Pebble Limited Partnership (PLP) seeks authorization from the U.S. Coast Guard (Coast Guard) to construct a bridge across the Gibraltar River (local name, no official USGS or State name listed) in southwest Alaska as part of its proposed Pebble Project. This permit application was formatted to follow the Coast Guard Application Template (3/17) and the Coast Guard Bridge Permit Application Guide, COMDTPUB P1651.3D (July 2016).

A. ADMINISTRATIVE AND NAVIGATION INFORMATION

1. Application Date: December 5th, 2019
   a. Applicant information:
      1) Name: Pebble Limited Partnership (PLP)
      2) Address: 3201 C St., Suite 505, Anchorage, AK 99503
      3) Telephone number: (907) 339-2600
      4) Email address: jamesfueg@pebblepartnership.com

   b. Consultant/Agent information: Not Applicable
      1) Name (company or individual):
      2) Address:
      3) Telephone number:
      4) Email address:
      5) Letter authorizing a consultant/agent to obtain permits on behalf of the applicant included: □ Yes □ No

   c. Name of Proposed Bridge(s): Gibraltar River Bridge
      1) Name of the waterway that the bridge(s) would cross: Gibraltar River
      2) Number of miles above the mouth of the waterway where the bridge(s) would be located and provide latitude and longitude coordinates (degree/minute/second) at centerline of navigation channel (contact the local Coast Guard Bridge Office for guidance): The bridge would be located approximately 2.4 miles above the mouth of the Gibraltar River where it discharges into Iliamna Lake. The navigation centerline at the bridge site is at 59° 25’ 00” N Latitude, 154° 49’ 15” E Longitude.
      3) City or town, county/parish, and state where the bridge(s) would be located at, near, or between: The proposed bridge would be located about 2 miles southwest of the community of Kokhanok, Alaska.
4) Brief description of project to include type of bridge(s) proposed [fixed or movable (drawbridge, bascule, vertical lift, swing span, pontoon), highway, railway, pedestrian, pipeline] and existing bridge(s) at project site, if applicable:

**Project Overview**
PLP is proposing to develop the Pebble copper-gold-molybdenum porphyry deposit as a surface mine in southwest Alaska. The Project consists of four primary project elements: the mine site, the Amakdedori Port, the transportation corridor, and the natural gas pipeline. The construction of the bridge across the Gibraltar River will provide access from the port site on Cook Inlet to a lake ferry terminal near Kokhanok on Iliamna Lake, for the transportation of supplies to the mine site and produced concentrate to the Amakdedori Port. A 12-inch diameter natural gas pipeline will be attached to the bridge structure at a point above the lowest bridge beam so as not to affect navigational clearances of the proposed bridge. Included below is a typical cross section detail of the bridge showing position of the pipeline in relation to the bridge structure.

![Gibraltar River Bridge Cross Section with Pipe Rack](image)

The bridge will be built in conjunction with the proposed access road to the Kokhanok ferry terminal from the port site at Amakdedori on Cook Inlet.

**Bridge Site Description**
At the proposed bridge location, the Gibraltar River is structurally controlled with a single channel having a width of approximately 100 feet at OHW. Width of the river floodplain is approximately 200 feet. The floodplain width is historically stable due to being incised in bedrock. The channel bed appears stable and is dominated by cobbles and boulders. Stream gradient at the bridge location is 0.12%. Bedrock outcrops above the OHWM on both sides of the river. Only small quantities of sediment would be expected during runoff events. The river banks are characterized by a mix of alluvial gravel with boulders and sand. Steep slopes exist on both side
of the river to an elevation of 30 to 70 feet above OHW. Immediately above OHW the slopes are well vegetated with moss, brush and trees. The proposed bridge will cross the river channel at a skew angle of 35 degrees. No piling or other support structure will be placed below the current OHWM.

**Type of Bridge**
The proposed bridge will have three spans with a positive skew of 35 degrees. The bridge will be two lanes (30 feet between rails) and have a total length of 300 feet. Span lengths are 40 feet, 127 feet and 137 feet. The bridge structure will include a concrete deck on box girders or I-beams supported by steel pile bent piers with the piling drilled and set into bedrock below OHW.

5) Drawbridge Regulations (if applicable): **Not Applicable**

6) Date of plans and number of plan sheets: **Conceptual plans dated December 5, 2019. 4 plan sheets.**

7) Estimated cost of bridge(s) and approaches:
   a) Provide the estimated cost of the bridge(s) as proposed, with vertical and horizontal navigational clearances: **$12,000,000**
   b) Provide the estimated cost of a low-level bridge(s) on the same alignment with only sufficient clearance to pass high water while meeting the intended purpose and need: **$12,000,000**

8) Type and source of project funding (federal, state, private, etc.): **Private**

9) Proposed project timeline: **Bridge construction is anticipated to begin within 5 years of receipt of a Section 9 bridge permit, pending receipt of State permits required for project implementation. Bridge construction is expected to take up to two years to complete.**

10) Other Federal actions: **The US Army Corps of Engineers (USACE) is the lead agency for completion of the Pebble Project Environmental Impact Statement (EIS) and will issue a Section 404/10 permit for the Project, subject to a Record of Decision. The Bureau of Safety and Environmental Enforcement will grant a pipeline right-of-way in the Outer Continental Shelf subject to a Record of Decision. USACE is conducting Section 106 consultation, Endangered Species Act consultation with the US Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS), and Magnuson-Stevens Essential Fish Habitat consultation with NMFS. Multiple State of Alaska permits and Lake and Peninsula Borough permits will also be required.**

   d. Legal authority for proposed action:
1) If not the owner of the existing bridge(s) that is being replaced or modified, include a signed statement from the bridge owner authorizing the removal or modification work and cite its location: Not Applicable

2) For privately owned bridges, cite authorization for right to build (e.g. deed or easement from the property owner authorizing the proposed construction or modification work): PLP has been granted a right-of-way for the proposed road and associated infrastructure across Alaska Peninsula Corporation (APC) lands. APC is the surface estate owner for the uplands on both sides of the bridge crossing. PLP will apply to the State of Alaska for an easement to cross the submerged lands and a miscellaneous land use permit to install bridge support piles within the river channel.

e. International bridges (if applicable): Not Applicable

1) Cite the International Bridge Act of 1972, or a copy of the Special Act of Congress if constructed prior to 1972, as the legislative authority for international bridge construction:

2) For permits issued under the International Bridge Act of 1972, cite Presidential approval, via the State Department, included with the application as required:

   NOTE: Please include a copy of State Department approval for international bridges in the application package for a Coast Guard bridge permit.

f. Dimensions of the proposed bridge(s):

1) Vertical clearance as indicated on plan sheets: 50 feet above OHW (Minimum)

2) Horizontal clearance as indicated on plan sheets: 130 feet between piers

3) Length of bridge(s) project: 300 feet, abutment to abutment

   If no prior permit exists, and this is a modification or replacement project, is the length the same as the old bridge: Not Applicable

   If not, what is the difference:

4) Width of bridge(s) project: 35 feet

   If no prior permit exists, and this is a modification or replacement project, is the width the same as the old bridge: Not Applicable

   If not, what is the difference:

5) Depth of the waterway at project site at MHW if tidal or OHW if non-tidal, using the appropriate elevation and datum (e.g., NGVD 1929, NAVD 1988, etc.):
   Surface elev. OHW 76 feet amsl (NAVD88). Depth: 0-3 feet.

