 38 South within Range 58 West; and Sections 9-17, 20-29, 32-36, Township 37 South and Sections 1-4 & 9-16, Township 38 South, within Range 59 West , Seward Meridian.

Attached are Figures E1 and M1, which include a vicinity map showing the overall project area with the Area of Potential Effect (APE) in colored lines and including the new power plant area in black; and the power plant area site plan. Pursuant to 36 CFR 800.4(d)(1), implementing regulations of Section 106 of the National Historic Preservation Act, on behalf of the Denali Commission, AEA requests concurrence that no historic properties would be affected by the proposed project.

The new power plant site is located adjacent to the City tank farm and northwest of the Village Shop, on an existing gravel pad. The existing pad will be excavated to sand approximately three feet below grade. Shallow foundations will be built and gravel fill will be placed with material from local established borrow pits. Approximately 10.25 miles of electric distribution will be installed in existing easements, right-of-ways and in customer property. Heat recovery will be installed from the power plant to the community school property.

The Alaska Historic Resources Survey (AHRS) was reviewed in March and October, 2018. There are several sites in the Port Heiden area including CHK-2 St. Nicholas Church, CHK-28 Old village site of Meshik, and CHK-37 Port Heiden White Alice Communication System (WACS) (2 locations, near Meshik and at the airstrip) eligible for NRHP. All cataloged cultural resource areas are outside the Area of Potential Affect (APE).

2019-00358

Gray Stassel Engineering, Inc.

P.O. Box 111405
Anchorage, Alaska 99511-1405
Ph. (907) 349-0100, Fax (907) 349-8001

There are no known archaeological or prehistoric sites at the proposed project location. The current proposed project would have no adverse impact on known cultural resources.

Correspondence has been submitted to the Native Village of Port Heiden requesting their concurrence with a Finding of No Historic Properties Affected. Additionally, the City and Native Village of Port Heiden are copied on this correspondence.

Should unidentified cultural resources be discovered in the course of the project, work will be interrupted until the resources have been evaluated in terms of the National Register of Historic Places eligibility criteria in consultation with the SHPO office.

Please notify me as soon as possible if you anticipate any concerns with the proposed project. If you have any questions or need additional information, please call me at (907) 349-0100, or fax your comments to (907) 349-8001.

Sincerely,
Gray Stassel Engineering, Inc.

Alison Sterley
Cultural Resource Specialist

Attachments – as noted

cc: Tom Wolf, Denali Commission, twolf@denali.gov
Scott Anderson, City of Port Heiden, city.portheiden@gmail.com
John Christensen, Jr., Native Village of Port Heiden, admin@portheiden.com
Alan Fetters, Alaska Energy Authority, afetters@akenergyauthority.org

SJM No Historic Properties Affected
Alaska State Historic Preservation Officer
Date: 4.25.19 File No.: 3130-1R DC 2019-00358
Please review: 36 CFR 800.13 / A.S. 41.35.070(d)

Gray Stassel Engineering, Inc.

P.O. Box 111405
Anchorage, Alaska 99511-1405
Ph. (907) 349-0100, Fax (907) 349-8001

March 22, 2019

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

Subject: Port Heiden Power System Upgrade Project
Request Concurrence of Finding of No Historic Properties Affected

Dear Ms. Bittner:

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The power plant and heat recovery portion of the project is located within Section 4 of Township 38 South, Range 59 West. The proposed, future electrical distribution upgrades are located throughout the community, within Sections 7, 8, 17-20, 29-32 Township 37 South and Sections 5-8, 17, 18, Township 38 South within Range 58 West; and Sections 9-17, 20-29, 32-36, Township 37 South and Sections 1-4 & 9-16, Township 38 South, within Range 59 West , Seward Meridian.

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Gray Stassel Engineering, Inc.

P.O. Box 111405
Anchorage, Alaska 99511-1405
Ph. (907) 349-0100, Fax (907) 349-8001

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Correspondence has been submitted to the Native Village of Port Heiden requesting their concurrence with a Finding of No Historic Properties Affected. Additionally, the City and Native Village of Port Heiden are copied on this correspondence.

Should unidentified cultural resources be discovered in the course of the project, work will be interrupted until the resources have been evaluated in terms of the National Register of Historic Places eligibility criteria in consultation with the SHPO office.

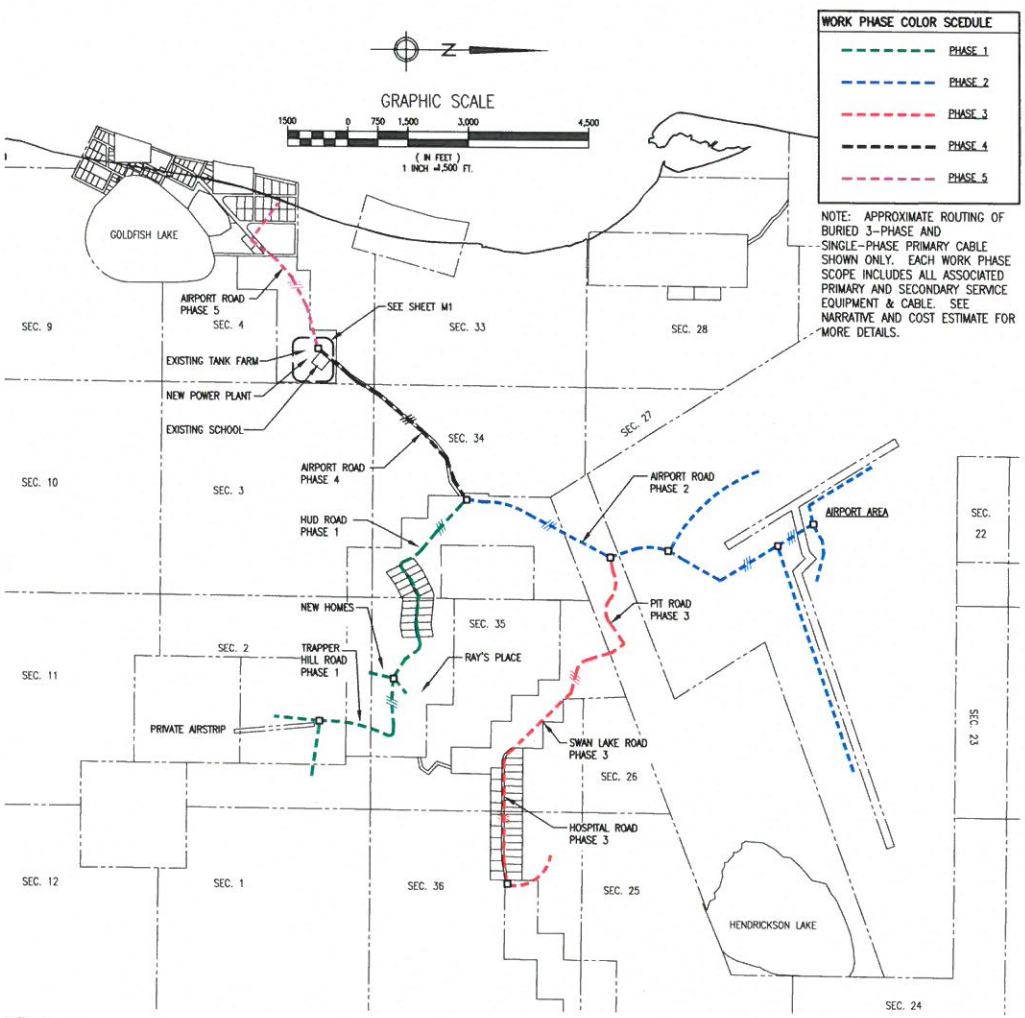
Please notify me as soon as possible if you anticipate any concerns with the proposed project. If you have any questions or need additional information, please call me at (907) 349-0100, or fax your comments to (907) 349-8001.

Sincerely,
Gray Stassel Engineering, Inc.

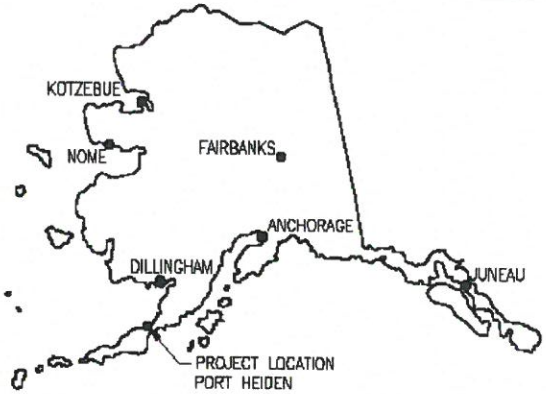
Alison Sterley
Cultural Resource Specialist

Attachments – as noted

cc: Tom Wolf, Denali Commission, twolf@denali.gov
Scott Anderson, City of Port Heiden, city.portheiden@gmail.com
John Christensen, Jr., Native Village of Port Heiden, admin@portheiden.com
Alan Fetters, Alaska Energy Authority, afetters@akenergyauthority.org



1 E1 DISTRIBUTION OVERALL AREA AND WORK PHASE PLAN
1"=1,500'



SECTIONS 7,8,17-20,29-32, T037S, R058W
SECTIONS 5-8,17,18, T038S, R058W
SECTIONS 9-17,20-29,32-36 T037S, R059W
SECTIONS 1-4,9-16, T038S, R059W
SEWARD MERIDIAN

