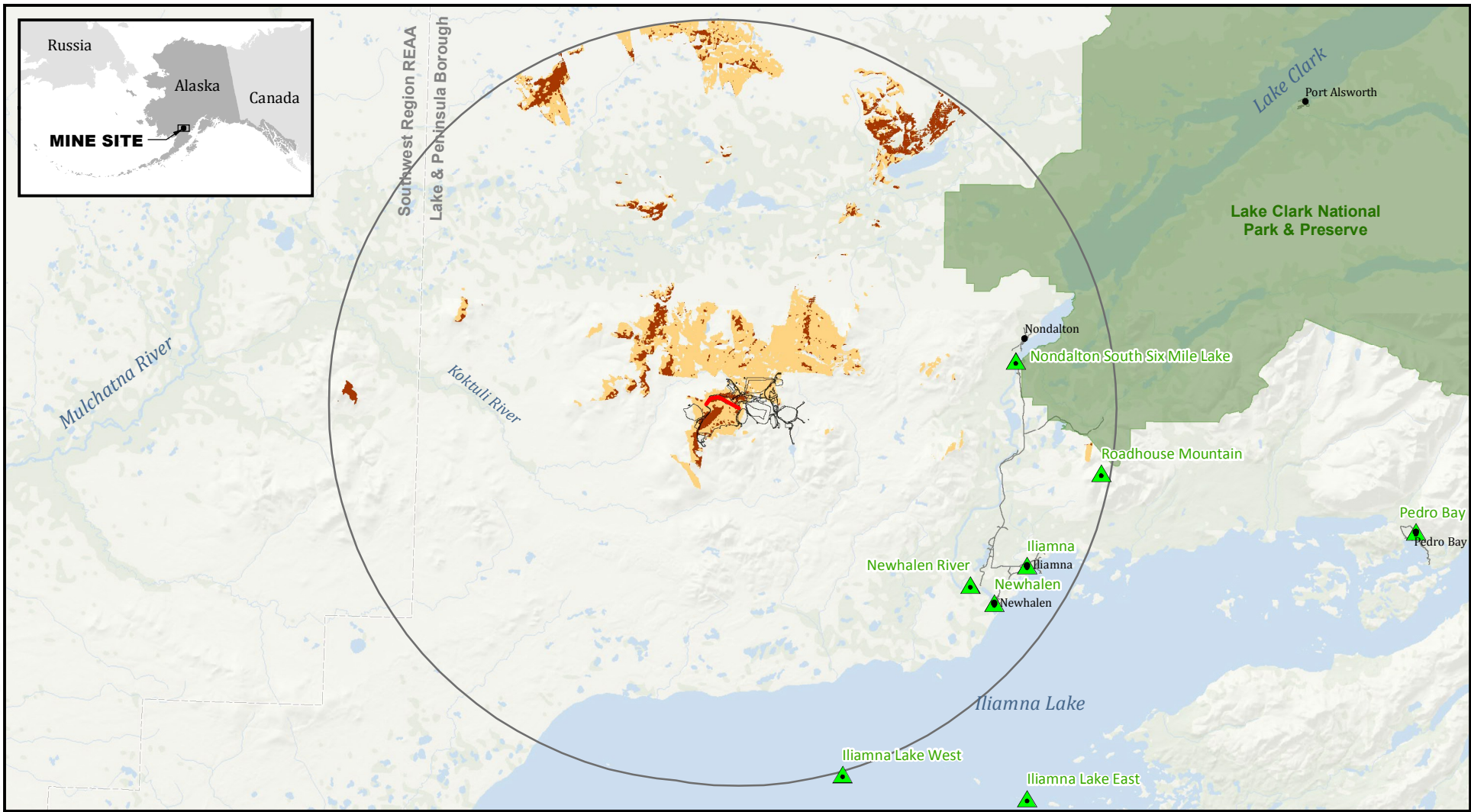


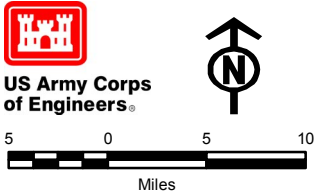
## **K4.11 AESTHETICS**

Viewshed analyses were developed for Alternatives 1, 2, and 3 by the Pebble Limited Partnership (PLP) (PLP 2018-RFI 034a, PLP 2018-RFI 034c) and used to form the basis of analysis in Section 4.11, Aesthetics. The viewshed analyses are below in Figure K4.11-1 through Figure K4.11-13.

Simulations of project components from a series of predetermined Key Observation Points (KOPs) were developed by PLP (PLP 2018-RFI 034a) and shown in Figure K4.11-12 through Figure K4.14-19.



Sources: HDR 2018-RF1 034a



**Viewshed Analysis**

- Key Observation Points
- Visible Area/Land Cover
- Visible Area/Bare Earth
- Analysis Area (25 mi radius)

**Alternative 1**

- Mine Site
- Main Embankment Crest

**Other Features**

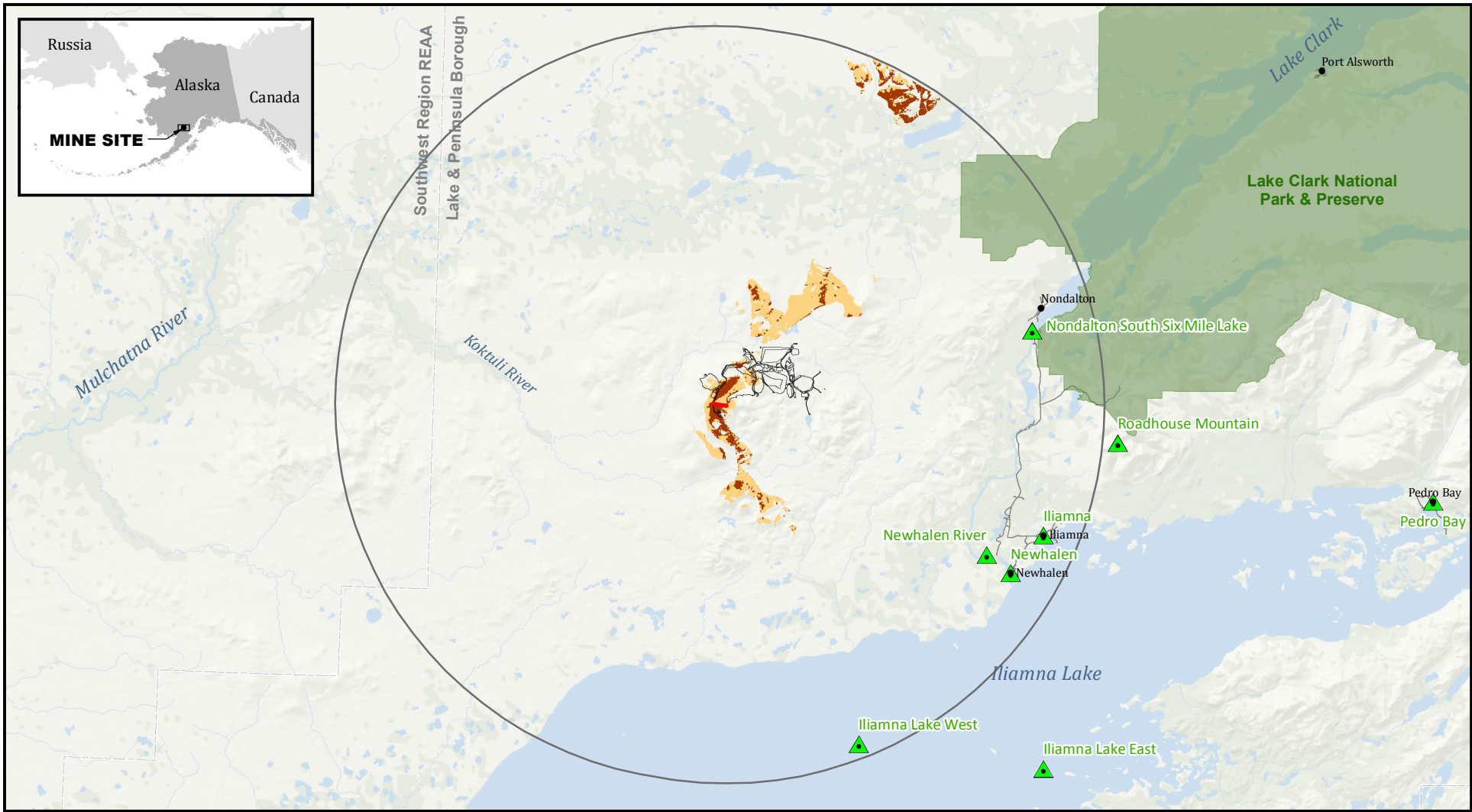
- Local Roads

- Borough Boundary
- National Park

Note: The visible area for the land cover viewshed model is also visible in the bare earth model.