6) Width of waterway at project site at OHW if non-tidal: 100 ft
7) Significant effect on flood heights and associated drift, if any, that could cause a navigation hazard: No significant effect on flood height. Minimal drift accumulation due to limited flood height and drift as a result of crossing being only 3.5 miles downriver of Gibraltar Lake.

g. Temporary Bridge(s) dimensions (vertical clearance, horizontal clearance, length and width), if applicable: Vertical Clearance: 12 - 40 feet, Horizontal Clearance: 27 ft, Width: 24 ft., Length: 300 ft +/-.

h. [Include the following language, if applicable] Enclosed are the waterway data requirements as determined by the Coast Guard District Bridge Office. If a navigation impact report was conducted please cite location(s) in the case file, list title and date of document as appropriate: Not Applicable.

Navigational Uses of the Gibraltar River

River depths under normal flow conditions preclude motorized use. Anecdotal information is that typical water depths are approximately 1-2 feet under normal conditions, with occasional pools of 5-10 feet. The river is forded using 4-wheel all-terrain vehicles at multiple locations. The full length of the river shoreline and the Gibraltar Lake shoreline consists of private land belonging to the Alaska Peninsula Corporation (APC). APC does not allow unauthorized access across their lands and actively discourages motorized use of the river at all times. The only reported use is by people floating the river using tubes and inflatable rafts.

APC has provided a concession to a single operator for guided fishing use of the river. This activity is limited to wading and float supported sport fishing activities. No other commercial activity makes use of the river. The local community does use the river for subsistence harvest activities, but access is primarily across country using 4-wheel all-terrain vehicles.

i. Existing bridge(s) if applicable: Not Applicable

1) Name of bridge(s):

2) Type of bridge(s) and number of lanes (e.g., fixed or moveable (drawbridge, bascule, vertical lift, swing span, pontoon, etc.); highway, railway, pedestrian, pipeline):

3) For movable spans identify the existing drawbridge operating regulation governing the structure (e.g. 33 CFR 117.XXX, if applicable):

When applicable, identify if the local Coast Guard Bridge Office identified that modification of an existing drawbridge requires revision or removal of the existing regulation (e.g. if the bridge project involves replacing the existing drawbridge with a fixed bridge):

NOTE: If the waterway is not already identified in 117 Subpart B, please
note if an operating schedule other than open on demand is being considered.

4) Latitude and longitude coordinates (degree/minute/second) at centerline of the bridge(s):

5) Dimensions of the existing bridge(s):
   a) Vertical clearance(s) as indicated on previous plan sheets (include both the open and closed-to-navigation clearances for movable spans). [The proposed and existing vertical clearances must be compared using the same datums. This may require surveying the existing bridge]:
   b) Horizontal clearance as indicated on previous plan sheets:
   c) Length of existing bridge(s):
   d) Width of existing bridge(s):

6) Owner of the existing bridge(s):

j. Discuss construction methodology, if known, and removal of existing bridge(s), as applicable: **Not Applicable**

   1) Discuss proposed construction methodology and restrictions:

   2) Discuss maintenance of land traffic during construction activities:

   3) Discuss extent of removal of existing bridge(s) (e.g. in its entirety, two feet below the mud line, down to or below the natural bottom of the waterway or to a specific elevation), time needed for removal, etc.:

   4) Discuss demolition methodology:

   **NOTE:** In the interest of navigational safety, the Coast Guard must make the final decision concerning the extent of bridge(s) removal.

k. Other agencies with jurisdiction over the proposed project:

   1) Agency: **USACE, Alaska Department of Natural Resources, Alaska Department of Fish and Game, Alaska Department of Environmental Conservation, USFWS, NMFS, and the Lake and Peninsula Borough.**

   2) Permits or type of approvals required for the project: **Section 404/10 permit and 401 Certification, Miscellaneous Land Use Permit (for pilings), Public Easement (for bridge across submerged lands), Rights-of-way (ROW) for the road and pipeline, Title 16 Fish Habitat Permit, APDES Construction General Permit, Lake and Peninsula Borough Large Project Authorization.**
B. ENVIRONMENTAL INFORMATION:

1. National Environmental Policy Act

   Lead Federal Agency: USACE


   a. Type of environmental document.

      ☑️ Environmental Impact Statement/Record of Decision (EIS/ROD)

      Cite location(s) in the application package:

      ☑️ Environmental Assessment/Finding of No Significant Impact (EA/FONSI)

      Cite location(s) in the application package:

      ☐ Categorical Exclusion (CE)

      Cite location(s) in the application package:

   b. Has the environmental document been modified, reevaluated, supplemented or rescinded for the proposed action?

      ☑️ Yes ☐ No

      If yes, cite location(s) in the application package:

2. Environmental Effects Abroad

   a. Does the proposed project involve a bridge connection to Canada or Mexico?

      ☐ Yes ☑️ No

      If yes, cite location(s) in NEPA document where environmental effects abroad are described:

3. Clean Water Act

   a. Has a Water Quality Certification (WQC), waiver or statement that the WQC is not required been obtained from the appropriate federal, interstate, or state agency?

      ☑️ Yes ☐ No

      Will be provided subject to the Record of Decision.
**NOTE:** The USCG will not accept an application package as complete if a WQC, waiver, or statement from the appropriate regulatory body has not been obtained.

b. Name of the Federal, State or Tribal certifying agency and point of contact with phone and email address, if available: **Alaska Department of Environmental Conservation (Jim Rypkema, Program Manager, Alaska Department of Environmental Conservation, (907) 334-2288, james.rypkema@alaska.gov)**

c. If the WQC is granted under a Programmatic Agreement (e.g., U.S. Army Corps of Engineers (USACE) Nationwide Permit (NWP) include the date of the NWP, the type of NWP (14, 15, etc.) and the NWP number and title: **Not applicable**

d. For permit amendment actions, include a new WQC or a written confirmation from the certifying agency that the existing WQC has been reissued/renewed or is still valid for the proposed action.

☐ New WQC Attached
☐ Written Confirmation of WQC validity attached

4. **Wetlands**

   a. Is the proposed project located in or adjacent to a wetland?