LAT: 56.9241° NORTH
LONG: 158.6613° WEST

CONCEPT DESIGN NOT FOR CONSTRUCTION MARCH 2018

ALASKA ENERGY AUTHORITY
RURAL POWER SYSTEM UPGRADE

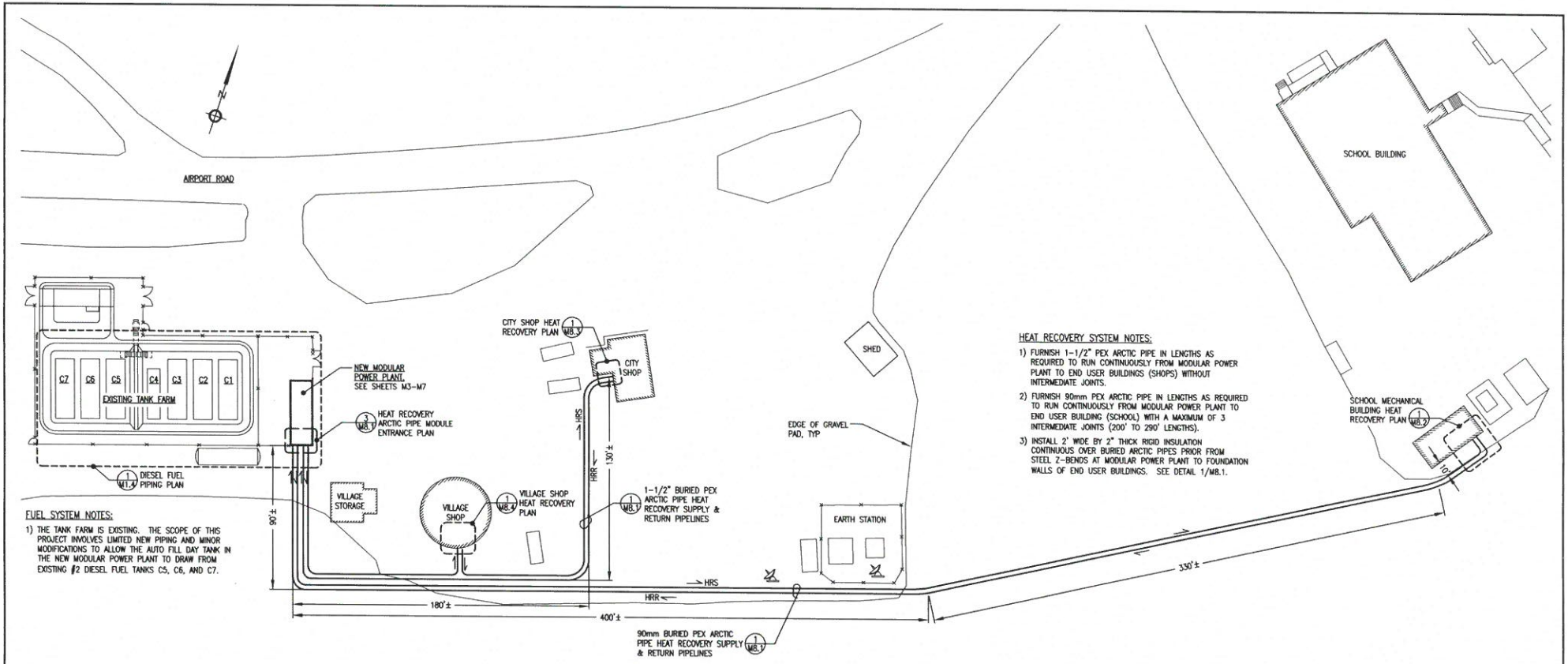
ALASKA ENERGY AUTHORITY

PROJECT: PORT HEIDEN POWER SYSTEM UPGRADE

TITLE: DISTIBUTION OVERALL AREA AND WORK PHASE PLAN

Gray Stassel Engineering, Inc.
P.O. 111405, Anchorage, AK 99511 (907)349-0100

DRAWN BY: JTD	SCALE: AS NOTED
DESIGNED BY: BCG/CMV	DATE: 3/23/18
FILE NAME: PTHD RPSU E1	SHEET: E1 OF 1
PROJECT NUMBER:	



FUEL SYSTEM NOTES:

1) THE TANK FARM IS EXISTING. THE SCOPE OF THIS PROJECT INVOLVES LIMITED NEW PIPING AND MINOR MODIFICATIONS TO ALLOW THE AUTO FILL DAY TANK IN THE NEW MODULAR POWER PLANT TO DRAW FROM EXISTING #2 DIESEL FUEL TANKS C5, C6, AND C7.

HEAT RECOVERY SYSTEM NOTES:

1) FURNISH 1-1/2" PEX ARCTIC PIPE IN LENGTHS AS REQUIRED TO RUN CONTINUOUSLY FROM MODULAR POWER PLANT TO END USER BUILDINGS (SHOPS) WITHOUT INTERMEDIATE JOINTS.
2) FURNISH 90mm PEX ARCTIC PIPE IN LENGTHS AS REQUIRED TO RUN CONTINUOUSLY FROM MODULAR POWER PLANT TO END USER BUILDING (SCHOOL) WITH A MAXIMUM OF 3 INTERMEDIATE JOINTS (200' TO 290' LENGTHS).
3) INSTALL 2' WIDE BY 2" THICK RIGID INSULATION CONTINUOUS OVER BURIED ARCTIC PIPES PRIOR FROM STEEL Z-BENDS AT MODULAR POWER PLANT TO FOUNDATION WALLS OF END USER BUILDINGS. SEE DETAIL 1/M8.1.

1/M1 NEW POWER PLANT AREA WORK PLAN
1"=30'

95% DESIGN
NOT FOR
CONSTRUCTION

ALASKA ENERGY AUTHORITY

PROJECT: PORT HEIDEN RURAL POWER SYSTEM POWER PLANT UPGRADE

TITLE: NEW POWER PLANT AREA WORK PLAN

Gray Stassel Engineering, Inc.
P.O. 111405, Anchorage, AK 99511 (907)349-0100

DRAWN BY: JTD		SCALE: AS NOTED
DESIGNED BY: BCG		DATE: 3/11/19
FILE NAME: PTH PPU M1		SHEET: M1 OF 1
PROJECT NUMBER:		

Gray Stassel Engineering, Inc.

P.O. Box 111405
Anchorage, Alaska 99511-1405
Ph. (907) 349-0100, Fax (907) 349-8001

March 22, 2019 sent via email: admin@portheidenalaska.com

John Christensen, Jr., President
Native Village of Port Heiden
PO Box 49007
Port Heiden, AK 99549

Subject: **Port Heiden Power System Upgrade Project**
Request Concurrence of Finding of No Historic Properties Affected

Mr. Christensen:

This letter is in followup to the Request for Concurrence submitted to the State Historic Preservation Officer dated March 22, 2019. Please review this information and indicate whether you concur with this finding.

Gray Stassel Engineering, Inc., in cooperation with the Alaska Energy Authority (AEA), is working with Denali Commission (DC) to upgrade the community of Port Heiden's energy infrastructure. The scope of the project includes diesel power plant replacement, heat recovery system installation, and electrical distribution upgrades. Funding for the project is provided by the Denali Commission (DC). Participants in the project include the City of Port Heiden and the Lake and Peninsula School District.

The power plant and heat recovery portion of the project is located within Section 4 of Township 38 South, Range 59 West. The proposed, future electrical distribution upgrades are located throughout the community, within Sections 7, 8, 17-20, 29-32 Township 37 South and Sections 5-8, 17, 18, Township 38 South within Range 58 West; and Sections 9-17, 20-29, 32-36, Township 37 South and Sections 1-4 & 9-16, Township 38 South, within Range 59 West , Seward Meridian.

AEA, on behalf of the Denali Commission, has requested concurrence from the State Historic Preservation Office (SHPO) that no historic properties would be affected by the proposed project, pursuant to 36 CFR 800.4(d)(1), implementing regulations of Section 106 of the National Historic Preservation Act.

Please notify me as soon as possible if you anticipate any concerns with the proposed project. If you have any questions or need additional information, please call me at (907) 349-0100, or fax your comments to (907) 349-8001.

Sincerely,
Gray Stassel Engineering, Inc.
Alison Sterley
Alison Sterley
Cultural Resource Specialist
alison@gse.engineering

____**I concur with the finding of NHPA**
____**I do not concur with the finding of NHPA**
_____ _____
Signature **Date**

ENDANGERED SPECIES

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Anchorage Fish And Wildlife Conservation Office
4700 Blm Road
Anchorage, AK 99507
Phone: (907) 271-2888 Fax: (907) 271-2786

In Reply Refer To:
Consultation Code: 07CAAN00-2019-SLI-0037
Event Code: 07CAAN00-2019-E-00539
Project Name: Port Heiden Rural Power System Upgrade

May 29, 2019

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated critical habitat, and some candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Please note that candidate species are not included on this list. We encourage you to visit the following website to learn more about candidate species in your area: http://www.fws.gov/alaska/fisheries/fieldoffice/anchorage/endangered/candidate_conservation.htm

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered

species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Anchorage Fish And Wildlife Conservation Office
4700 Blm Road
Anchorage, AK 99507
(907) 271-2888

Project Summary

Consultation Code: 07CAAN00-2019-SLI-0037

Event Code: 07CAAN00-2019-E-00539

Project Name: Port Heiden Rural Power System Upgrade

Project Type: POWER GENERATION

Project Description: The Port Heiden RPSU project will upgrade the community's energy infrastructure including diesel power plant replacement, heat recovery system and electrical distribution upgrades.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/56.93265019445198N158.62102552594513W

Counties: Lake and Peninsula, AK

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Sea Otter *Enhydra lutris kenyoni* Population: Southwest Alaska DPS There is **final** critical habitat for this species. Your location is outside the critical habitat. ***This species is also protected by the Marine Mammal Protection Act, and may have additional consultation requirements.*** Species profile: https://ecos.fws.gov/ecp/species/2884	Threatened

Birds

NAME	STATUS
Steller's Eider *Polysticta stelleri* Population: AK breeding pop. There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1475	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Anchorage Fish And Wildlife Conservation Office
4700 Blm Road
Anchorage, AK 99507
Phone: (907) 271-2888 Fax: (907) 271-2786

In Reply Refer To:
Consultation Code: 07CAAN00-2019-SLI-0037
Event Code: 07CAAN00-2019-E-00098
Project Name: Port Heiden Rural Power System Upgrade