**TSF MAIN EMBANKMENT VIEWSHED ANALYSIS**

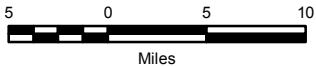
FIGURE K4.11-1



Sources: HDR 2018-RF1 034a



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**Viewshed Analysis**

- Key Observation Points
- Visible Area/Land Cover
- Visible Area/Bare Earth
- Analysis Area (25 mi radius)

**Alternative 1**

- Mine Site
- South Embankment Crest

**Other Features**

- Local Roads

Borough Boundary

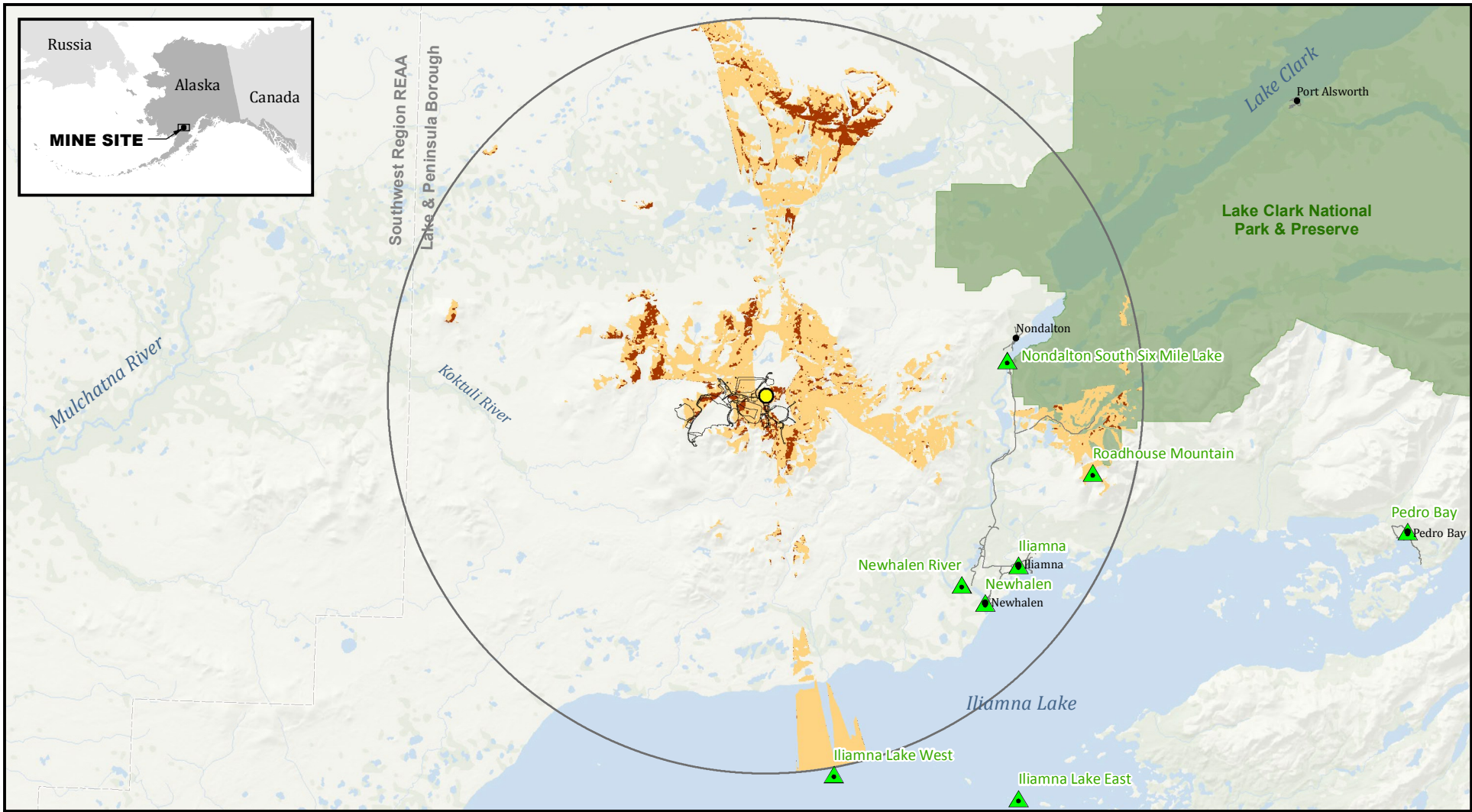
National Park

Note: The visible area for the land cover viewshed model is also visible in the bare earth model.

PEBBLE PROJECT EIS

**TSF SOUTH EMBANKMENT VIEWSHED ANALYSIS**

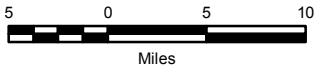
FIGURE K4.11-2



Sources: HDR 2018-RFI 034a



US Army Corps of Engineers



**Viewshed Analysis**

- Key Observation Points
- Visible Area/Land Cover
- Visible Area/Bare Earth
- Analysis Area (25 mi radius)

**Alternative 1**

- Mine Site
- Coarse Ore Stockpile Top

**Other Features**

- Local Roads

Borough Boundary

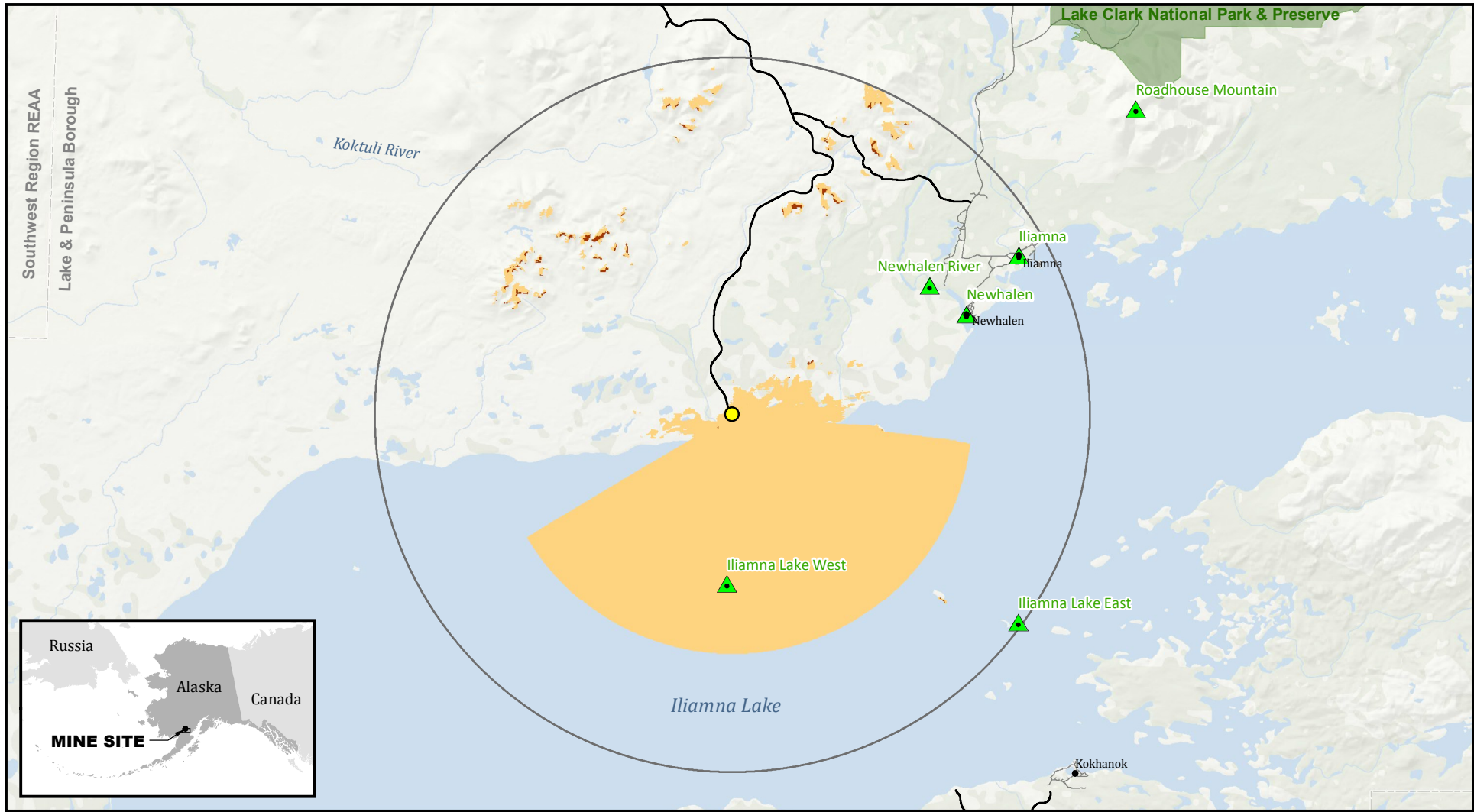
National Park

Note: The visible area for the land cover viewshed model is also visible in the bare earth model.