     ☒ Yes ☐ No

   b. If yes, what is the acreage of wetlands that will be permanently and temporarily impacted by the proposed project? **Approximately 2226 acres of jurisdictional wetlands or other jurisdictional waters will be permanently impacted by the Pebble Project. There are no permanent impacts to wetlands resulting from the proposed Gibraltar River Bridge structure. Construction of the temporary bridge crossing will result in 0.2 acres of temporary impact to wetlands associated with the approach road on the west side of the river.**

     Include USACE permit (nationwide authorization or individual), if required, and cite where wetland mitigation measures are described in the application package: **PLP applied for an Individual Permit (POA-2017-271). The Public Notice of Application for Permit (March 1, 2019) is available at https://www.poa.usace.army.mil/LinkClick.aspx?fileticket=5XZkD2R1iVY%3d&portalid=34**

     **The Department of Army Permit will be provided subject to the Record of Decision.**

5. **Coastal Zone Management Act** - The Coastal Zone Management Act (CZMA) of 1972 (16 U.S.C. § 1451), as amended, and its implementing regulations (15 CFR Part 930), requires all projects located within the designated coastal zone of a state to be consistent with the State's federally approved CZM plan (CZMP).

   a. Is the project located in a state that has an approved Coastal Zone Management Act
Plan (CZMP)?

☐ Yes  ☒ No

b. If yes, is the project within an area included in the federally approved CZMP?

☐ Yes  ☐ No

c. If yes, has the State specifically excluded this activity from its federally approved CZMP?

☐ Yes  ☐ No

Include State CZM concurrence/with consistency certification and cite location(s) in the application package:

6. **Floodplains**

a. Is the proposed project located in the base floodplain? An encroachment into the base floodplain does not exist when only the piers, pilings, or pile bents are located in the floodplain.

☐ Yes  ☒ No

b. Is there a significant encroachment (constituting a considerable probability of loss of human life; likely future damage associated with the encroachment that could be substantial in cost or extent; or a notable adverse impact on natural and beneficial floodplain values) into the floodplain?

☐ Yes  ☒ No

c. If yes, provide documentation and cite location(s) in the application package:

7. **Wild and Scenic Rivers**

a. Is the river involved in the proposed bridge project a designated Wild and Scenic River?

☐ Yes  ☒ No

b. If yes, attach correspondence with the river-administering agency and cite location(s) in the application package:

8. **Coastal Barrier Resources Act**

a. Does the proposed project connect to a unit of the Coastal Barrier Resources System?

☐ Yes  ☒ No

b. If yes, and the project is federally funded, cite location of Section 6 exception in the
application package and any correspondence with the FWS:

9. **Land and Water Conservation Fund Act**
   a. Does the proposed project involve a conversion of land or facilities funded under Section 6(f) of the Land and Water Conservation Fund Act?
      
      ☐ Yes ☒ No
   
   b. If yes, include correspondence with the NPS and authorization from the Secretary of the Interior for that conversion and cite location(s) in the application package:

10. **National Marine Sanctuaries Act**
   a. Is the proposed project in or adjacent to a National Marine Sanctuary?
      
      ☐ Yes ☒ No
   
   b. Is the proposed bridge(s) likely to destroy, cause loss of, or injure a resource of a National Marine Sanctuary? (If no, provide evidence)
      
      ☐ Yes ☒ No
   
   c. If yes, include evidence of consultation with Office of National Marine Sanctuaries and the agency’s findings/conditions and cite location(s) in the application package:

11. **Marine Protected Areas**
   a. Is the proposed project in or adjacent to a Marine Protected Area (MPA) as defined in section 4(d) of Executive Order 13158?
      
      ☐ Yes ☒ No
   
   b. If yes, will the proposed project affect the natural or cultural resources that are protected by the MPA? (If no, provide evidence)
      
      ☐ Yes ☒ No
   
   c. If yes, include evidence of correspondence with MPA Center, if applicable, and cite location(s) in the application package:

12. **Endangered Species Act**
   a. Are there federally designated threatened or endangered species and/or critical habitat in the area that the proposed project is located? (If no, provide evidence)
      
      ☒ Yes ☐ No

      **ESA Consultation for the Pebble Project has been conducted. The action area includes listed species and critical habitat, however these are located in Cook**
Inlet and not in the vicinity of the proposed bridge. The Draft Biological Assessments (BAs) are included with the Draft EIS (DEIS) available at https://pebbleprojecteis.com.

b. May the proposed project affect federally designated threatened or endangered species and/or critical habitat? (If no, provide evidence)

☑ Yes  ☐ No

ESA Consultation for the Pebble Project has been conducted. The action area includes listed species and critical habitat, however these are located in Cook Inlet and not in the vicinity of the proposed bridge. The Draft BAs are included with the DEIS available at https://pebbleprojecteis.com.

c. If yes, was there formal or informal consultation with the United States Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS)?

☑ Formal consultation

☐ Informal consultation

d. If formal, provide date(s) and attach biological assessment, biological opinion, and any other relevant correspondence and cite location(s) in application package:

These final documents will be provided with the Pebble Project Final EIS (FEIS) and ROD which will be available at https://pebbleprojecteis.com.

e. If informal, provide dates and include correspondence or documented phone conversations with and from USFWS/NMFS and cite location(s) in the application package:

f. Include Biological Assessment/Biological Evaluation, as appropriate. The BAs completed for the Project will be available at https://pebbleprojecteis.com.

13. Fish and Wildlife Coordination Act

a. Include any correspondence with USFWS and the relevant state wildlife agency regarding Fish and Wildlife Coordination Act coordination and cite location(s) in the application package:

USFWS and the Alaska Department of Fish and Game (ADF&G) are cooperating agencies for the Pebble Project EIS which included review of the bridge crossing.

14. Magnuson-Stevens Fishery Conservation and Management Act

a. Will the proposed project likely adversely affect designated Essential Fish Habitats (EFH) as defined in the Magnuson-Stevens Act? (If no, provide evidence)

☑ Yes  ☐ No
The proposed project will affect EFH as described in the Draft EFH Assessment available at [https://pebbleprojecteis.com](https://pebbleprojecteis.com). Habitat disturbance associated with the construction of the road and bridge infrastructure ranges from temporary to short term and the degree of impact is characterized as low (Draft EFH Assessment, Section 5.1.2.1.1).

b. Identify location of EFH assessment and relevant correspondence with NMFS in the application package:

The Draft EFH assessment is included with the DEIS available at [https://pebbleprojecteis.com](https://pebbleprojecteis.com). The Final EFH assessment will be included with the FEIS.

15. **Marine Mammal Protection Act**

   a. Does the proposed project involve a “take” of marine mammals as defined in the Marine Mammal Protection Act?

   ☑ Yes  ☐ No

   The proposed project may involve a “take” of marine mammals in Cook Inlet waters. However, this is not in the vicinity of the proposed bridge.

   b. If yes, include the incidental harassment authorization or letter of authorization from NMFS and any relevant correspondence and cite location(s) in the application package:

   Due to the timeline of the proposed project PLP will apply for any authorization’s required under the Marine Mammal Protection Act closer to the commencement of construction.