November 20, 2018

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated critical habitat, and some candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Please note that candidate species are not included on this list. We encourage you to visit the following website to learn more about candidate species in your area: http://www.fws.gov/alaska/fisheries/fieldoffice/anchorage/endangered/candidate_conservation.htm

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered

species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Anchorage Fish And Wildlife Conservation Office
4700 Blm Road
Anchorage, AK 99507
(907) 271-2888

Project Summary

Consultation Code: 07CAAN00-2019-SLI-0037

Event Code: 07CAAN00-2019-E-00098

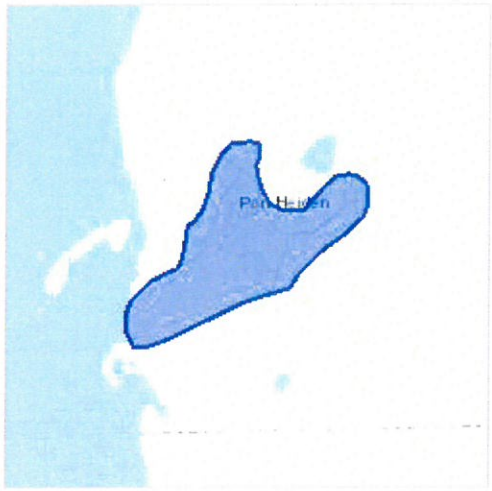
Project Name: Port Heiden Rural Power System Upgrade

Project Type: POWER GENERATION

Project Description: The Port Heiden RPSU project will upgrade the community's energy infrastructure including diesel power plant replacement, heat recovery system and electrical distribution upgrades.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/56.93265019445198N158.62102552594513W



Counties: Lake and Peninsula, AK

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Sea Otter *Enhydra lutris kenyoni* Population: Southwest Alaska DPS There is **final** critical habitat for this species. Your location is outside the critical habitat. ***This species is also protected by the Marine Mammal Protection Act, and may have additional consultation requirements.*** Species profile: https://ecos.fws.gov/ecp/species/2884	Threatened

Birds

NAME	STATUS
Steller's Eider *Polysticta stelleri* Population: AK breeding pop. There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1475	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

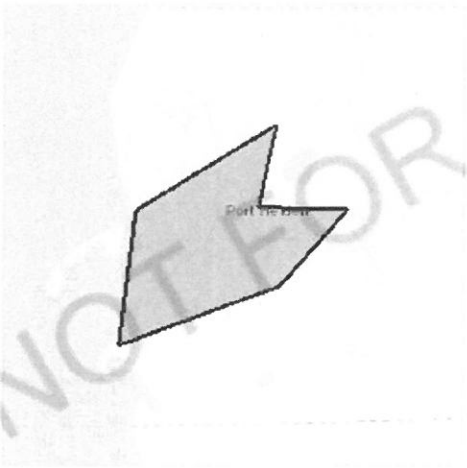
This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

NOT FOR CONSULTATION

Location

Lake and Peninsula County, Alaska



Local office

Anchorage Fish And Wildlife Conservation Office

(907) 271-2888
(907) 271-2786

4700 Blm Road
Anchorage, AK 99507

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS

NOT FOR CONSULTATION

Northern Sea Otter Enhydra lutris kenyoni There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/2884	Threatened Marine mammal

Birds

NAME	STATUS
Steller's Eider Polysticta stelleri There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/1475	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

NOT FOR CONSULTATION

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ

below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Feb 1 to Sep 30
Dunlin *Calidris alpina arcticola* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 20 to Jul 20
Marbled Godwit *Limosa fedoa* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481	Breeds May 1 to Jul 31
Pacific Golden-plover *Pluvialis fulva* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 20 to Aug 15

NOT FOR CONSULTATION

Red-throated Loon Gavia stellata Breeds May 1 to Sep 30

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence ( )

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season ( )
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

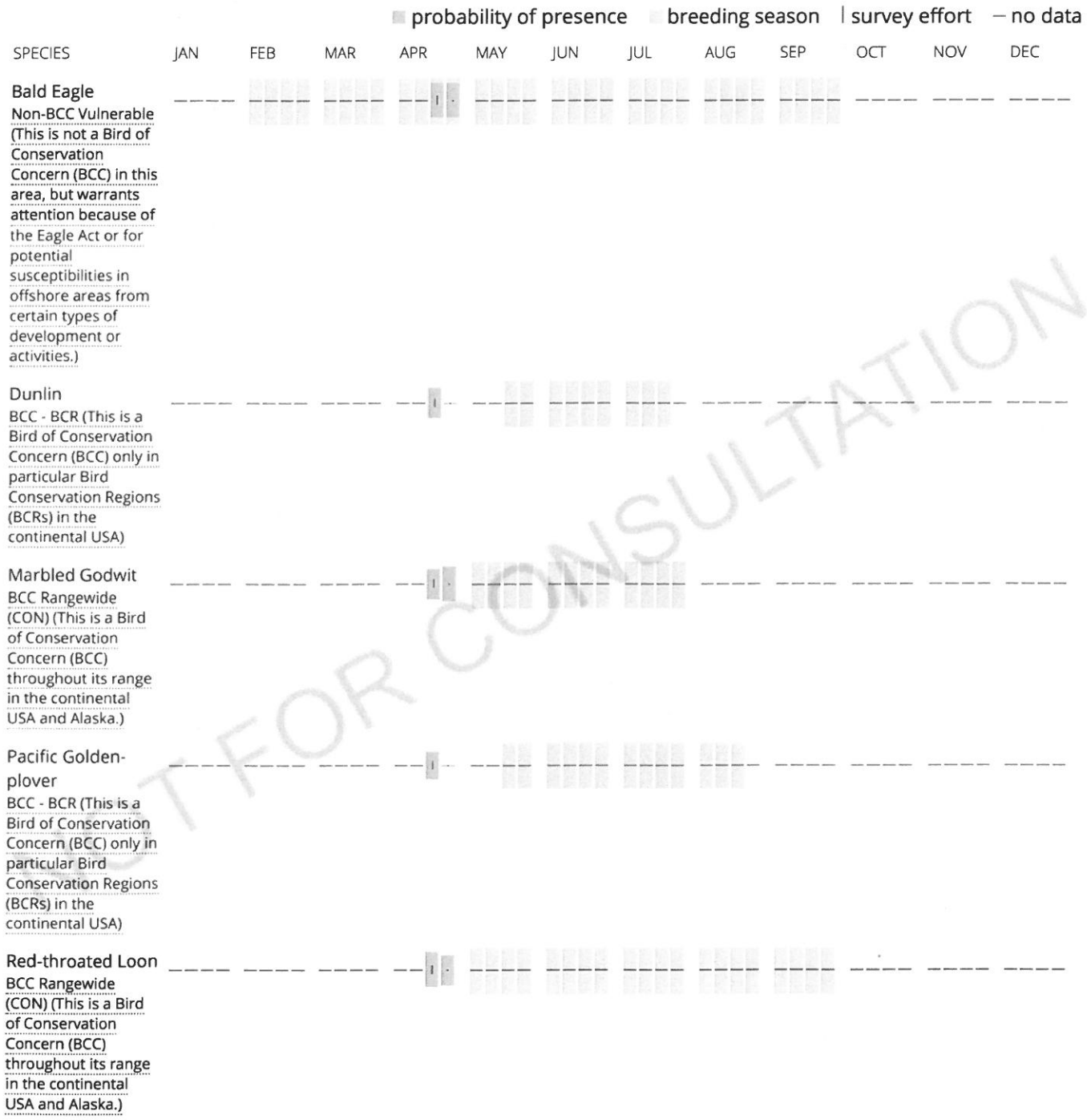
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

NOT FOR CONSULTATION

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



T FOR CONSULTATION

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to

occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the E-bird Explore Data Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

NOT FOR CONSULTATION

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

NOT FOR CONSULTATION

Marine mammals

Marine mammals are protected under the Marine Mammal Protection Act. Some are also protected under the Endangered Species Act[1] and the Convention on International Trade in Endangered Species of Wild Fauna and Flora[2].

The responsibilities for the protection, conservation, and management of marine mammals are shared by the U.S. Fish and Wildlife Service [responsible for otters, walruses, polar bears, manatees, and dugongs] and NOAA Fisheries[3] [responsible for seals, sea lions, whales, dolphins, and porpoises]. Marine mammals under the responsibility of NOAA Fisheries are **not** shown on this list; for additional information on those species please visit the Marine Mammals page of the NOAA Fisheries website.

The Marine Mammal Protection Act prohibits the take (to harass, hunt, capture, kill, or attempt to harass, hunt, capture or kill) of marine mammals and further coordination may be necessary for project evaluation. Please contact the U.S. Fish and Wildlife Service Field Office shown.