PEBBLE PROJECT EIS

**COARSE ORE STOCKPILE VIEWSHED ANALYSIS**

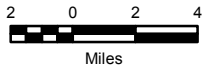
FIGURE K4.11-3



Southwest Region REAA  
Lake & Peninsula Borough



Sources: HDR 2018-RFI 034a



**Viewshed Analysis**

- Key Observation Points
- Visible Area/Land Cover
- Visible Area/Bare Earth
- Analysis Area (15 mi radius)

**Alternative 1**

- Transportation Corridor
- North Ferry Terminal Maintenance Shop

**Other Features**

- Local Roads

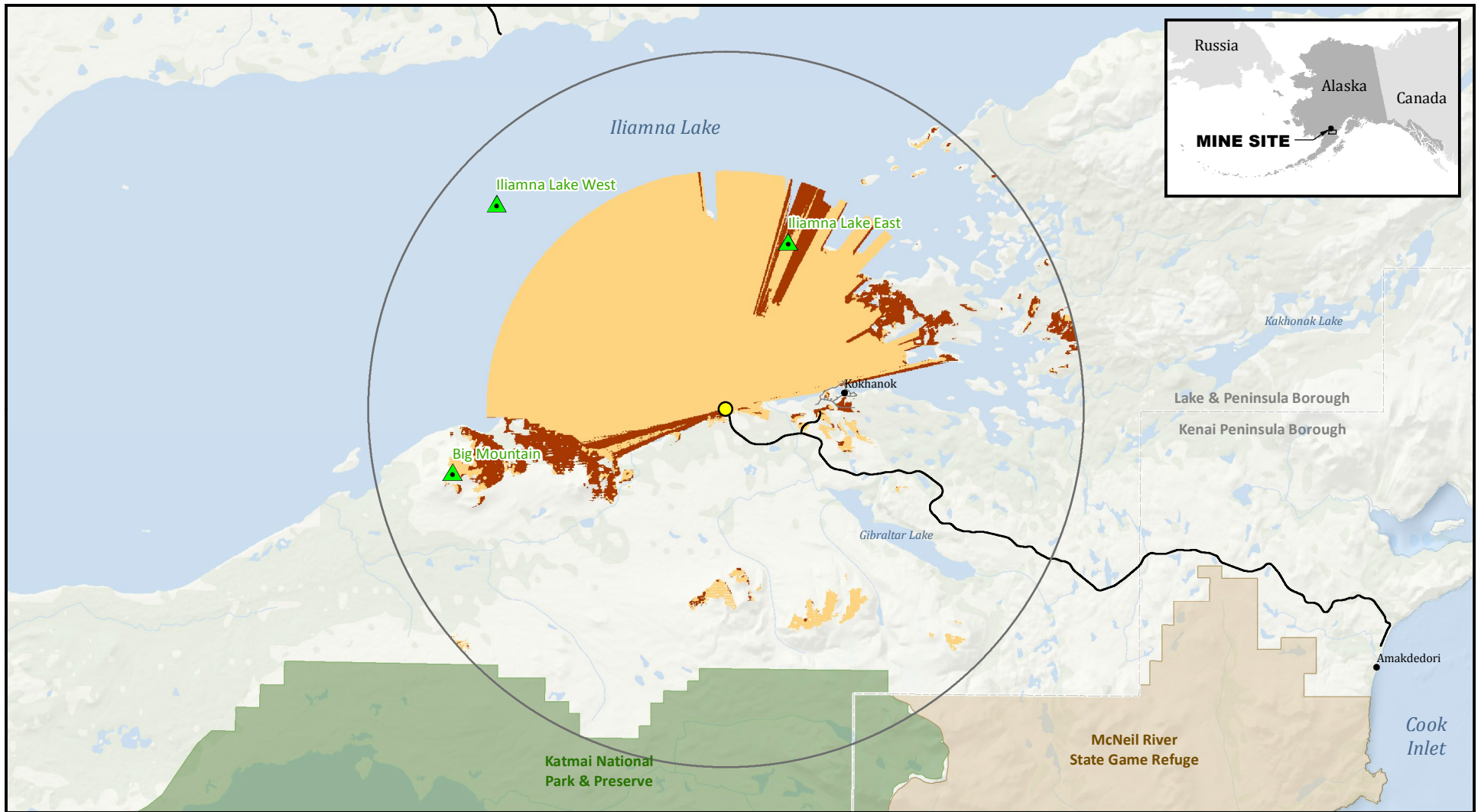
- Borough Boundary
- National Park

Note: The visible area for the land cover viewshed model is also visible in the bare earth model.

PEBBLE PROJECT EIS

**ALTERNATIVE 1 NORTH FERRY  
TERMINAL VIEWSHED ANALYSIS**

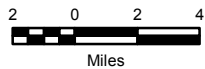
FIGURE K4.11-4



Sources: HDR 2018-RF1 034a



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**Viewshed Analysis**

- Key Observation Points
- Visible Area/Land Cover
- Visible Area/Bare Earth
- Analysis Area (15 mi radius)

**Alternative 1**

- Transportation Corridor
- South Ferry Terminal Maintenance Shop

**Other Features**

- Local Roads

**Borough Boundary**

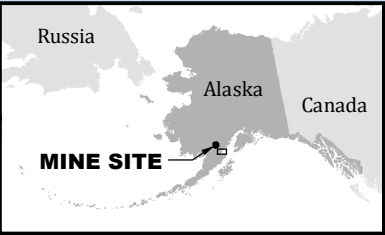
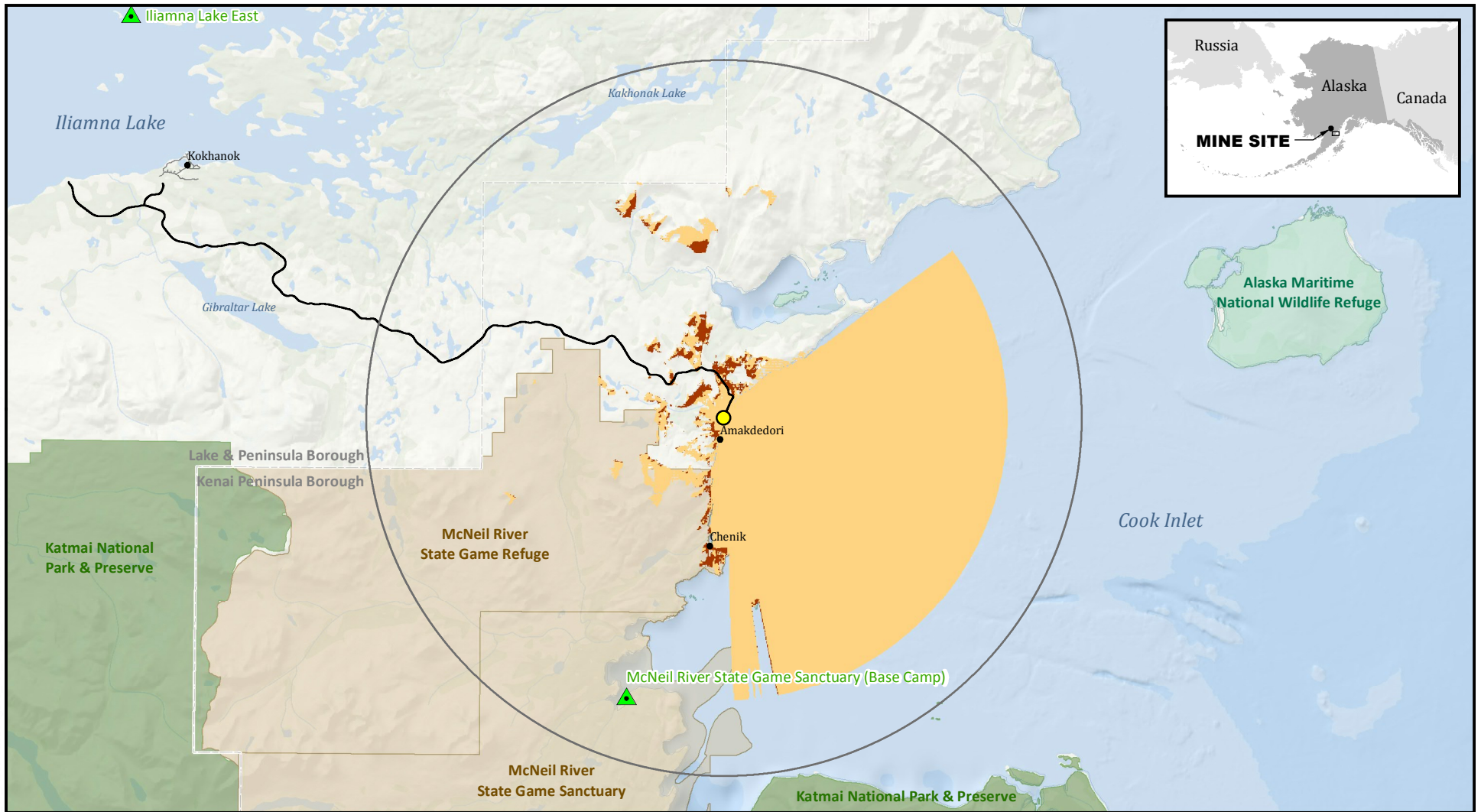
- National Park
- State Game Refuge/Sanctuary

Note: The visible area for the land cover viewshed model is also visible in the bare earth model.