16. **Migratory Bird Treaty Act**

   a. Does the proposed project involve a potential take of migratory birds as defined in the Migratory Bird Treaty Act? (If no, provide evidence)

   ☐ Yes  ☑ No

   Vegetation clearing activities would follow, to the maximum extent practicable, the USFWS Recommended Time Periods for Avoiding Vegetation Clearing in Alaska ([http://www.dot.state.ak.us/sereg/projects/sitka_katlianbayroad/assets/1-vegetation_clearing.pdf](http://www.dot.state.ak.us/sereg/projects/sitka_katlianbayroad/assets/1-vegetation_clearing.pdf)). If clearing outside of recommended time periods becomes necessary, PLP will coordinate with the USFWS for guidance closer to the commencement of construction.

   b. If yes, is a permit required?

   ☐ Yes  ☐ No  Not Applicable

   c. If a permit is required, include it and any correspondence with USFWS and cite location(s) in the application package:
17. **Bald and Golden Eagle Protection Act**

a. May the proposed project take or disturb bald or golden eagles (including nests) as defined in the Bald and Golden Eagle Protection Act? (If no, provide evidence)

☐ Yes ☒ No

The proposed bridge crossing was surveyed for nests by ABR Inc. in May and July of 2018 and no nests were located within 0.5 miles of the proposed crossing (ABR Inc., Pebble Project Eagle Nest Distribution Near the Proposed Port Access Road Bridge Crossing of the Gibraltar River, December 5th, 2019, attached). PLP will conduct additional eagle nest survey work prior to construction to confirm that no new nests exist.

b. If yes, is a permit required?

☐ Yes ☐ No ☒ Not Applicable

c. If a permit is required, include it and any correspondence with USFWS and cite location(s) in the application package.

18. **Invasive Species**

a. Does the proposed project have potential to introduce or foster the spread of invasive species?

☒ Yes ☐ No

b. If yes, cite the document that describes measures that will be taken to minimize this risk and location(s) in the application package:

The assessment of risk from invasive species risk and proposed mitigation measures are described in the Pebble Project EIS. The EIS and related NEPA documents are available at [https://pebbleprojecteis.com/](https://pebbleprojecteis.com/). PLP has also submitted a preliminary Invasive Species Management Plan in support of the EIS (Request For Information 106) that is available at [https://pebbleprojecteis.com/documents/library](https://pebbleprojecteis.com/documents/library).

19. **Section 106**

a. Does the proposed project have potential to impact properties (including submerged abandoned shipwrecks) listed in or eligible for inclusion in the National Register of Historic Places?

☒ Yes ☐ No

Section 106 Consultation is being conducted for the Pebble Project. The State Historic Preservation Officer and the Advisory Council on Historic Preservation are participating in the development of a Programmatic Agreement that will be in place prior to a Record of Decision. Archaeological survey work for the
proposed bridge site was conducted in the summer of 2019 and evidence of use and cultural artifacts in proximity to the bridge site was identified. Additional detail are available to the cooperating agencies through USACE.

b. If yes, provide evidence of consultation with the State Historic Preservation Officer (and the Advisory Council on Historic Preservation, if applicable) and cite location(s) in the application package. Include:

- ☒ Copies of the correspondence  \textit{Section 106 Process is ongoing}
- ☒ Memorandum of Agreement  \textit{Section 106 Process is ongoing}
- ☐ No effect determination

c. For projects involving Federal lands only provide:

- ☐ Archeological clearances
- ☐ Archeological reports

20. \textbf{Clean Air Act}

a. Does the proposed project occur in an area of nonattainment or maintenance for any criteria pollutant?

- ☐ Yes  ☒ No

b. If project occurs in a nonattainment or maintenance area, do the transportation or general conformity regulations, or both, apply?

- ☐ General  ☐ Transportation  \textit{(Not Applicable)}

c. Is the project exempt from a transportation conformity analysis for any of the reasons listed in 40 CFR § 93.126? Which reason?

- ☐ Yes  ☐ No  Reason: \textit{(Not Applicable)}

d. Is the project exempt from a general conformity analysis for any of the reasons listed in 40 CFR § 93.153(c)?

- ☐ Yes  ☐ No  \textit{(Not Applicable)}

e. If general conformity applies, is the project listed in a conforming State Implementation Plan (SIP)?

- ☐ Yes  ☐ No  \textit{(Not Applicable)}

f. If a general conformity determination was prepared, include the draft and final determinations and any relevant correspondence and cite their location(s) in the application package:
g. If transportation conformity applies, is the project listed in a conforming SIP, Transportation Improvement Program (TIP), Regional Transportation Plan (RTP), or Federal Implementation Plan (FIP)?

☐ Yes    ☐ No (Not Applicable)

h. If yes, cite location of information regarding listing in the application package:

i. If transportation conformity applies, does the project contribute to any new localized CO, PM\textsubscript{10}, or PM\textsubscript{2.5} violations or increase the frequency or severity or any existing violations of the same?

☐ Yes    ☐ No Not Applicable

j. If yes, cite location of information in the application package:

21. Actions to Address Environmental Justice in Minority or Low-Income Populations

a. Does the proposed project involve disproportionate adverse impacts to minority and/or low-income populations as defined in Executive Order 12898?

☒ Yes    ☐ No

The DEIS (https://pebbleprojecteis.com) addresses the requirements of Executive Order 12898 in Section 4.4 Environmental Justice and identifies the potential for impacts to socioeconomics, subsistence, and health and safety as well as describing mitigation measures to address potential impacts. Mitigation is further addressed in Chapter 5 of the DEIS.

b. If yes, include the analysis describing the impacts and cite location(s) in the application package:

The DEIS addresses the requirements of Executive Order 12898 in Section 4.4 Environmental Justice. Specifically, the DEIS addresses the potential impacts of the project on the needs and welfare of the people (socioeconomics) in Section 4.4.2.1, subsistence in Section 4.4.2.2, and health and safety in Section 4.4.2.3.

c. If yes, cite the location in the application package that describes measures to be taken to reduce those impacts:

The DEIS describes mitigation measures to reduce potential impacts of the project on the needs and welfare of the people (socioeconomics) in Section 4.4.2.1, subsistence in Section 4.4.2.2, and health and safety in Section 4.4.2.3. Mitigation is further addressed in Chapter 5 of the DEIS.

22. Hazardous Materials, Substances or Wastes

a. Does the proposed project involve or is it located near a Superfund site or any site regulated under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA) or State
law regulating hazardous materials, substances or wastes?

☐ Yes  ☒ No

The proposed project is not located near any identified Superfund or CERCLA regulated sites (https://www.epa.gov/superfund/search-superfund-sites-where-you-live#map) as of 12/4/2019.

No RCRA regulated sites are identified in zip codes 99606 or 99640 (https://www3.epa.gov/enviro/facts/rcrainfo/search.html) as of 12/4/2019.

No open contaminated sites located in proximity to the proposed project are identified in the Alaska Department of Environmental Conservation Contaminated Sites Database (https://dec.alaska.gov/Applications/SPAR/PublicMVC/CSP/Search/) as of 12/4/2019.

b. If yes, cite the location(s) in the NEPA document where hazardous materials, substances or wastes are discussed:

See Enclosure [   ] for plan sheets.