1. The Endangered Species Act (ESA) of 1973.
2. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is a treaty to ensure that international trade in plants and animals does not threaten their survival in the wild.
3. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following marine mammals under the responsibility of the U.S. Fish and Wildlife Service are potentially affected by activities in this location:

NAME

Northern Sea Otter Enhydra lutris kenyoni
https://ecos.fws.gov/ecp/species/2884

NOT FOR CONSULTATION

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

NOT FOR CONSULTATION

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal,

state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

WILD/SCENIC RIVERS

From NPS listing of Wild and Scenic Rivers

Meshik River is south of Port Heiden RPSU, the project will not impact the river

Meshik River	Lake and Peninsula	Headwaters including Meshik Lake south and west from Aleutian Range to Preserve boundary	24	Served as route across peninsula from Pacific side on Kejulik and Aniakchak Bays to Port Heiden area on Bristol Bay. Wildlife habitat for bears, moose, caribou, and wolves. Popular for guided hunting. Extensive wetlands along corridor.	Wild	Historic, Recreational, Wildlife, Other	Port Heiden	1993

(F) For the purposes of the segment of the Salmon River designated as a component of the Wild and Scenic Rivers System by this paragraph, there is hereby authorized to be appropriated from the Land and Water Conservation Fund, after October 1, 1980, not more than $6,200,000 for the acquisition of lands and interests in lands. (25) Alagnak, **Alaska** - That segment of the main stem and the major tributary to the Alagnak, the Nonvianuk River, within Katmai National Preserve; to be administered by the Secretary of the Interior. (26) Alatna, **Alaska** - The main stem within the Gates of the Arctic National Park; to be administered by the Secretary of the Interior. (27) Aniakchak, **Alaska** – That portion of the river, including its major tributaries, Hidden Creek, Mystery Creek, Albert Johnson Creek, and North Fork Aniakchak River, within the Aniakchak National Monument and National Preserve; to be administered by the Secretary of the Interior. (28) Charley, **Alaska** - The entire river, including its major tributaries, Copper Creek, Bonanza Creek, Hosford Creek, Derwent Creek, Flat-Orthmer Creek, Crescent Creek, and Moraine Creek, within the Yukon-Charley Rivers National Preserve; to be administered by the Secretary of the Interior. (29) Chilikadrotna, **Alaska** - That portion of the river within the Lake Clark National Park and Preserve; to be administered by the Secretary of the Interior. (30) John, **Alaska** - That portion within the Gates of the Arctic National Park; to be administered by the Secretary of the Interior. (31) Kobuk, **Alaska** - That portion within the Gates of the Arctic National Park and Preserve; to be administered by the Secretary of the Interior. (32) Mulchatna, **Alaska** - That portion within the Lake Clark National Park and Preserve; to be administered by the Secretary of the Interior. (33) Noatak, **Alaska** - The river from its source in the Gates of the Arctic National Park to its confluence with the Kelly River in the Noatak National Preserve; to be administered by the Secretary of the Interior. (34) North Fork of the Koyukuk, **Alaska** - That portion within the Gates of the Arctic National Park; to be administered by the Secretary of the Interior. (35) Salmon, **Alaska** - That portion within the Kobuk Valley National Park; to be administered by the Secretary of the Interior. (36) Tinayguk, **Alaska** - That portion within the Gates of the Arctic National Park; to be administered by the Secretary of the Interior. (37) Tlikakila, **Alaska** - That portion within the Lake Clark National Park; to be administered by the Secretary of the Interior. (38) Andreafsky, **Alaska** - That portion from its source, including all headwaters, and the East Fork, within the boundary of the Yukon Delta National Wildlife Refuge; to be administered by the Secretary of the Interior. (39) Ivishak, **Alaska** - That portion from its source, including all headwaters and an unnamed tributary from Porcupine Lake within the boundary of the Arctic National Wildlife Range; to be administered by the Secretary of the Interior. (40) Nowitna, **Alaska** - That portion from the point where the river crosses the west limit of township 18 south, range 22 east, Kateel River meridian, to its confluence with the Yukon River within the boundaries of the Nowitna National Wildlife Refuge; to be administered by the Secretary of the Interior. (41) Selawik, **Alaska** - That portion from a fork of the headwaters in township 12 north, range 10 east, Kateel River meridian to the confluence of the Kugarak River; within the Selawik National Wildlife Refuge to be administered by the Secretary of the Interior. (42) Sheenjek, **Alaska** - The segment within the Arctic National Wildlife Refuge; to be administered by the Secretary of the Interior. (43) Wind, **Alaska** - That portion from its source, including all headwaters and one unnamed tributary in township 13 south, within the boundaries of the Arctic National Wildlife Refuge; to be administered by the Secretary of the Interior. (44) Alagnak, **Alaska** - Those segments or portions of

the main stem and Nonvianuk tributary lying outside and westward of the Katmia National Park/Preserve and running to the west boundary of township 13 south, range 43 west; to be administered by the Secretary of the Interior. (45) Beaver Creek, **Alaska** - The segment of the main stem from the vicinity of the confluence of the Bear and Champion Creeks downstream to its exit from the northeast corner of township 12 north, range 6 east, Fairbanks meridian within the White Mountains National Recreation Area, and the Yukon Flats National Wildlife Refuge, to be administered by the Secretary of the Interior. (46) Birch Creek, **Alaska** - The segment of the main stem from the south side of Steese Highway in township 7 north, range 10 east, Fairbanks meridian, downstream to the south side of the Steese Highway in township 10 north, range 16 east; to be administered by the Secretary of the Interior. (47) Delta, **Alaska** - The segment from and including all of the Tangle Lakes to a point one-half mile north of Black Rapids; to be administered by the Secretary of the Interior. (48) Fortymile, **Alaska** - The main stem within the State of **Alaska**; O'Brien Creek; South Fork; Napoleon Creek, Franklin Creek, Uhler Creek, Walker Fork downstream from the confluence of Liberty Creek; Wade Creek; Mosquito Fork downstream from the vicinity of Kechumstuk; West Fork Dennison Fork downstream from the confluence of Logging Cabin Creek; Dennison Fork downstream from the confluence of West Fork Dennison Fork: Logging Cabin Creek; North Fork; Hutchison Creek; Champion Creek; the Middle Fork downstream from the confluence of Joseph Creek; and Joseph Creek; to be administered by the Secretary of the Interior. (49) Gulkana, **Alaska** - The main stem from the outlet of Paxon Lake in township 12 north, range 2 west, Copper River meridian to the confluence with Sourdough Creek; the south branch of the west fork from the outlet of an unnamed lake in sections 10 and 15, township 10 north, range 7 west, Copper River meridian to the confluence with the west fork; the north branch from the outlet of two unnamed lakes, one in sections 24 and 25, the second in sections 9 and 10, township 11 north, range 8 west, Copper River meridian to the confluence with the west fork; the west fork from its confluence with the north and south branches downstream to its confluence with the main stem; the middle fork from the outlet of Dickey Lake in township 13 north, range 5 west, Copper River meridian to the confluence with the main stem; to be classified as a wild river area and to be administered by the Secretary of the Interior. (50) Unalakleet, **Alaska** - The segment of the main stem from the headwaters in township 12 south, range 3 west, Kateel River meridian extending downstream approximately 65 miles to the western boundary of township 18 south, range 8 west; to be administered by the Secretary of the Interior.

NATIONAL NATURAL LANDMARKS

National Natural Landmarks

Aniakchak Crater

Aniakchak Crater

Aniakchak Crater, located within Aniakchak National Monument, is one of the largest explosive craters in the world, averaging 6 miles wide and 2000 feet deep. The crater contains Surprise Lake, a warm springs fed lake that provides spawning grounds for a unique subspecies of salmon. The lake is the source of the Aniakchak River, which flows through a breach in the crater rim to the Pacific Ocean. The last eruption of this volcano was in 1931.

Location: Alaska, AK

Year designated: 1967

Acres: 20,727

Ownership: Federal

WETLANDS/
FLOODPLAIN

Port Heiden

City Office: 907-837-2209
Revised: 05-Jul-2017

Alaska District

Status	Second Class City	**Last Flood Event**	-
Population	102	**Elevation**	-
River System	Meshik River	**Flood of Record**	-
Coastal Area	Bristol Bay	**Baseline Erosion Report Year (Updated)**	2007 (-)
NFIP Status	Not Participating	**Flood Insurance Rate Map**	-
Flood Gage	-	**Flood Insurance Study**	-

Gage Info: There are no USGS or NWS gages near this community.

Profile Map:
http://dcra.commerce.alaska.gov/profile%20Pdfs/Port_Heiden_2002_Area_Map_30x42.pdf

FEMA Map: -

High Water Mark: N/A

Floodplain Notes: There is no known flooding and no high water marks in the community. Fifteen to twenty feet of inland erosion has been estimated each year. The community reported about 40 feet was eroded after fall storms in 2007.

U.S. Army Corps
of Engineers
Alaska District

ALASKA BASELINE EROSION ASSESSMENT

Erosion Information Paper - Port Heiden, Alaska

Current as of October 24, 2007

Community Information

Port Heiden (HIGH-dun), a.k.a. Meshik, population 79, is at the mouth of the Meshik River on the north side of the Alaska Peninsula, 424 miles southwest of Anchorage. It is near the Aniakchak National Preserve and Monument. Port Heiden is a 2nd class city, in the Lake and Peninsula Borough.

Description of Erosion Problem

Port Heiden reports coastline erosion along Bristol Bay. Causes of and factors contributing to the erosion include fall storms with high tides, storm surges, wind and wave action, and easily-eroded gravel and sand along the shoreline. 15 to 20 feet of inland erosion has been estimated each year. Port Heiden reports losing over 100 feet of beach in one section in the last 5 years, which exposed an old grave yard in 2003 and an old US Army landfill in 2007. More recently, Port Heiden reported about 40 feet was eroded during 2007. The erosion is occurring along the 2-mile community beachfront between "Grandma Maggie's", an old fishing site, and the boat landing site.

The borough planner estimates that from the August 2002 Port Heiden community profile map to the present time there was about 200 feet of bank loss; which is an average loss of 40 feet per year. A 2000 Corps trip report on Port Heiden states more than 40 feet of coastline was lost during 2 storms in 2000. The Corps compared existing conditions to a 1983 aerial photo indicating an erosion rate of about 20 feet per year.

Potential Damages

According to the community survey, riverbank erosion destroyed several small buildings in the community. Many buildings were relocated inland in 1981, including the school and the clinic. Since then, 2 cemeteries have been moved. One cemetery was relocated by the residents. The other was moved in a coordinated federal/state response effort.