PEBBLE PROJECT EIS

**ALTERNATIVE 1 SOUTH FERRY TERMINAL VIEWSHED ANALYSIS**

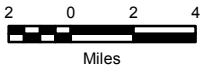
FIGURE K4.11-5



Sources: HDR 2018-RF1 034a



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**Viewshed Analysis**

- Key Observation Points
- Visible Area/Land Cover
- Visible Area/Bare Earth
- Analysis Area (15 mi radius)

**Alternative 1**

- Transportation Corridor
- Amakdedori Port Power Generator Building

**Other Features**

- Local Roads

- Borough Boundary

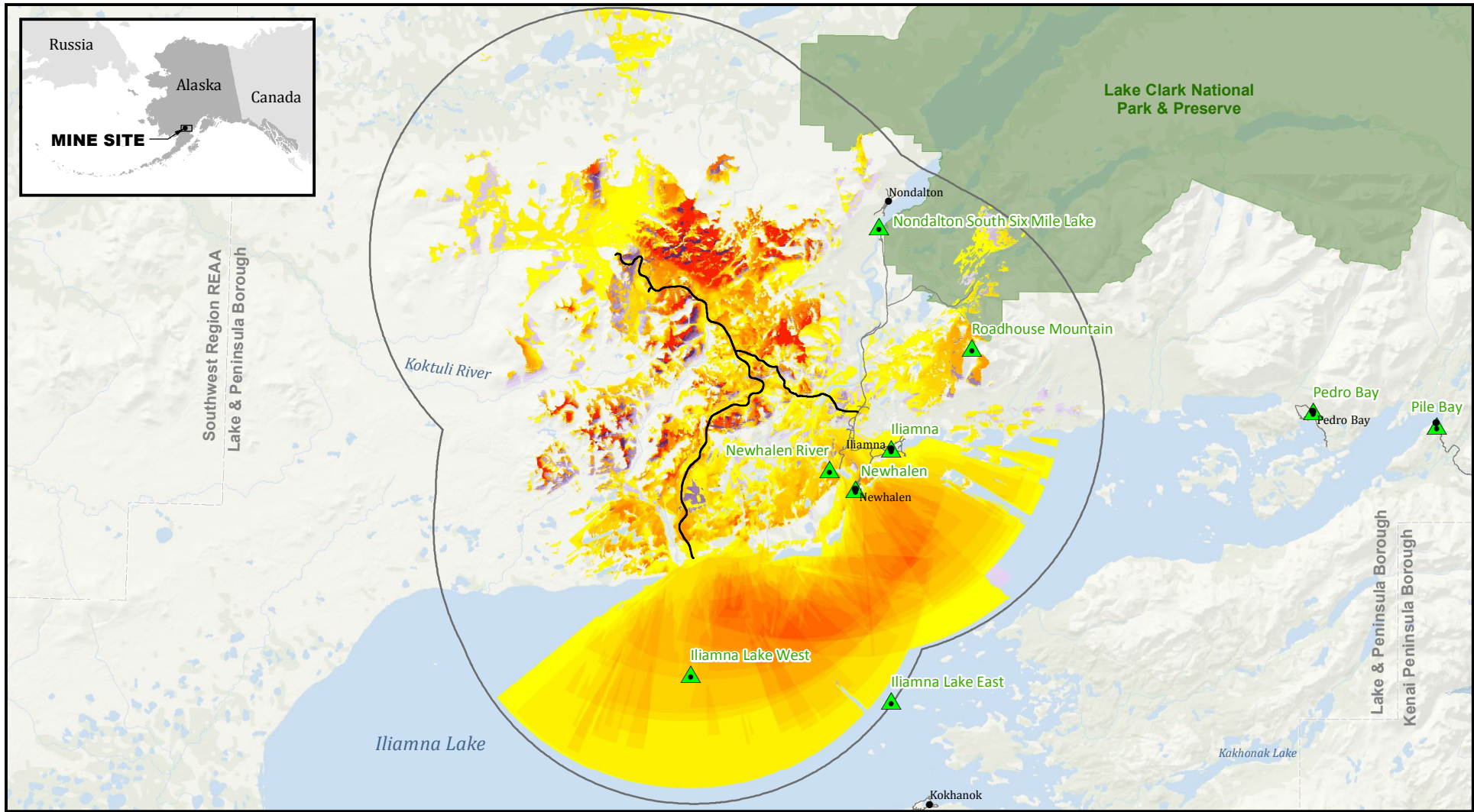
- National Park
- National Wildlife Refuge
- State Game Refuge/Sanctuary

Note: The visible area for the land cover viewshed model is also visible in the bare earth model.

PEBBLE PROJECT EIS

**ALTERNATIVE 1  
AMAKDEDORI  
PORT VIEWSHED  
ANALYSIS**

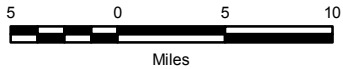
FIGURE K4.11-6



Sources: HDR 2018-RF1 034a



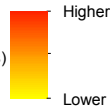
US Army Corps of Engineers



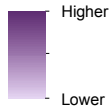
**Viewshed Analysis**

- Key Observation Points
- Analysis Area (15 mi radius)

**Visible Area/Land Cover**



**Visible Area/Bare Earth**



**Alternative 1**

- Transportation Corridor

**Other Features**

- Local Roads
- Borough Boundary
- National Park

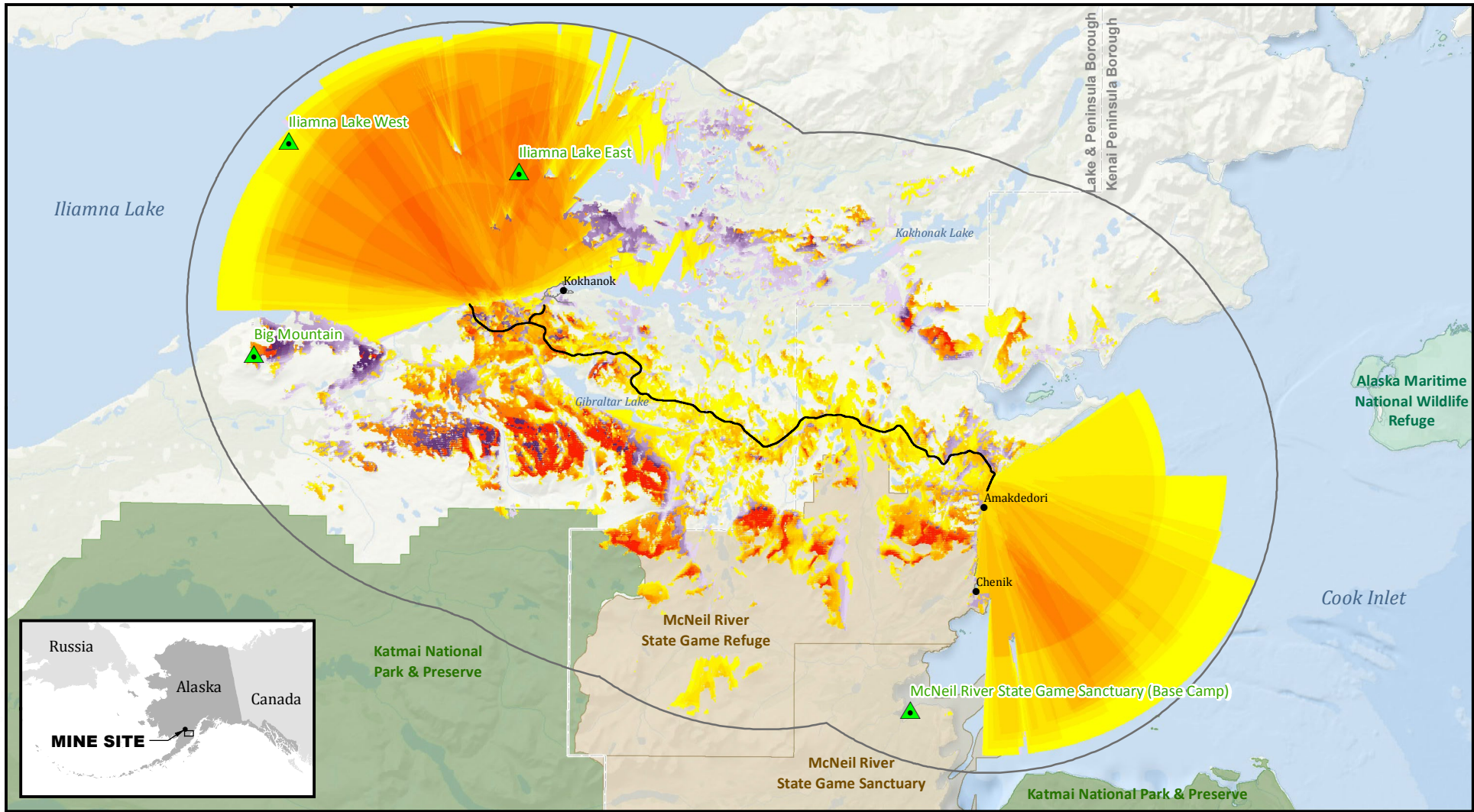
Note: The visible area for the land cover viewshed model is also visible in the bare earth model.