See Enclosure [   ] for Waterway Data Requirements

See Enclosure [   ] for Section 106 consultation
ENCLOSURE 2.

WATERWAY DATA REQUIREMENTS (as required by the Coast Guard, include the below information as an attachment to the application letter per Appendix A of the BPAG)

A. **Means of Data Collection:** See BPAG for additional information

B. **Present governing bridge(s) or aerial structure(s) on the waterway:**

1. Identify all bridges upstream and downstream of the proposed bridge site and their existing horizontal and vertical clearances to determine the existing minimum horizontal and vertical clearances (including overhead transmission line clearances). Provide in table format. **There are no existing bridges, transmission lines, or other structures across the Gibraltar River.**

   (If all bridges downstream have the same minimum clearance, state instead of the above requested information.)

2. Does the proposed bridge(s) match (or is greater than) the navigational clearance of existing structures on the waterway? **Not applicable, as there are no existing structures across the waterway.**

3. What is the most restrictive horizontal clearance on the waterway? (This may be a fixed bridge downstream/upstream of the proposed structure, a low hanging power line downstream/upstream of the bridge(s), or it may be some other structure that limits horizontal clearance. Sometimes the existing to-be-replaced bridge(s) is the most restrictive structure.)

   **River depths under normal flow conditions preclude motorized use. Anecdotal information is that typical water depths are approximately 1-2 feet under normal conditions, with occasional pools of 5-10 feet. The river is forded using 4-wheel all-terrain vehicles at multiple locations. River width is typically 50-110 feet. However, there are no existing bridges, transmission lines, or other structures across the Newhalen River.**

   a. **Milepoint:** *Not Applicable*

   b. **Horizontal clearance:** *Not Applicable*

4. What is the most restrictive vertical clearance on the waterway? (This may be a fixed bridge downstream/upstream of the proposed structure, a low hanging power line downstream/upstream of the bridge(s), or it may be some other structure which limits vertical clearance. Sometimes the existing to-be-replaced bridge(s) is the most restrictive structure.)

   a. **Milepoint:** *Not Applicable*

   b. **Vertical clearance:** *Not Applicable*

5. Will the proposed bridge(s) become the most restrictive/obstructive structure across the
waterway?  Yes

C. **Waterway characteristics:** (All domestic bridge navigational clearances should be stated in linear feet in decimal form vs. feet and inches. All international bridge navigational clearances should be stated in linear unit of measure as well as the metric equivalent.)

1. Various waterway stages: (Datum that is used). **Datum: NAVD88**

2. Natural flow of the waterway including currents, waterway velocity, water direction, and velocity fluctuations (seasonal, daily, hourly, etc.), that might affect navigation. **Velocity typical at OHW is 5-7 ft/sec. No significant daily or hourly change. Not navigable in winter due to occasional ice and low water.**

3. Width of the waterway at bridge site: **100 feet at OHW ft**

4. Depth of the waterway and elevation fluctuations at bridge site: [List the depth at each waterway bridge stage (ex. Range of tides, average high water elevation, etc.)]. **Low water depth in winter is 0.5 to 1.0 feet. Normal early summer water level estimated to be 2-3 feet. Water depth at OHW = 3 feet. Water depth at Q10 = 6.5 feet. Water depth at Q100 = 8.5 feet.**

5. Waterway layout and geometry: (For example, is there a dam or lock; does the elevation of the approach impact the required bridge(s) clearance?) **Bridge proposed will not have piers below OHW and abutments will be well above max flood level and not restricting flow. River is in natural shallow canyon with bedrock-controlled floodplain.**

6. Channel and waterway alignment: Location of the channel(s) **Single river channel at east limit of floodplain with thalweg near the east bank.**

7. Other limiting factors: (For example, bends in the waterway within one-half mile of project site, hindrances to free navigation, fog, hydraulics, etc.) **Nearest river bend is 0.1 miles upstream. River both up stream and downstream of the bridge site migrates over the narrow floodplain and often has multiple channels.**

D. **Do vessels that engage in emergency operations (i.e., law enforcement, fire, rescue, emergency dam repair, etc.), national defense activities (i.e. cruisers, fuel barges, munitions ships, etc.) or channel maintenance (i.e., dredges, dam and levee repair, etc.) operate on the waterway?** No

**If yes, describe the vessels and provide the following information:** (Not Applicable)

1. Does levee maintenance, bridge work (other bridges), channel maintenance and emergency operations upstream of bridge require certain vessels to transit the waterway?

2. Does the proposed bridge(s) impact USCG and/or other government vessels’ ability to transit the bridge(s) to conduct mission essential functions (icebreakers, patrols, etc.)?

3. Vessels using the waterway during the proposed bridge(s) lifespan (should include):
a. Vessel name;
b. Registration/documentation numbers;
c. Vessel type;
d. Vessel owner contact information (company/individual name, address, contact info.);
e. Primary vessel mooring location (include waterway milepoint, if known);
f. Vessel overall length;
g. Vessel beam;
h. Vessel draft (depth of hull below waterline at full load);
i. Vessel air draft (height of the highest fixed point of the vessel above the waterline, when empty);
j. Specialized vessels that use the waterway (e.g. vessels which have limited maneuverability due to inherent design or mode of operation);
k. Safety margin required by vessel to navigate through the bridge(s);
l. Vessel transit frequencies under proposed bridge(s), transit speeds, and load configurations; and
m. Vessel traffic characteristics (to include if tug assist is required for transit through the bridge(s) due to limited horizontal clearance).

4. Will the proposed bridge(s) provide the horizontal and vertical clearances for the safe, efficient passage of the largest of these vessels? Why?

5. If no, estimate the number of vessels in each of the above categories unable to pass through the proposed bridge(s). Give the name, length overall (LOA), beam, draft and height of highest fixed point above the waterline for vessels affected by the bridge(s).

6. Can these vessels be modified (i.e., folding mast, relocation or equipment, etc.) without decreasing their respective response times? If so, name the vessels.

7. If modifications are feasible, state the name of the vessel(s), their trip frequency, the necessary modifications, the cost of the modification(s) and who will pay for them (i.e., vessel owner, applicant, other).

8. Provide any additional information concerning the potentially impacted or burdened users of the waterway as well as the future use of the waterway.

E. Has the United States Corps of Engineers (USACE) completed or does it plan to complete a federal navigation project on the waterway? _No_
If yes, provide the following information: (Not Applicable)

1. Project name, downstream/upstream milepoints, depth, type of project, scope, status of project and other limiting factors.

2. Whether there is/was a “design vessel” used in planning the channel? What is/was the design vessel? Was the design vessel reviewed by the Coast Guard?

3. The following specifications of the vessel for which the navigation project is or will be designed: LOA, beam, draft and height of highest fixed point above the waterline.

4. Will the proposed bridge(s) provide the horizontal and vertical clearances necessary for the safe, efficient passage of the vessel for which the navigation project was designed?