Several buildings, structures, and facilities are threatened by or are undergoing loss from coastal erosion, including: (a) a residence and some vacated houses estimated to be less than 500 feet from the eroding coastline, (b) the marine fuel header was closely approached by recent storm surges and may be impacted this year if ice does not form along the coast, (c) new fuel tanks installed in 2004, (d) 2 cemetery sites, (e) roads, (f) the old Saint Agafia Russian Orthodox Church built in the 1800s, and (g) the landfill is currently being lost. The access road along the shoreline to the boat launch site has eroded, so the residents now drive along the beach. Continued erosion may cut off access to the harbor area. The community is concerned that

building debris and hazardous material could adversely impact subsistence fishing and hunting if it is washed into the bay. The communities' fuel header is only 28 feet from the new high water mark from storm surges and may erode under this next fall and winter.

The community has not implemented erosion protection measures other than relocating community facilities (e.g., cemeteries) and structures. The community survey indicates that no protective measures have been suggested to the community.

Photos and Diagrams

Photos of erosion provided by the Port Heiden Native council and the Lake and Peninsula Borough are attached. Also, attached is a diagram showing the linear extent of erosion along the community's coastline.

References

Alaska DOT/PF. 1984. *Final Task Force on Erosion Control*. Prepared by Department of Transportation and Public Facilities.

USACE. 1975. *Port Heiden/Ugashik, Erosion Study*. Prepared for Alaska District, U.S. Corps of Engineers by Hewitt V. Lounsbury & Associates.

USACE. 1976. *Letter to Freeman Roberts*. Alaska District, U.S. Corps of Engineers.

USACE. 2000. *Field Trip to Port Heiden*. Alaska District, U.S. Corps of Engineers.

USACE. 2007. *Alaska Community Erosion Survey, OMB approved number 07100001*, expires September 30, 2009 provided via facsimile from Lynn Carlson, administrative assistant for the Native Council of Port Heiden on November 1, 2007 with additional telephone interviews and added information from Marv Smith, Lake and Peninsula Borough planner .

Additional Information

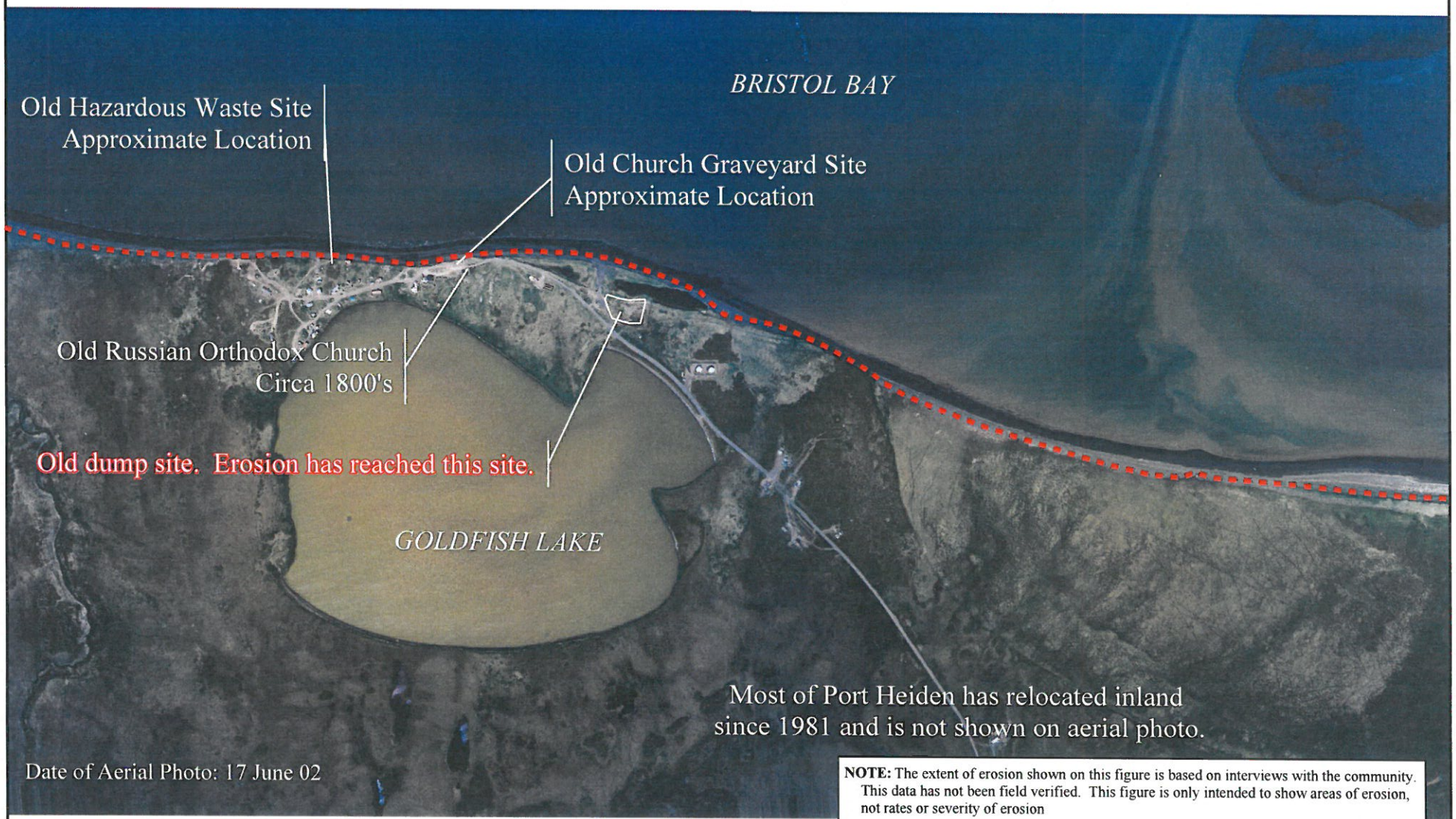
This information paper, as well as those for other communities, can be accessed on the internet at www.alaskaerosion.com. For more information please contact the Corps of Engineers, project manager at (907) 753-5694 or email Alaska.Erosion.POA@usace.army.mil

Photo 1: Port Heiden landfill eroding into Bristol Bay, Nov. 2007.

Photo 2: Fuel Header 38 ft. from coastline, Nov. 2007.

Photo 3: Roads in the old Port Heiden town site area continue to be cut off by erosion, Nov. 2007.

Port Heiden Beach erosion and the loss of a Road to Meshik and the community lagoon boat storage, May 2008.



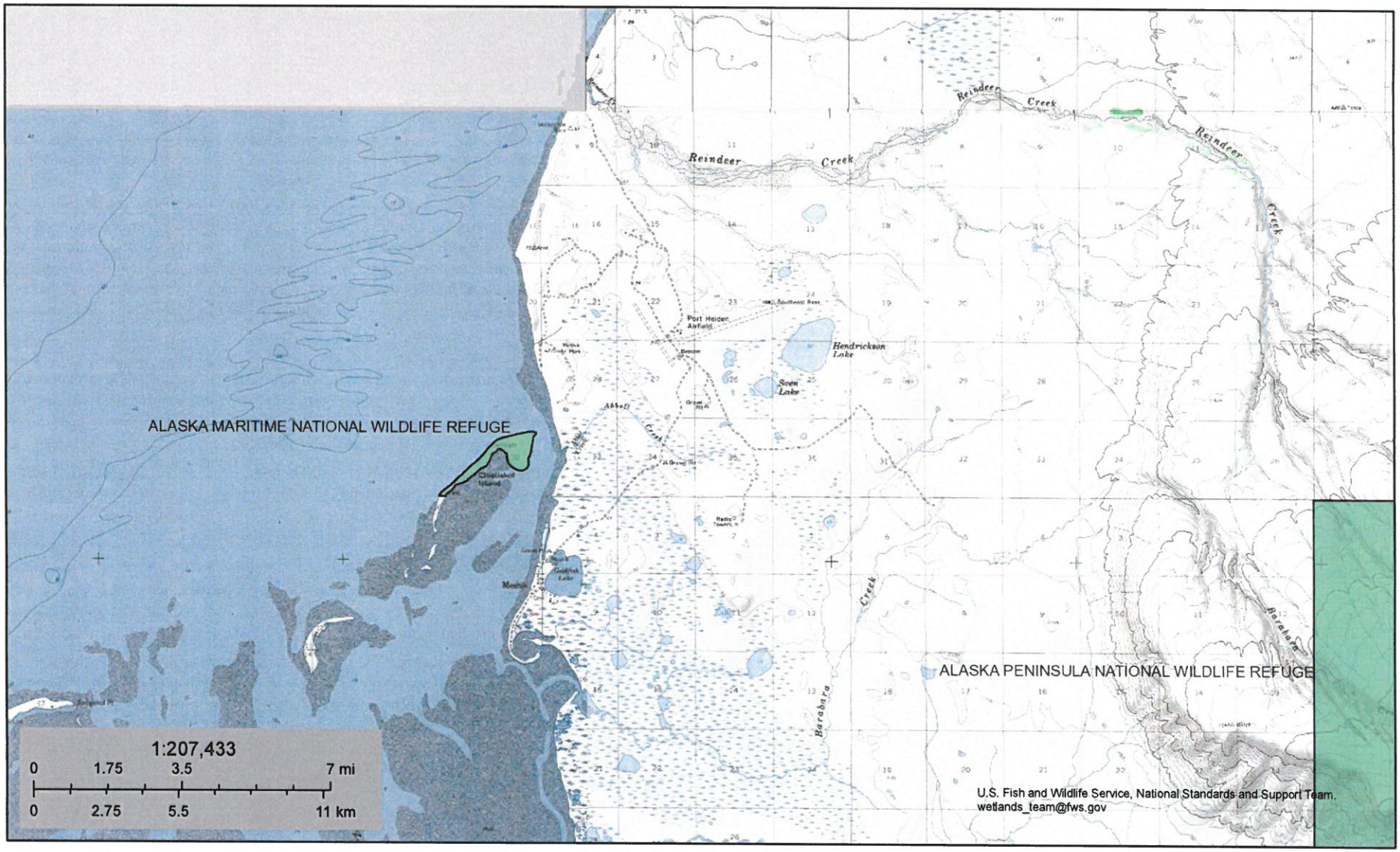
NOTE: The extent of erosion shown on this figure is based on interviews with the community. This data has not been field verified. This figure is only intended to show areas of erosion, not rates or severity of erosion

	Alaska District Corps of Engineers Civil Works Branch	- - - Linear Extent of Erosion		N	Alaska Baseline Erosion Port Heiden, Alaska

U.S. Fish and Wildlife Service

National Wetlands Inventory

Port Heiden wetlands



November 16, 2018

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

June 3, 2019 Notes

Port Heiden Rural Power System Upgrade Project - UPLANDS

Reference: AEA Environmental Review Checklist for Port Heiden Bulk Fuel Upgrades (HDL, August 2015)

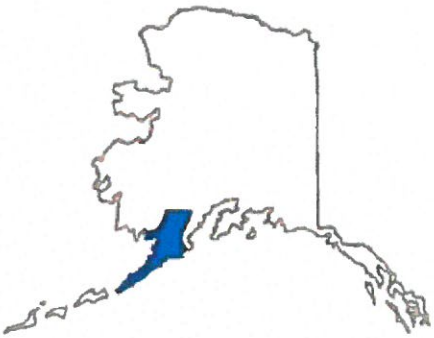
> An office-based review of potential wetlands in the project area was conducted in July 2015. The proposed tank farm site was determined to be uplands:
>
> "The proposed tank farm site avoids wetlands by locating the new tank farm in uplands."