**PEBBLE PROJECT EIS**

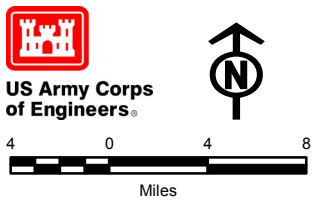
**ALTERNATIVE 1 MINE ACCESS ROAD VIEWSHED ANALYSIS**

**FIGURE K4.11-7**





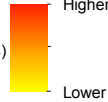
Sources: HDR 2018-RFI 034a



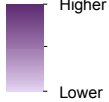
**Viewshed Analysis**

- Key Observation Points
- Analysis Area (15 mi radius)

**Visible Area/Land Cover**



**Visible Area/Bare Earth**



**Alternative 1**

- Transportation Corridor

**Other Features**

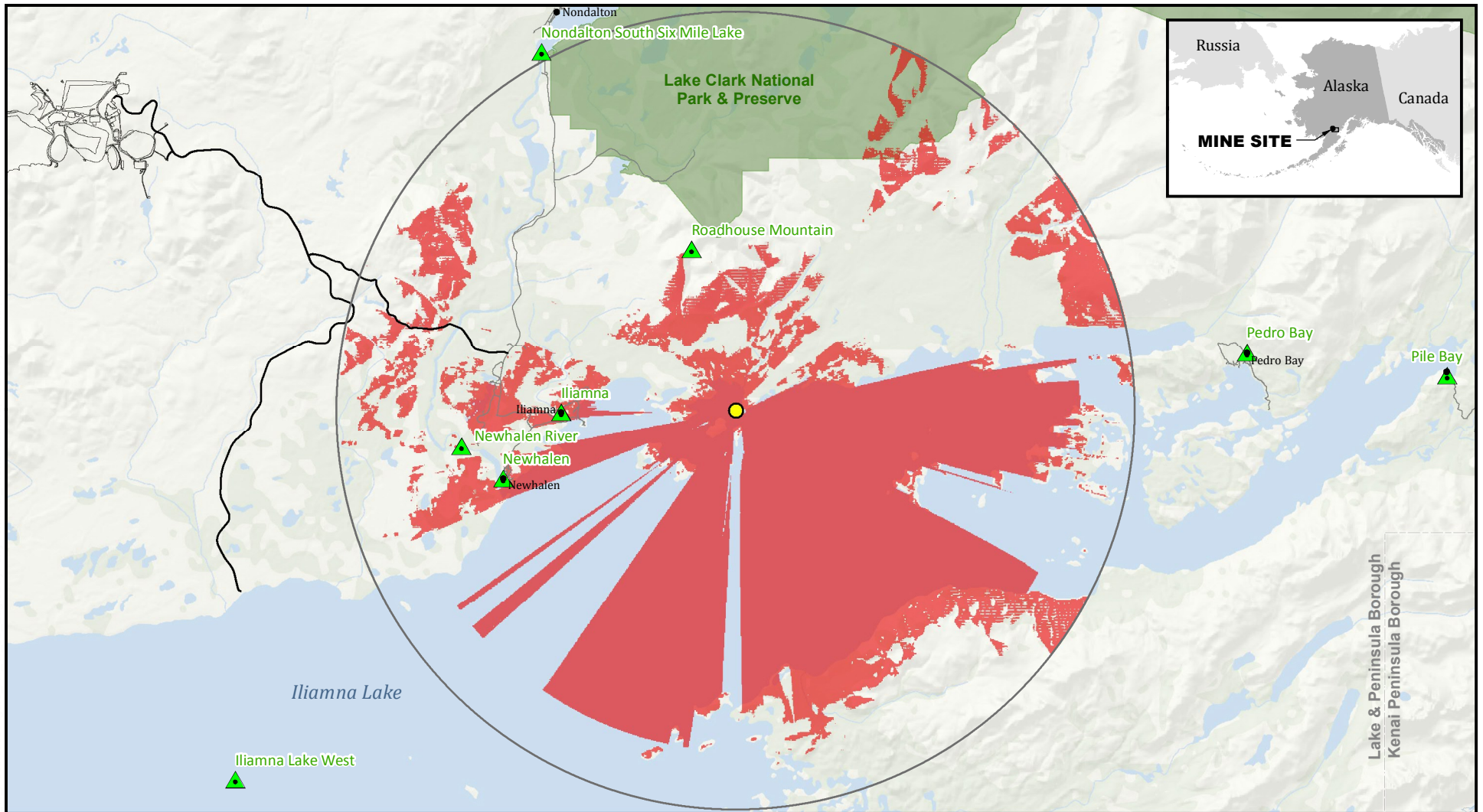
- Local Roads
- Borough Boundary
- National Park
- State Game Refuge/Sanctuary

Note: The visible area for the land cover viewshed model is also visible in the bare earth model.

**PEBBLE PROJECT EIS**

**ALTERNATIVE 1 PORT ACCESS ROAD VIEWSHED ANALYSIS**

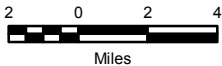
**FIGURE K4.11-8**



Sources: HDR 2018-RF1 034a



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**Viewshed Analysis**

- Key Observation Points
- Viewshed\*
- Analysis Area (15 mi radius)

**Alternative 1**

- Mine Site

- Transportation Corridor

**Alternative 2**

- Eagle Bay Terminal Maintenance Shop

**Other Features**

- Local Roads
- Borough Boundary

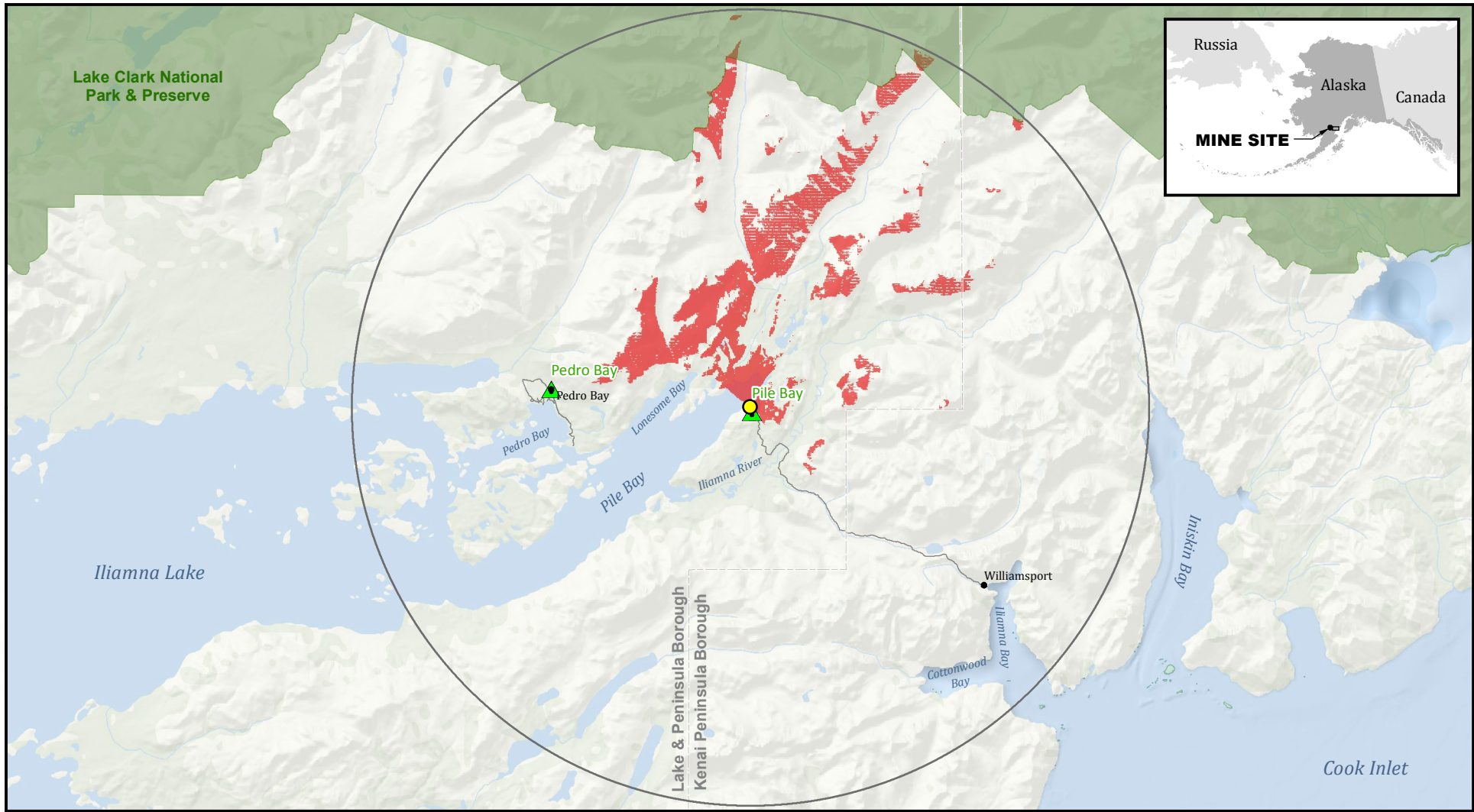
- National Park

\*Viewshed and visibility potential are based on base-earth digital elevation data and do not account for screening effects from vegetation. Actual visibility may be substantially less.