5. If so, can the vessel be modified to clear the proposed bridge(s) without substantially increasing operating costs?

6. If modifications are feasible, state the necessary modifications, costs of any modification(s), and who will pay for the modifications.

7. Are there projected changes in waterway usage based upon anticipated waterway improvement projects?

8. Does the proposed bridge(s) impact USACE ability to transit the bridge(s) in a Federal project channel?

F. Describe the present and prospective recreational navigation: Will the proposed bridge(s) affect the safe, efficient movement of any segment of the present or prospective recreational fleet operation on the waterway? No. Bridge clearance will exceed all requirements for present or prospective recreational use.

Navigational Uses of the Gibraltar River

River depths under normal flow conditions preclude motorized use. Anecdotal information is that typical water depths are approximately 1-2 feet under normal conditions, with occasional pools of 5-10 feet. The river is forded using 4-wheel all-terrain vehicles at multiple locations. The full length of the river shoreline and the Gibraltar Lake shoreline consists of private land belonging to the Alaska Peninsula Corporation (APC). APC does not allow unauthorized access across their lands and actively discourages motorized use of the river at all times. The only reported recreational use is by people floating the river using tubes and inflatable rafts.

APC has provided a concession to a single operator for guided fishing use of the river. This activity is limited to wading and float supported sport fishing activities. No other commercial activity makes use of the river. The local community does use the river for subsistence harvest activities, but access is primarily across country using 4-wheel all-terrain vehicles.
If yes, provide the following information: *(Not Applicable)*

1. Vessels utilizing the waterway during the proposed bridge(s) lifespan. (Information in this bullet should include:)

   a. Vessel name;
   b. Registration/documentation numbers;
   c. Vessel type;
   d. Vessel owner contact information (company/individual name, address, contact info.);
   e. Primary vessel mooring location (include waterway milepoint, if known);
   f. Vessel overall length;
   g. Vessel beam;
   h. Vessel draft (depth of hull below waterline at full load);
   i. Vessel air draft (height of the highest fixed point of the vessel above the waterline, when empty);
   j. Specialized vessels that use the waterway (e.g., vessels which have limited maneuverability due to inherent design or mode of operation);
   k. Safety margin required by vessel to navigate through the bridge(s);
   l. Vessel transit frequencies under proposed bridge(s), transit speeds, and load configurations; and
   m. Vessel traffic characteristics (to include if tug assist is required for transit through the bridge(s) due to limited horizontal clearance).

2. What is the estimated percentage of the recreational fleet, which may be affected by the proposed bridge(s)?

3. Will the proposed bridge(s) eliminate the access of these vessels to existing or planned commercial, water-oriented facilities (i.e., restaurants, shops, recreational areas, marinas, etc.) in the vicinity of the proposed bridge(s)? If yes, describe these facilities.

4. Is it feasible to modify the affected segments of the fleet to clear the proposed bridge(s) without substantially increasing operating costs? If yes, name the vessel(s), state the necessary modifications, cost of modifying each vessel and person or entity responsible for financing the modifications.

5. Provide any additional information concerning the potentially impacted or burdened users of the waterway as well as the future use of the waterway.
NOTE: Check with local USACE District Office, Chamber of Commerce or other organizations for proposed marinas, recreational areas, shops, etc.

G. Describe the present and waterway and prospective commercial navigation and the cargoes moved on the waterway: Will the proposed bridge(s) affect the safe, efficient movement of any segment of the present or prospective commercial fleet operating on the waterway? **No, commercial activity on the waterway is limited to guided fishing activity utilizing floating and wading. Bridge clearance will exceed all requirements for present or prospective use.**

If yes, provide the following information: (Not Applicable)

1. Vessel name;
2. Registration/documentation numbers;
3. Vessel type;
4. Vessel owner contact information (company/individual name, address, contact info.);
5. Primary vessel mooring location (include waterway milepoint, if known); vessel overall length;
6. Vessel beam;
7. Vessel draft (depth of hull below waterline at full load);
8. Vessel air draft (height of the highest fixed point of the vessel above the waterline, when empty);
9. Specialized vessels that use the waterway (e.g. vessels which have limited maneuverability due to inherent design or mode of operation);
10. Safety margin required by vessel to navigate through the bridge(s);
11. Vessel transit frequencies under proposed bridge(s), transit speeds, and load configurations; and
12. Vessel traffic characteristics (to include if tug assist is required for transit through the bridge(s) due to limited horizontal clearance).
13. Does the proposed bridge(s) impact existing and future cruise ship ports-of-call/terminals?
14. Does the proposed bridge(s) impact ports supporting post-Panamax vessels?
15. Does the proposed bridge(s) impact vessels that produce unique products for the region?
16. Does the proposed bridge(s) impact vessels that require helper boats/tugs? (Note the combined clearance requirement of the vessel and the helper boat/tug.)
17. Document annual cargo movements (cargo types and quantities);

18. State the estimated percentage of the commercial fleet, which may be affected by the proposed bridge(s).

19. Will the proposed bridge(s) clearance impact present and/or prospective upstream commercial activity, e.g., jobs and economic growth and development?

20. If yes, address any existing or planned commercial/industrial developments negatively affected by the proposed clearances and discuss the economic impacts the proposed clearances will have on these businesses:

21. Document the foreseeable needs to future navigation;

22. Provide existing and historical navigational use and waterway conditions;

23. Provide input from waterway dependant facilities concerning future use;

24. Describe land use zoning along the waterway (particularly within the riparian zone);

25. Describe future vessel size and traffic trends;

26. Include input from states based on state development plans;

27. Include input from facilities based on business plans;

28. Document local commercial shipping and other businesses affected by this restriction.

Note: the next opportunity to adjust clearances for navigation is usually between 50-100 years unless interim waterway improvement projects include the cost of bridge alterations.

29. Is it feasible to modify the restricted vessels to clear the proposed bridge(s) without substantially increasing operating costs? If yes, name the vessel(s), state the necessary modifications, cost of modifying each vessel and company or entity responsible

30. Provide any additional information concerning the potentially impacted or burdened users of the waterway as well as the future use of the waterway.

H. **Identify the name and contact information for marine facilities located within a 3-mile radius of the proposed project (public boat ramps, marinas or major docking facilities, boat repair facilities, etc.):** *(Not applicable)*

I. **Will the proposed bridge(s) block access of any vessel presently using local service facilities (i.e., repair shops, parts distributors, fuel stations)?** *No.*

   **If yes, provide the following information:** *(Not Applicable)*

1. Describe the facilities impacted and estimate the number of vessels currently using these facilities.
a. Vessel information should include the following for each blocked vessel:

1) Vessel name;
2) Registration/documentation numbers;
3) Vessel type;
4) Vessel owner contact information (company/individual name, address, contact info);
5) Primary vessel mooring location (include waterway milepoint, if known); vessel overall length;
6) Vessel beam;
7) Vessel draft (depth of hull below waterline at full load); and
8) Vessel air draft (height of the highest fixed point of the vessel above the waterline, when empty);

2. Could any of these facilities be considered critical infrastructure, key resources, or important/unique U.S. industrial capability (i.e., are these facilities unique or one of only a few of the type in the area?) Address whether the proposed clearances negatively affect those facilities and their customers.