The new power plant will be located on the existing Port Heiden tank farm gravel pad. Artic pipe will be routed below grade between the power plant and adjacent school mechanical building. The arctic piping route is also located within uplands.

L&PB DEVELOPMENT PERMIT

Lake and Peninsula Borough
P.O. Box 495
King Salmon, Alaska 99613

Telephone: (907) 246-3421
Fax: (907) 246-6602



May 10, 2019

Alison Sterley
Cultural Resource Specialist
Gray Stassel Engineering, Inc.
P.O. Box 111405
Anchorage, AK 99511-1405

Ms. Sterley,

On May 10, 2019 the Lake and Peninsula Borough Planning Commission met and reviewed the Development Permit Request for the Port Heiden Power System Upgrades. The Planning Commission approved the Development Permit with the following conditions:

- Fire Marshal Permit Approval

I have enclosed the LPB Final Findings of Fact and Decision. If you have any questions, please feel free to contact me.

Thank you,

Danica Wilson
Community Development Coordinator

DEVELOPMENT PERMIT 19-03

Port Heiden Power System Upgrades

On May 10, 2019 the Lake and Peninsula Borough Planning Commission considered an application submitted by Alison Sterley, Cultural Resource Specialist for Gray Stassel Engineering, Inc. , on behalf of the City of Port Heiden and the Lake and Peninsula School District for a development permit. The applicant proposes to upgrade Port Heiden's energy infrastructure. The scope of the project includes diesel power plant replacement, heat recovery system installation, and electrical distribution upgrades.

FINDINGS OF FACT

Application

Alison Sterley, Cultural Resource Specialist for Gray Stassel Engineering Inc., submitted an application on behalf of the City of Port Heiden and the Lake and Peninsula School District for a development permit for Port Heiden power system upgrades. Gray Stassel Engineering Inc. is working with the Alaska Energy Authority, who in partnership with the Denali Commission, is upgrading the community of Port Heiden's energy infrastructure.

The new power plant site is located adjacent to the City tank farm and northwest of the Village Shop, on an existing gravel pad. The existing pad will be excavated to sand approximately three feet below grade. Shallow foundations will be built and gravel fill will be placed with material from local established borrow pits. Approximately 10.25 miles of electric distribution will be installed in existing easements, right-of-ways and in customer property. Heat recovery will be installed from the power plant to the community school property.

The project location supports direct pipeline connection to the City tank farm, interconnection to the existing underground distribution system, and providing recovered heat to the school building, City offices, and Village shops. The new plant will consist of a pre-fabricated steel module with a field installed roof system. The plant will have a generation room containing three generators and associated mechanical equipment and a control room which will contain programmable automatic paralleling switchgear and SCADA equipment. Other features of the new plant include a fire suppression system, critical grade silencers, and heat recovery. All systems will be operationally complete and shop-tested in Anchorage prior to shipment. Roof installation, electrical interconnection, and commissioning and training will occur onsite in Port Heiden.

The proposed heat recovery system will capture jacket water heat from the diesel generators using a heat exchanger. It will deliver heat to the school and portions of the City shop and Village shop buildings. These three public facilities use approximately 10,000 gallons of diesel annually for heating. Based on preliminary energy calculations, the proposed heat recovery system can displace virtually all of the heating fuel for the connected buildings.

Notice

Notice of the meeting to review the permit was given on April 30, 2019 via e-mail to all villages in the Lake and Peninsula Borough, as per 9.03.070. It was also posted on the Lake and Peninsula Borough website.

Standards of Evaluation

- 09.07.010 Purpose and Intent –
  - complies with the Comprehensive Plan

    No development proposed is in contradiction with the Comprehensive Plan

  - valuable natural resources, watersheds and fish habitat, will be protected

    No natural resources, watersheds or fish habitat is expected to be impacted.

  - record of development

    Application for a permit and the decision by the Commission will create a record of the development.

  - an opportunity for residents to review and comment on development

    The notice of the agenda and notice of the packet was sent to all entities within the Borough. The packet and notice was also posted on the Borough website. The meeting will be public and all citizens have the opportunity to participate either on the teleconference or by writing a comment prior to the meeting.

- 09.07.040 Application Procedure
  - (A) Application for a development permit shall be made in writing, upon forms furnished by the Borough.

    The application has conformed to this requirement.

  - (E) The Commission may conduct a public hearing to allow testimony on the proposed use.

    A public hearing has not been requested. Past practices of the Borough has been to only hold public hearings when the proposed development is met with controversy, or anticipated controversy, or if a public hearing was requested.

  - (G) The Manager may inspect or cause to be inspected all work sites at intervals during periods of construction, operation or reclamation.

    Inspections have not been requested. Past practices of the Borough has been to only inspect work sites when the proposed development is met with controversy, or anticipated controversy, or if an inspection was requested.

- 09.07.050 Approval Criteria and Operational Conditions
  - (A.) To the extent possible, all activities shall be timed and conducted so as to avoid disturbance during critical periods in adjacent anadromous waters.

    No disturbance to the adjacent anadramous waters are expected.

- (B.) All activities shall be conducted in conformance with all state and/or federal permit stipulations and conditions. The applicant should obtain its development permit from the Borough after obtaining applicable state and federal permits.

  It's the applicant's responsibility to be aware of and to apply for any additional permits. The following permits have been identified and requested by the applicant:

  SHPO-NHPA Permit - PENDING. Correspondence attached to this report. Applicant is expecting to have the approval by April 22nd.

  Fire Marshal Permit – PENDING. Design has been submitted to Fire Marshal for review. It is unlikely the plans won't be approved.

- (D.) All activities shall occur harmoniously with other uses occurring or allowed in the general area, as determined by the Commission.

  The site is on an existing gravel pad. This is consistant with existing use.

- (E.) Any site work which is hazardous to the general public shall be reasonably fenced, except where at the determination of the Commission other suitable devices may be used.

  The new plant will consist of a pre-fabricated steel module which will be built in Anchorage. On-site construction of the roof system will be installed this summer. Site work proposed will not include blocking the roadway, and is not expected to be hazardous to the general public.

- (F.) Where a Resource Extraction Activity could result in excavation, placement of fill, grading, removal and disturbance of the topsoil of more than 640 acres of land and will have a Significant Adverse Impact on existing anadromous waters, a development permit shall not be issued by the Commission (Initiative #2 passed 10/4/2011)

  NOT APPLICABLE – This permit will not result in disturbance of more than 640 acres of land.

- <u>09.07.060 Reclamation Plans</u>
  - Reclamation plans may be required for industrial or resource extraction uses.

    NOT APPLICABLE - This permit is not for an industrial or resource extraction

- <u>09.07.070 Surety</u>
  - After receiving notification that the application for a development permit for an industrial or resource extraction use has been approved, but prior to commencement of such operation, the applicant may be required to provide surety to the Borough in a form and amount to be determined by the Commission.

    NOT APPLICABLE - This permit is not for an industrial or resource extraction

CONCLUSIONS OF LAW

Based upon the above Findings of Fact, the Lake and Peninsula Borough staff recommends to the Planning Commission the following Conclusions of Law:

1. That adequate notice was given
2. That the proposed development conforms to the criteria set forth in the Lake and Peninsula Borough Code, Title 9.

DECISION

The Lake and Peninsula Borough Planning Commissioin approves this request for a Development Permit subject to Fire Marshal Permit Approval. All permits issued by LPB are subject to change. If the project will require significant changes to the plans submitted, please notify the Borough immediately.

Applicant shall conduct all activities in conformance with all state and/or federal permit stipulations and conditions (9.07.040 (B)). If additional state and/or federal permits are necessary, the Borough is to be notified immediately.

Work approved under this permit must begin within eighteen (18) months of the date of approval unless a time extension is authorized in writing by the Borough Manager. (9.07.040 (H))

If you have additional questions please contact Danica Wilson at 907-246-3421 or CDC@lakeandpen.com

Gray Stassel Engineering, Inc.

P.O. Box 111405
Anchorage, Alaska 99511-1405
Ph. (907) 349-0100, Fax (907) 349-8001

March 21, 2019

Ms. Kate Conley
Community Development Coordinator
Lake and Peninsula Borough
P.O. Box 495
King Salmon, AK

Subject: **Port Heiden Power System Upgrades – L&PB Development Permit**

Dear Ms. Conley:

Gray Stassel Engineering, Inc., is working with the Alaska Energy Authority (AEA), who in partnership with the Denali Commission (DC), is upgrading the community of Port Heiden's energy infrastructure including diesel power plant replacement, heat recovery system and electrical distribution upgrades. Participants in the project include the City of Port Heiden and the Lake and Peninsula School District.