PEBBLE PROJECT EIS

**ALTERNATIVE 2 EAGLE BAY FERRY TERMINAL VIEWSHED ANALYSIS**

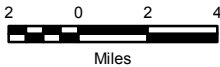
FIGURE K4.11-9



Sources: HDR 2018-RF1 034a



US Army Corps of Engineers®



**Viewshed Analysis**

- Key Observation Points
- Viewshed\*
- Analysis Area (15 mi radius)

**Alternative 2**

- Pile Bay Ferry Terminal Maintenance Shop

**Other Features**

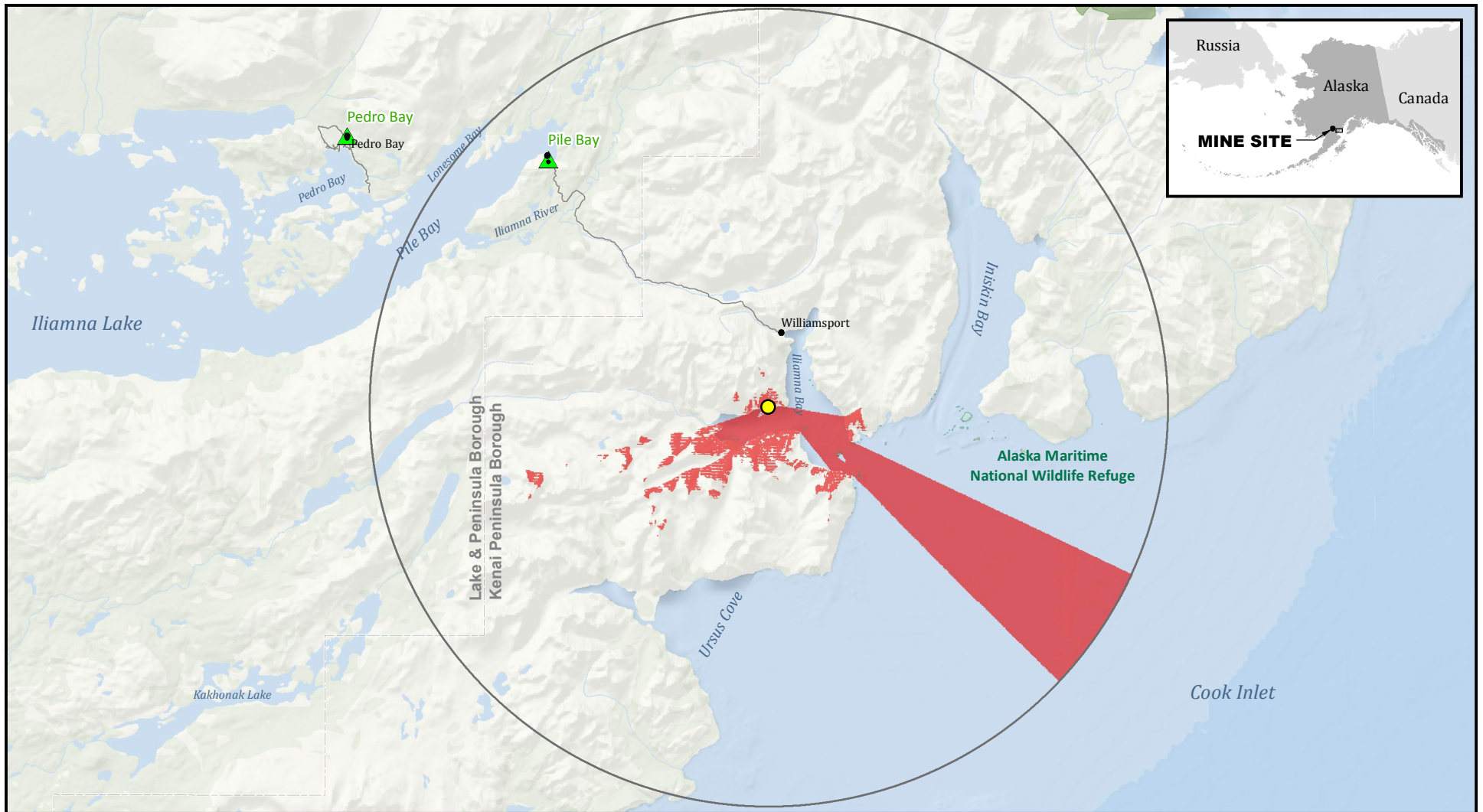
- Local Roads
- Borough Boundary
- National Park
- National Wildlife Refuge

\*Viewshed and visibility potential are based on base-earth digital elevation data and do not account for screening effects from vegetation. Actual visibility may be substantially less.

PEBBLE PROJECT EIS

**ALTERNATIVE 2 PILE BAY FERRY TERMINAL VIEWSHED ANALYSIS**

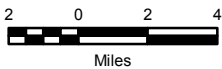
FIGURE K4.11-10



Sources: HDR 2018-RFI 034a



**US Army Corps of Engineers**



**Viewshed Analysis**

- Key Observation Points
- Viewshed\*
- Analysis Area (15 mi radius)

**Alternative 2**

- Diamond Point Port Power Generator Building

**Other Features**

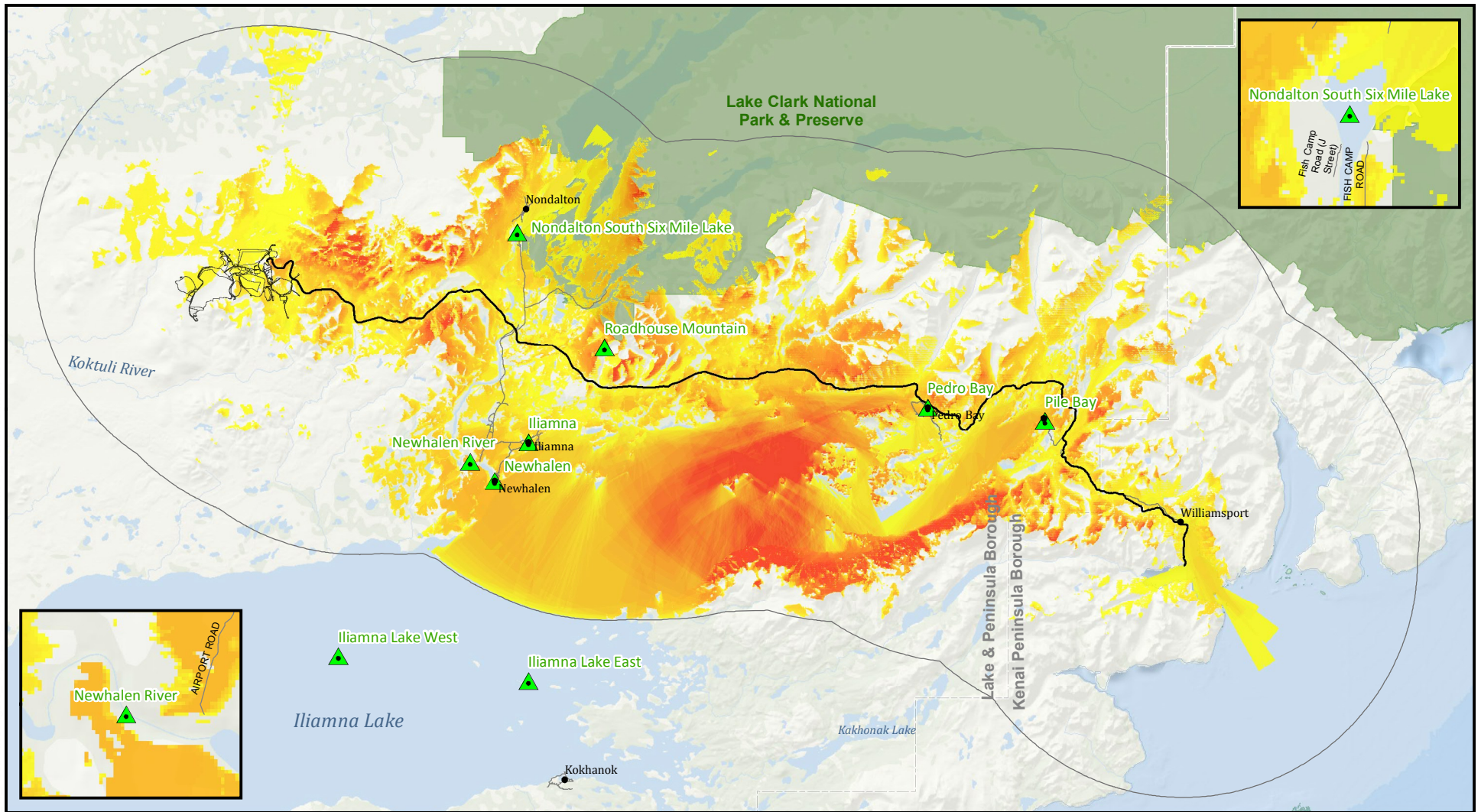
- Local Roads
- Borough Boundary
- National Park
- National Wildlife Refuge

\*Viewshed and visibility potential are based on base-earth digital elevation data and do not account for screening effects from vegetation. Actual visibility may be substantially less.