3. What economic impact will loss of access have on these facilities? Include estimated dollar amount to support Commandant and DHS goals.

4. What is the distance to alternate service facilities capable of servicing the affected vessels? Describe the facilities.

5. Will use of these alternate facilities substantially increase vessel operation affected vessels? Describe the facilities.

6. Is it feasible to modify the affected vessels to clear the proposed bridge(s)?

7. If yes, state the name, necessary modifications, cost of modifying each vessel and who will pay for the modifications.

J. Are alternate routes bypassing the proposed bridge(s) available for use by vessels unable to pass the proposed bridge(s)? No

If yes, provide the following information: (Not Applicable)

1. State the number of vessels that will be forced to use alternate routes.

2. For each vessel identified in section H1.a. above, include the following information:

   a. Vessel name;
b. Registration/documentation numbers;

c. Vessel type;

d. Vessel owner contact information (company/individual name, address, contact info.);

e. Primary vessel mooring location (include waterway milepoint, if known);

f. Vessel overall length;

g. Vessel beam;

h. Vessel draft (depth of hull below waterline at full load);

i. Vessel air draft (height of the highest fixed point of the vessel above the waterline, when empty); and

j. Specialized vessels that use the waterway (e.g., vessels which have limited maneuverability due to inherent design or mode of operation);

3. Identify any alternate routes and provide the respective distances between the proposed bridge(s) and these routes.

4. Will use of these routes substantially increase the transit time and/or operating costs of the affected vessels? This relates to the mobility goals of the Commandant and DHS.

5. If yes, describe the impacts of increased transit time and/or operating costs.

6. Is it feasible to modify these vessels to clear the proposed bridge(s)?

7. If yes, state the name, necessary modifications, cost of modifying each vessel and who will pay for these modifications.

K. Will the bridge(s) prohibit the entry of any vessels to the local harbor of refuge? No

If yes, describe the harbor and provide the following information: (Not Applicable)

1. What percentage of vessels currently using the harbor refuge will not be able to pass the proposed bridge(s) to gain access to that refuge? Describe the vessels.

2. Provide vessel information for those vessels identified in J.1.:
   a. Vessel name;
   b. Registration/documentation numbers;
   c. Vessel type;
   d. Vessel owner contact information (company/individual name, address, contact info.);
   e. Primary vessel mooring location (include waterway milepoint, if known);
f. Vessel overall length;

g. Vessel beam;

h. Vessel draft (depth of hull below waterline at full load);

i. Vessel air draft (height of the highest fixed point of the vessel above the waterline, when empty); and

j. Specialized vessels that use the waterway (e.g. vessels which have limited maneuverability due to inherent design or mode of operation);

3. Is it feasible to modify these vessels to clear the proposed bridge(s)?

4. If yes, state the name, necessary modification, cost of modifying each vessel and who will pay for the modifications.

5. If alternate refuges are available, describe them and state the distance of each from the present harbor of refuge.

NOTE: A harbor of refuge is defined as a naturally or artificially protected water area that provides a place of relative safety or refuge for commercial and recreational vessels traveling along the coast or operating in a region.

L. Will the proposed bridge(s) be located within one-half mile of a bend in a waterway? Yes

If yes, describe the bend and provide the following information:

1. Is there sufficient distance between the bridge(s) and the bend to allow proper vessel alignment for the safe, efficient passage of vessels through the proposed bridge(s)? Yes

2. If no, what factors make construction of the bridge(s) at an alternate location impractical?

M. Are there other factors (i.e., dockages, lightering areas, existing bridges, etc.) located within one-half mile of the proposed bridge(s), which would create hazardous passage through the proposed structure? No.

If yes, provide the following information: (Not Applicable)

1. Describe the factors. (For example, construction impacts to navigation and waterway users, etc.)

2. What mitigative measures are being recommended? (For example, navigation safety during construction, etc.) Why?

N. Do local hydraulic conditions (i.e., wave chop, cross currents, tides, shoals, etc.) increase the hazard of passage through the proposed bridge(s)? No.

If yes, provide the following information: (Not Applicable)
1. Describe the conditions:

2. What mitigative measures are being recommended? Why?

O. **Do local atmospheric conditions (i.e., strong, prevailing winds, fog, rapidly developing storms, etc.) increase the hazard of passage through the proposed bridge(s)?** *No.*

   **If yes, provide the following information:** *(Not Applicable)*

   1. Describe the conditions:

   2. What mitigative measures are being recommended? Why?

P. **Have guide clearances been established for the waterway?** *No.*

   **If yes, provide the following information:** *(Not Applicable)*

   1. Horizontal guide clearance;

   2. Vertical guide clearance;

   3. Do the proposed bridge(s) clearances differ from these guide clearances?

   4. If yes, what factors justify deviating from these guide clearances?

Q. **Are there other natural or man-made conditions that affect navigation (atmospherics, exclusion zones, etc.)?** *River depths under normal flow preclude motorized use.*

   1. Describe the conditions: **Anecdotal information is that typical water depths are approximately 1-2 feet under normal conditions, with occasional pools of 5-10 feet. The river is forded using 4-wheel all-terrain vehicles at multiple locations.**

   2. What mitigative measures are being recommended? *None.* Why? **The proposed Gibraltar River Bridge would not affect navigational clearances or existing navigational use on the Gibraltar River.**

R. **State any other factors considered necessary for the safe, efficient passage of vessels through the proposed bridge(s)?** *None.* **Are clearance gauges needed?** *No.* Why? **The proposed bridge will not affect existing navigational use on the Gibraltar River.*
S. Include a description of the impacts to navigation caused or which could be reasonably caused by the proposed bridge(s) including but not limited to: proposed construction methodology, proposed or prospective changes to the existing bridge(s) operating schedule (for movable bridges), and any proposed mitigation to all unavoidable impacts to navigation. No impacts to navigation are anticipated to result from construction or operation of the proposed Gibraltar River Bridge.

1. Conduct a navigational impact report, and include a review of all bridges upstream and downstream of the proposed site to determine the minimum vertical and horizontal clearances available on the waterway. There are no existing bridges across the Gibraltar River.

2. If the proposed bridge(s) is fixed, and is replacing an existing drawbridge with unlimited vertical clearance, the applicant must determine whether the proposed bridge(s) will accommodate existing and perspective navigation. (Not Applicable)

T. Is there any proposed or completed mitigation for impacted waterway users? Are there any impacts that cannot be mitigated? No impacts to navigation are anticipated; therefore, no mitigation specific to navigation is proposed.

1. Can vessels and cargoes be partially disassembled/dismantled in order to transit the proposed bridge(s), and if so, is it economically reasonable? The Coast Guard must take into consideration a vessel’s ability to adjust its operations without economic loss. Adjustment or mitigations techniques may include using other routes, lowering electronics (GPS, radar, communication antennae, etc.), lowering crane booms, etc.