Please find enclosed Sheets M1 and M3 of the Port Heiden Power System Upgrades project as well as the Lake and Peninsula Development Permit Request. The project is not subject to Corps of Engineers jurisdiction, as no fill will be placed below the high tide line or within wetlands. The project Fire Marshal Permit will be provided under separate cover, when available.

The modular power plant is currently being fabricated in Anchorage. On-site construction will occur this summer. Electrical distribution upgrades will occur in the future, subject to available construction funding.

Please review and call me with any questions at (907) 349-0100.

Sincerely

Gray Stassel Engineering, Inc.

Alison Sterley

Alison Sterley
Cultural Resource Specialist

Attachments: as noted

Lake and Peninsula Borough
P.O. Box 495
King Salmon, Alaska 99613

Telephone: (907) 246-3421
Fax: (907) 246-6602

Development Permit Request

Required Applicant Information:

1. **Property Owner/Applicant:** City of Port Heiden & Lake and Peninsula School Dis
   Mailing Address: POB 49050, Port Heiden, AK 99549
   Phone: 907-837-2209 FAX 907-837-2248

2. **Legal Description:** Subdivision Name, USS Survey No. Lot Lease No. _____
   Lot 3 ANCSA 14(C), Plat 92-02
   Lot # _____ Block # _____
   Nearest Community Property is located to: **Port Heiden**
   Street Address or Road Name, Property is located on: **See drawings attached**

3. **Description of Proposed Project:** **Energy infrastructure upgrades including power plant replacement, new heat recovery installation and electric distribution system replacement.**

4. Provide drawings of proposed actions i.e. proposed road to be built, proposed dock, proposed building site, or proposed runway improvement, or proposed construction site of building, etc. Drawings may be hand drawn but must be legible.

5. Provide a copy of the approved Plat or US Survey as attachment or aerial photography using borough community profile mapping available at: www.lakeandpen.com see attached Community Profile
6. Approximate square footage to be excavated or disturbance of topsoil: 1500 sq feet
7. Approximate yards of fill: 200 cubic yards Type fill local pit run gravel
   Purpose of fill: power plant module foundation, and arctic piping backfill
8. Is project (check appropriate blocks) Archeological Survey ☐ Commercial Use ☑
   Industrial Use ☐ Resource Extraction ☐ Private Home ☐ Other ☐
9. *Is the proposed project in a Special Flood Hazard Area (Zones A, AE, A1-30, AH, or AO)?* ☐ *Yes* ☑ *No If yes, complete 10-13. If no, go to question # 18*
10. *Per the floodplain map, what is the zone and panel number of the area of the proposed development? Zone* N/A *Panel Number* _____
11. *Is the proposed development in an identified floodway? Yes* ☐ *No* ☑
12. *If yes to #11, is a "No Rise Certification" with supporting data attached? Yes* ☐ *No* ☐
13. *Complete for new structures and building sites*
    a. *Base Flood Elevation at the site:* N/A *feet NVGD*
    b. *Required lowest flood elevation (including basement):* _____ *feet NVGD*
    c. *Elevation to which all attendant utilities, including all heating and electrical equipment will be protected from flood damage:* _____ *feet NVGD*
14. *Complete for alterations, additions, or improvements to existing structures*
    a. *What is the estimated market value of the existing structure?* N/A
    b. *What is the cost of the proposed structure?* N/A
    c. *If the cost of the proposed construction is greater than 50% of the market value of the structure, then the substantial improvement provisions shall applu*
15. *Complete for non-residential floodproofed construction*
    a. *Type of floodproofing method:* N/A
    b. *The required floodproofing elevation is* _____ *feet NVGD*
    c. *Floodproofing certification by a registered engineer is attached: Yes* ☐ *No* ☐
16. *Complete for subdivisions*
    a. *Will the subidivion contain 50 lots or 5 acres? Yes* ☐ *No* ☐
    b. *If yes, does the plat clearly identify base flood elevations Yes* ☐ *No* ☐

c. *Are the 100 Year Floodplain and Floodway delineated on the site plan?* *Yes* ☐ *No* ☑ Corps of Engineers community Floodplain and Erosion Data indicates no known flooding and no known high water marks in the community

17. Is project within 100 feet of an anadramous stream? Yes ☐ No ☑

18. Is project below mean high water or will it cross a stream or wetlands? Yes ☐ No ☑

Please Explain: _____

19. Reclamation Plans Attached: Yes ☐ No ☐ Not required ☑

20. All other Permits Approved: Yes ☐ No ☐ Explain: (attach other permits)

SHPO-NHPA pending; FWS-Not likely to adversely affect; Fire Marshal permit pending

I affirm that the above information and all attachments are true to the best of my knowledge.

Susan Steely 3/21/19

Signature of Property Owner or Authorized Agent Date

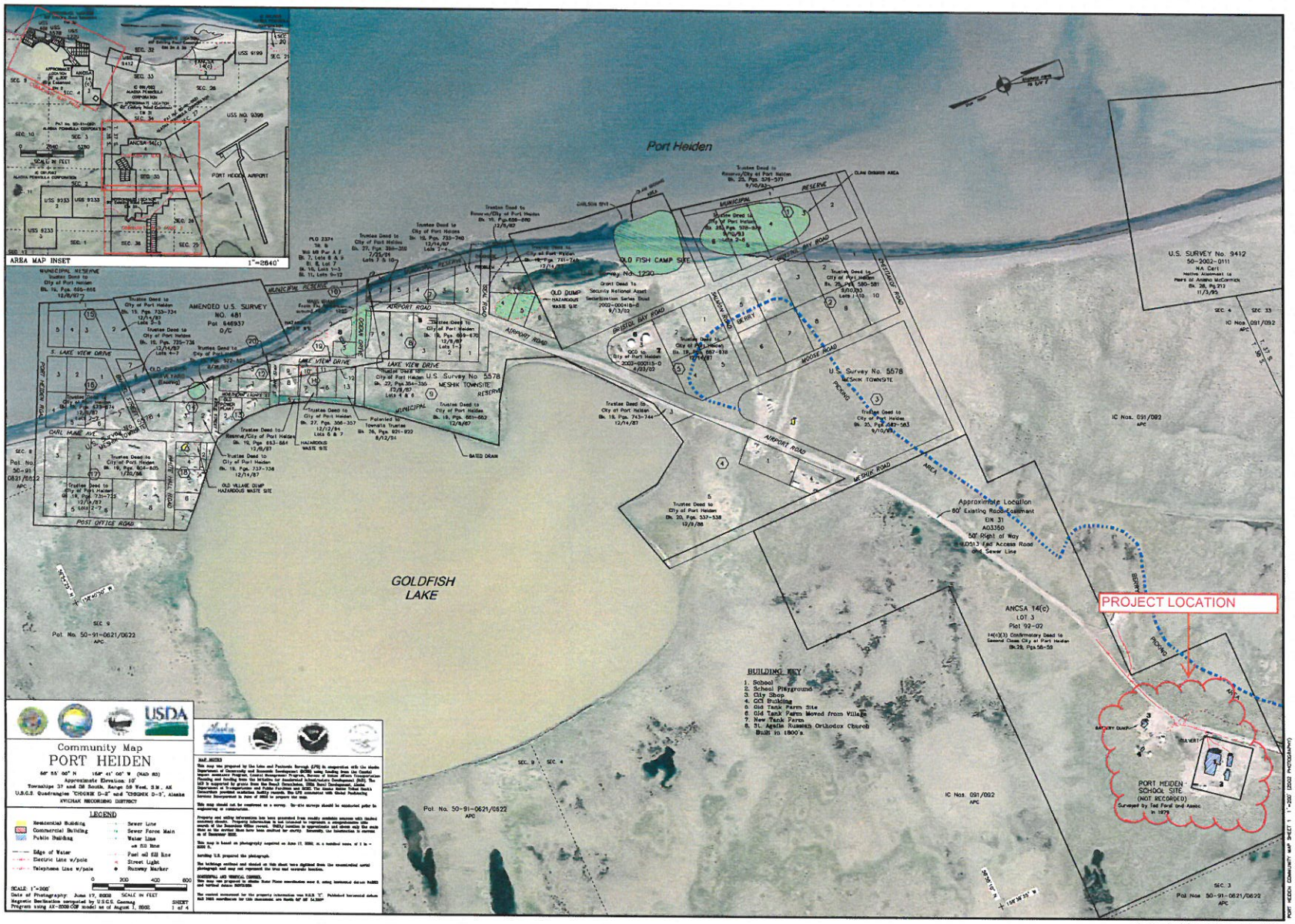
Received By Date

Application fee is $100 to be paid at time application submitted. Please make check payable to Lake and Peninsula Borough, PO Box 495, King Salmon, AK 99613. (Note: Cities and Village/Tribal Councils are not charged this application fee).