**PEBBLE PROJECT EIS**

**ALTERNATIVE 2 DIAMOND POINT PORT VIEWSHED ANALYSIS**

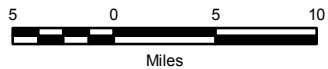
**FIGURE K4.11-11**



Sources: HDR 2018-RF1 034a



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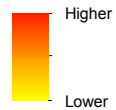
**Viewshed Analysis**

- Key Observation Points
- Analysis Area (15 mi radius)

**Alternative 3**

- Mine Access Road Corridor

**Potential Visibility Index**



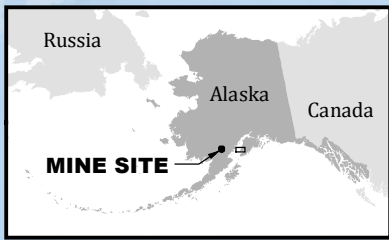
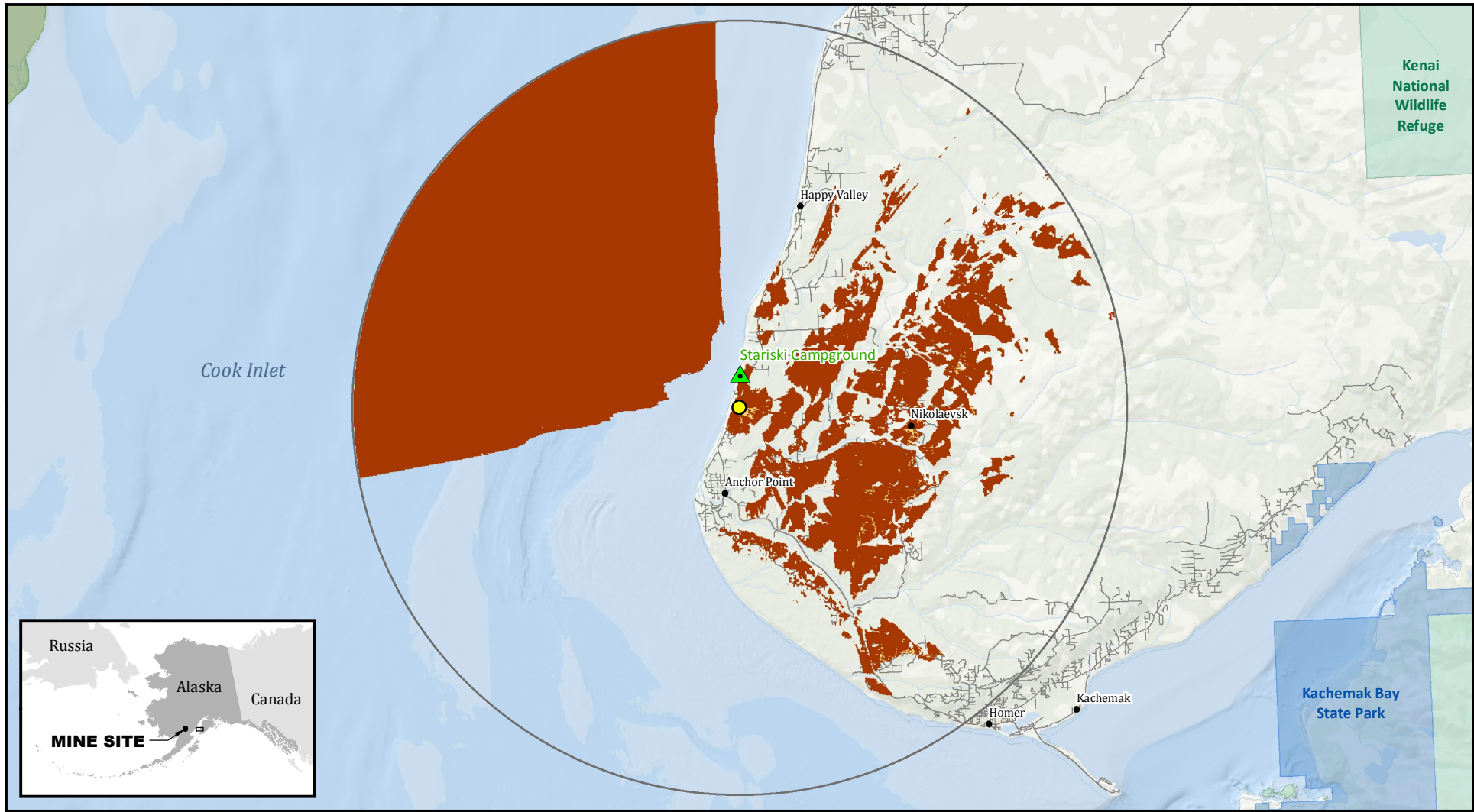
**Other Features**

- Local Roads
- Borough Boundary
- National Park

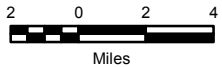
PEBBLE PROJECT EIS

**ALTERNATIVE 3 TRANSPORTATION CORRIDOR VIEWSHED ANALYSIS**

FIGURE K4.11-12



Sources: HDR 2018-RF1 034a



**Viewshed Analysis**

- Key Observation Points
- Visible Area/Land Cover
- Visible Area/Bare Earth
- Analysis Area (15 mi radius)

**Alternative 1**

- Transportation Corridor
- Compressor Station

**Other Features**

- Local Roads

**Legend**

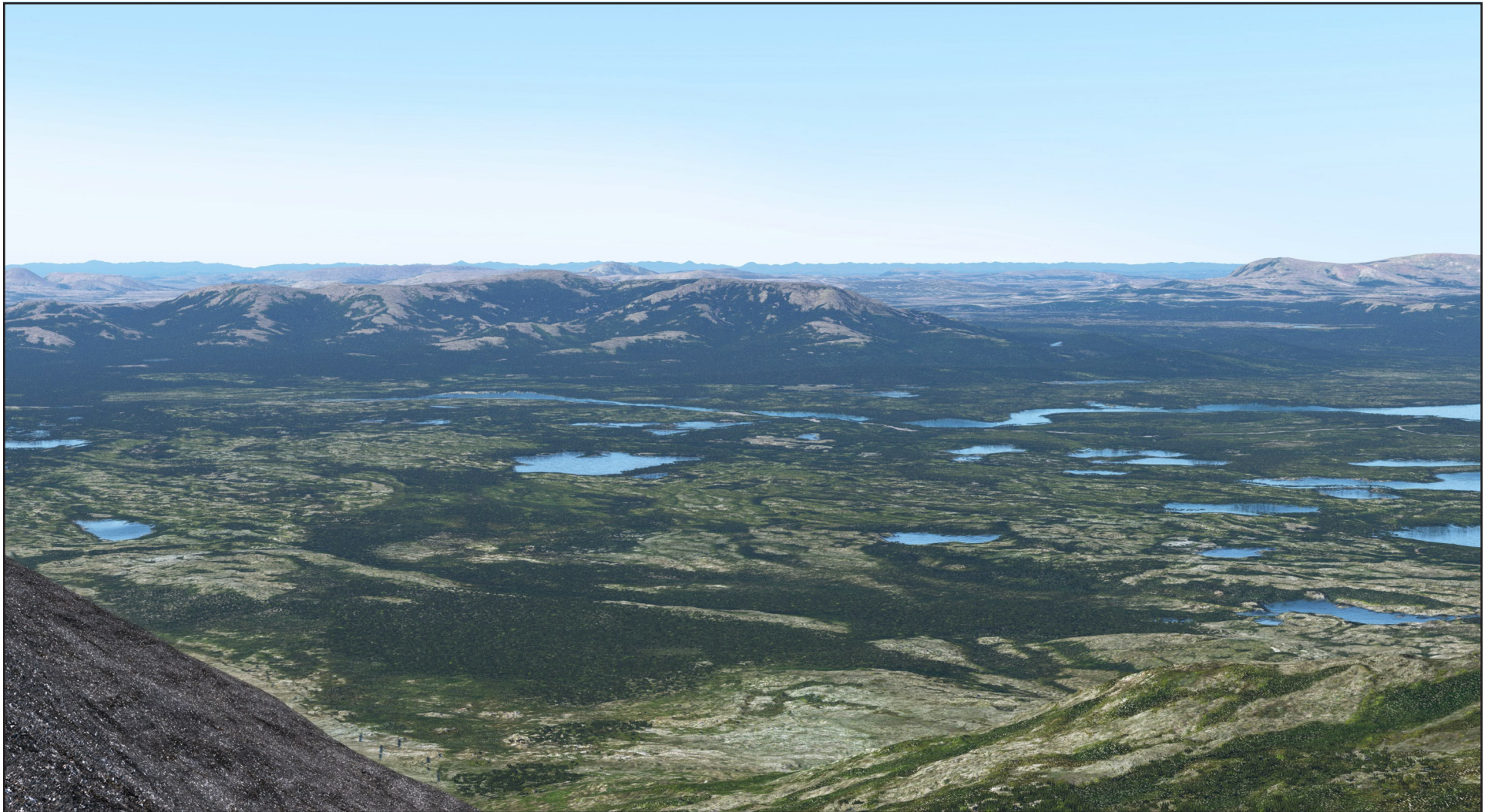
- Borough Boundary
- National Park
- National Wildlife Refuge
- Alaska State Park

Note: The visible area for the land cover viewshed model is also visible in the bare earth model.