2. Are alternative routes available for vessel passage?

3. Can vessels transit at typical lower water stages (mean low water, mean pool level, etc.)?
DATUM: NAD83 ASPZ 5, NAVD88 GEOID99, FT
COORDINATES AT CENTER OF BRIDGE
N: 1,979,623 E: 1,487,564
LAT: 59° 24' 59" N
LONG: 154° 49' 14" W
ELEVATION: 134'

NOTE:
1. 24 FT BOAT
   66 FT TRUCK
   SHOWN FOR SCALE
2. CONCEPTUAL PLANS BASED ON 2019
   GROUND SURVEY BY RECON AND 2019
   HYDROLOGICAL REPORT BY HYDRAULIC
   MAPPING AND MODELING.
3. MLW WATER BASED ON FIELD
   OBSERVATIONS.
4. NO EXCAVATION, DREDGING, OR
   PLACEMENT OF FILL/RIPRAP BELOW
   OHW.
5. ALL LAND OWNED BY ALASKA
   PENINSULA CORP.

CONCEPTUAL PLANS FOR COAST GUARD REVIEW

STATE OF ALASKA
REGISTERED PROFESSIONAL ENGINEER

12/02/19
8.5" x 11"
SHEET 2 OF 4
DATUM: NAD83 ASPZ 5, NAVD88 GEOID99, FT
COORDINATES AT CENTER OF BRIDGE
N: 1,979,623 E: 1,487,564
LAT: 59° 24’ 59” N
LONG: 154° 49’ 14” W
ELEVATION: 134’

HORIZONTAL CLEARANCE
(LIMITS OF NAVIGATIONAL CHANNEL)

RIVER CENTERLINE
FINISHED ROAD GRADE

TEMP. BRIDGE 30’ HORIZONTAL CLEARANCE

MAX ELEVATION FOR 100-YR FLOOD 82 FT
MAX ELEVATION FOR 10-YR FLOOD 80.5 FT

ORIGINAL GROUND

OHW 76 FT
MLW 75 FT
BOTTOM OF GIBRALTAR RIVER CHANNEL 73.5 FT

125 FT ELEVATION OF LOWEST BRIDGE BEAM IN NAVIGATIONAL CHANNEL

NOTE:
1. CONCEPTUAL PLANS BASED ON 2019 GROUND SURVEY BY RECON AND 2019 HYDROLOGICAL REPORT BY HYDRAULIC MAPPING AND MODELING.
2. MLW WATER BASED ON HISTORICAL GAUGE DATA AND FIELD OBSERVATIONS.
3. NO FILL OR RIPRAP TO BE PLACED BELOW OHW

ELEVATION VIEW
CONCEPTUAL PLANS FOR COAST GUARD REVIEW

GIBRALTAR RIVER BRIDGE
ILIAMNA LAKE TO AMAKDEDORI ROAD
LAKE & PEN. BOROUGH, ALASKA
~2.3 MILES UP RIVER FROM LAKE ILIAMNA

APPLICANT: PEBBLE LIMITED PARTNERSHIP
3201 C STREET, SUITE 604 ANCHORAGE, AK 99503

12/02/19
8.5” x 11”

PREPARED BY: RECON LLC
481 W. RECON CIR. PALMER, AK 99645

REVIEWED BY: SRR
DRAWN BY: MCS REVIEW DATE: 12/04/2019

STATE OF ALASKA
REGISTERED PROFESSIONAL ENGINEER
49TH

Steven R. Rowland
CE-7241

12/05/19

SHEET 3 OF 4
GIBRALTAR RIVER BRIDGE
ILIAMNA LAKE TO AMAKDEDORI ROAD
LAKE & PEN. BOROUGH, ALASKA
~2.3 MILES UP RIVER FROM LAKE ILIAMNA

TYPICAL SECTION VIEW
CONCEPTUAL PLANS FOR COAST GUARD REVIEW

12/05/19
INTRODUCTION AND METHODS

The Pebble Limited Partnership (PLP) is proposing to build an access road to the Amakdedori Port site from the South Ferry Terminal, which would be constructed ~3.2 mi (5.1 km) west of the Kokhanok airport on the south shore of Iliamna Lake. The proposed Port Access Road would require the construction of a bridge to cross the Gibraltar River ~1.1 mi (1.8 km) south-southwest of the Kokhanok airport (Figure 1). A permit application for the U.S. Coast Guard requires information on the current distribution of Bald and Golden Eagle nests within 0.5 mi (0.8 km) of the proposed bridge site. In December 2019, ABR was requested to provide the most current information on eagle nest locations and occupancy status near the proposed Gibraltar River bridge site by reviewing current nest location and status data for the area.

In 2018, ABR, Inc. (ABR) conducted raptor nest surveys within a 3.0 mi (4.8 km) buffer of the proposed access road alignments for the Pebble Project that were envisioned at that time; this included the area where the proposed Port Access Road would cross the Gibraltar River. A nest occupancy survey focused primarily on Golden Eagles and other early cliff-nesting raptors was conducted from 23–26 April 2018, and an occupancy survey focused on Bald Eagles and other tree- and late-nesting raptors was conducted from 15–17 May 2018. A follow-up nest productivity survey was conducted from 12–14 July 2018 for all species. For each occupancy survey, the raptor survey field protocols followed established helicopter-based survey techniques for cliff- and tree-nesting raptors in North America (Anderson 2007), as well as specific eagle nest survey methods (USFWS 2007; Pagel et al. 2010). Specifically, 2 observers surveying from a helicopter flew low (<200 ft [61 m] agl) and slow (~10–15 mph [16–24 kph]) over suitable nesting habitat with either tall (e.g., overstory) trees or cliffs. In July, occupied nests or nests with an unknown occupancy status were revisited during the productivity survey to determine the final occupancy and productivity status of each nest. Nest site locations were recorded on a GPS receiver and we collected occupancy and productivity data on data forms. All data were subsequently entered into a relational database.

DATA SUMMARY

No raptor nests were located within 0.5 miles of the proposed Gibraltar River bridge site on any survey in 2018 (Figure 1). There is very little suitable Bald and Golden Eagle nesting habitat within a half mile of the Gibraltar River for its entire length downstream of the outlet from Gibraltar Lake. The closest nests were >4.3 mi (6.9 km) from the proposed bridge.

LITERATURE CITED


Raptor Nests, Surveyed 2018
Gibraltar River Crossing
Pebble Project

Nest Occupancy Status
Occupied  Unknown  Unoccupied
Bald Eagle  ⭐  Unknown  Unoccupied
Golden Eagle  ▲  Unknown  Unoccupied
Merlin  ⬤  Unknown  Unoccupied

Raptor Survey Area
Port Access Road

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
ABR file: Pebble_Gibraltar_River_Crossing.mxd; 04 Dec 2019

Scale  1:100,000

0  0.5  1  1.5  2  2.5  Miles
0  1  2  3  4  Kilometers