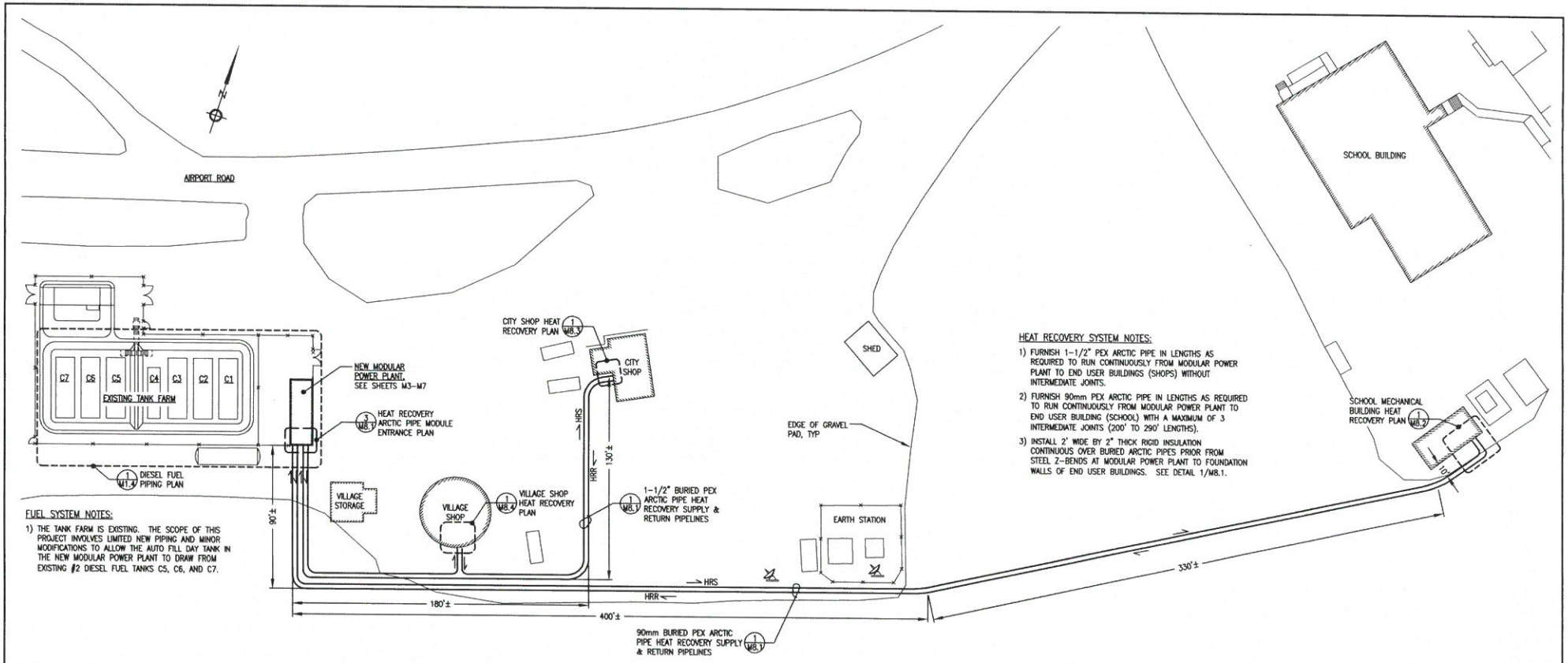
Paid By: Check_____ Number _____

Approved By Date

Form Developed 2-01-2010



Port Heiden Sheet 1-2002



FUEL SYSTEM NOTES:

1) THE TANK FARM IS EXISTING. THE SCOPE OF THIS PROJECT INVOLVES LIMITED NEW PIPING AND MINOR MODIFICATIONS TO ALLOW THE AUTO FILL DAY TANK IN THE NEW MODULAR POWER PLANT TO DRAW FROM EXISTING #2 DIESEL FUEL TANKS C5, C6, AND C7.

HEAT RECOVERY SYSTEM NOTES:

1) FURNISH 1-1/2" PEX ARCTIC PIPE IN LENGTHS AS REQUIRED TO RUN CONTINUOUSLY FROM MODULAR POWER PLANT TO END USER BUILDINGS (SHOPS) WITHOUT INTERMEDIATE JOINTS.
2) FURNISH 90mm PEX ARCTIC PIPE IN LENGTHS AS REQUIRED TO RUN CONTINUOUSLY FROM MODULAR POWER PLANT TO END USER BUILDING (SCHOOL) WITH A MAXIMUM OF 3 INTERMEDIATE JOINTS (200' TO 290' LENGTHS).
3) INSTALL 2' WIDE BY 2" THICK RIGID INSULATION CONTINUOUS OVER BURIED ARCTIC PIPES PRIOR FROM STEEL Z-BENDS AT MODULAR POWER PLANT TO FOUNDATION WALLS OF END USER BUILDINGS. SEE DETAIL 1/M8.1.

1/M1 NEW POWER PLANT AREA WORK PLAN
1"=30'

95% DESIGN
NOT FOR
CONSTRUCTION

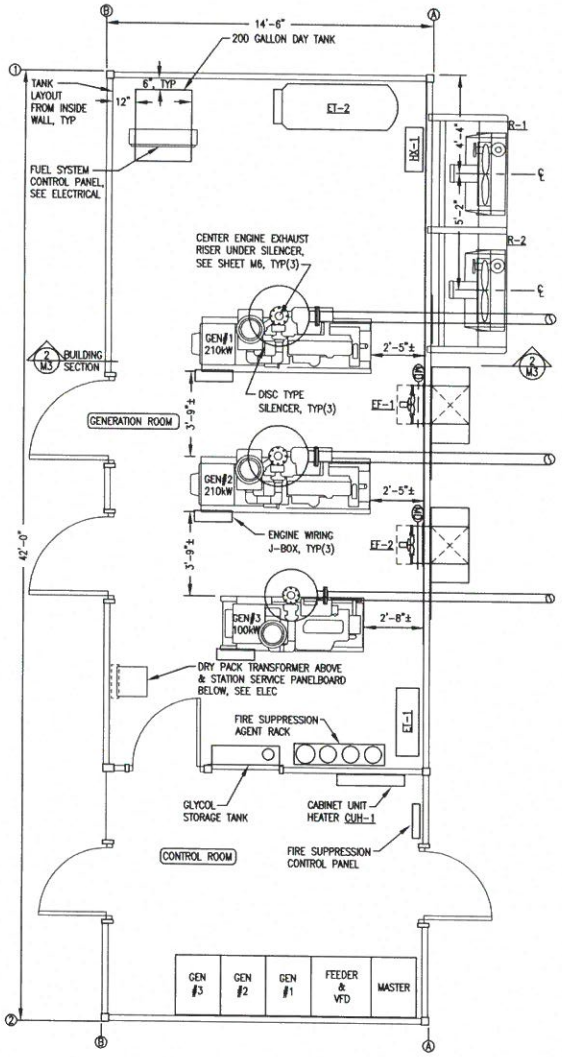
ALASKA ENERGY AUTHORITY

PROJECT: PORT HEIDEN RURAL POWER SYSTEM POWER PLANT UPGRADE

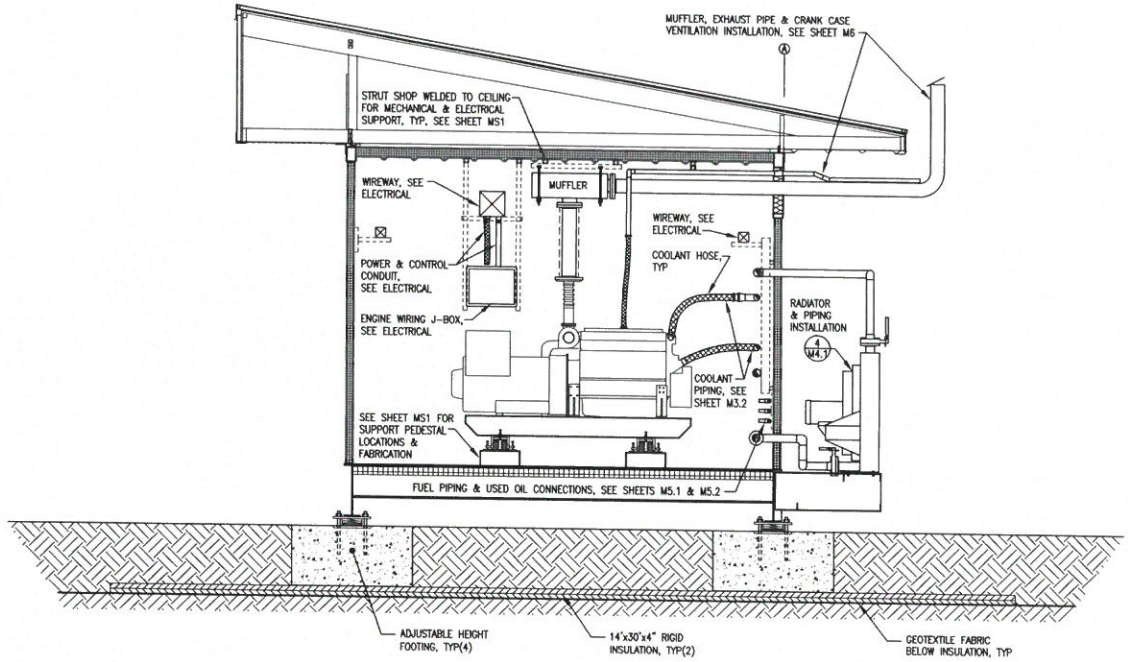
TITLE: NEW POWER PLANT AREA WORK PLAN

Gray Stassel Engineering, Inc.
P.O. 111405, Anchorage, AK 99511 (907)349-0100

DRAWN BY: JTD	SCALE: AS NOTED
DESIGNED BY: BCG	DATE: 3/11/19
FILE NAME: PTH PPU M1	SHEET: M1 OF 1
PROJECT NUMBER:	



1 M3 EQUIPMENT LAYOUT PLAN
3/8"=1'-0"



2 M3 BUILDING SECTION/GENERATOR #1/#2 INSTALLATION
1/2"=1'-0"

CONCEPT DESIGN NOT FOR CONSTRUCTION

ALASKA ENERGY AUTHORITY

PROJECT: PORT HEIDEN RURAL POWER SYSTEM POWER PLANT UPGRADE

TITLE: EQUIPMENT LAYOUT PLAN, SECTION, & DETAILS

Gray Stassel Engineering, Inc.
P.O. 111405, Anchorage, AK 99511 (907)349-0100

DRAWN BY: JTD	SCALE: NO SCALE
DESIGNED BY: BCG	DATE: 12/7/18
FILE NAME:	SHEET: M3 OF
PROJECT NUMBER:	