PEBBLE PROJECT EIS

**KENAI COMPRESSOR STATION VIEWSHED ANALYSIS**

FIGURE K4.11-13



**Project Components**

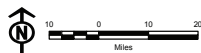
-  Project Features
-  Natural Gas Pipeline
-  Transportation Corridor
-  Known Observation Point

**Other Features**

-  Wild and Scenic River
-  State Game Refuge/Sanctuary
-  National Wildlife Refuge
-  National Park

**Simulation Information**

Viewing direction: West  
 Latitude: 59°50'41.62"N  
 Longitude: 154°41'56.69"W  
 Distance to project: 26 miles



Source: PLP 2018-RFI 034d.

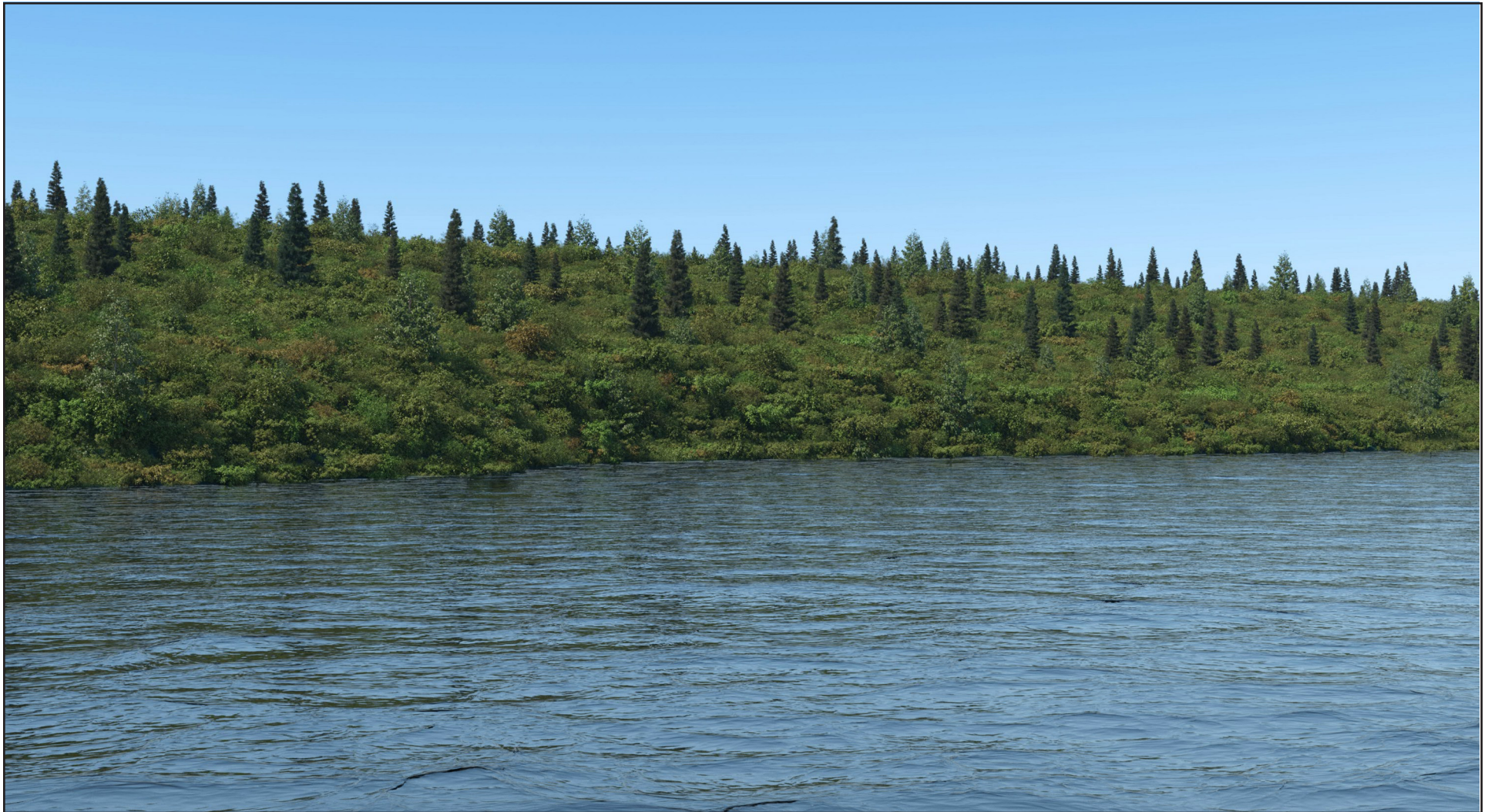


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


**PEBBLE PROJECT EIS**

**SIMULATION**  
 KOP: ROADHOUSE MOUNTAIN  
 WEST TOWARD MINE SITE

**FIGURE K4.11-14**



**Project Components**

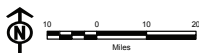
-  Project Features
-  Natural Gas Pipeline
-  Transportation Corridor
-  Known Observation Point

**Other Features**

-  Wild and Scenic River
-  State Game Refuge/Sanctuary
-  National Wildlife Refuge
-  National Park

**Simulation Information**

Viewing direction: Northwest  
 Latitude: 59°44'11.12"N  
 Longitude: 154°56'40.89"W  
 Distance to project: 23 miles



Source: PLP 2018-RFI 034d.



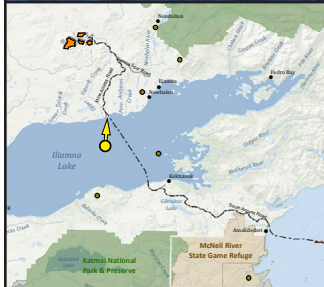
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**PEBBLE PROJECT EIS**





**SIMULATION**  
 KOP: NEWHALEN RIVER  
 NORTHWEST TOWARD MINE SITE  
 (NO FACILITIES VISIBLE)

**FIGURE K4.11-15**





**Project Components**

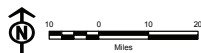
-  Project Features
-  Natural Gas Pipeline
-  Transportation Corridor
-  Known Observation Point

**Other Features**

-  Wild and Scenic River
-  State Game Refuge/Sanctuary
-  National Wildlife Refuge
-  National Park

**Simulation Information**

Viewing direction: North  
 Latitude: 59°33'12.64"N  
 Longitude: 155°10'52.56"W  
 Distance to project: 29 miles



Source: PLP 2018-RFI 034d.

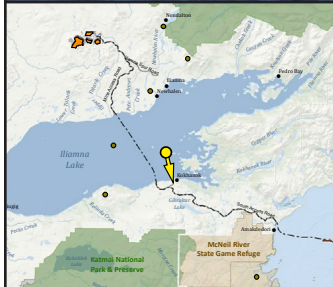


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


**PEBBLE PROJECT EIS**

**SIMULATION**  
 KOP: ILIAMNA LAKE WEST  
 NORTH TOWARD  
 NORTH FERRY TERMINAL

**FIGURE K4.11-16**



**Project Components**

-  Project Features
-  Natural Gas Pipeline
-  Transportation Corridor
-  Known Observation Point

**Other Features**

-  Wild and Scenic River
-  State Game Refuge/Sanctuary
-  National Wildlife Refuge
-  National Park

**Simulation Information**

Viewing direction: South  
 Latitude: 59°31'58.50"N  
 Longitude: 154°49'57.36"W  
 Distance to project: 35 miles



Source: PLP 2018-RFI 034d.

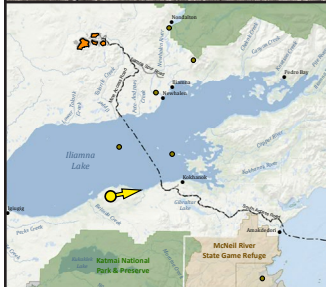


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


**PEBBLE PROJECT EIS**

**SIMULATION**  
 KOP: ILIAMNA LAKE EAST  
 SOUTH TOWARD  
 SOUTH FERRY TERMINAL

**FIGURE K4.11-17**



**Project Components**

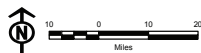
-  Project Features
-  Natural Gas Pipeline
-  Transportation Corridor
-  Known Observation Point

**Other Features**

-  Wild and Scenic River
-  State Game Refuge/Sanctuary
-  National Wildlife Refuge
-  National Park

**Simulation Information**

Viewing direction: East  
 Latitude: 59°23'24.48"N  
 Longitude: 155°13'40.75"W  
 Distance to project: 40 miles



Source: PLP 2018-RFI 034d.



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of Engineers®**





**PEBBLE PROJECT EIS**

**SIMULATION**  
 KOP: BIG MOUNTAIN  
 EAST TOWARD  
 SOUTH FERRY TERMINAL

**FIGURE K4.11-18**



**Project Components**

-  Project Features
-  Natural Gas Pipeline
-  Transportation Corridor
-  Known Observation Point

**Other Features**

-  Wild and Scenic River
-  State Game Refuge/Sanctuary
-  National Wildlife Refuge
-  National Park

**Simulation Information**

Viewing direction: North  
 Latitude: 59° 7' 19.11"N  
 Longitude: 154° 14' 20.34"W  
 Distance to project: 72 miles



Source: PLP 2018-RFI 034d.



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**PEBBLE PROJECT EIS**

**SIMULATION**  
 KOP: McNEIL RIVER BASE CAMP  
 NORTH TOWARD AMAKDEDORI  
 (NO FACILITIES VISIBLE)

**FIGURE K4.11-19**