



U.S. Department of the Interior
Bureau of Land Management

Willow Master Development Plan

Supplemental Environmental Impact Statement

FINAL

Volume 4: Appendix A.3

Figures 3.9.1 to 3.11.7B

January 2023

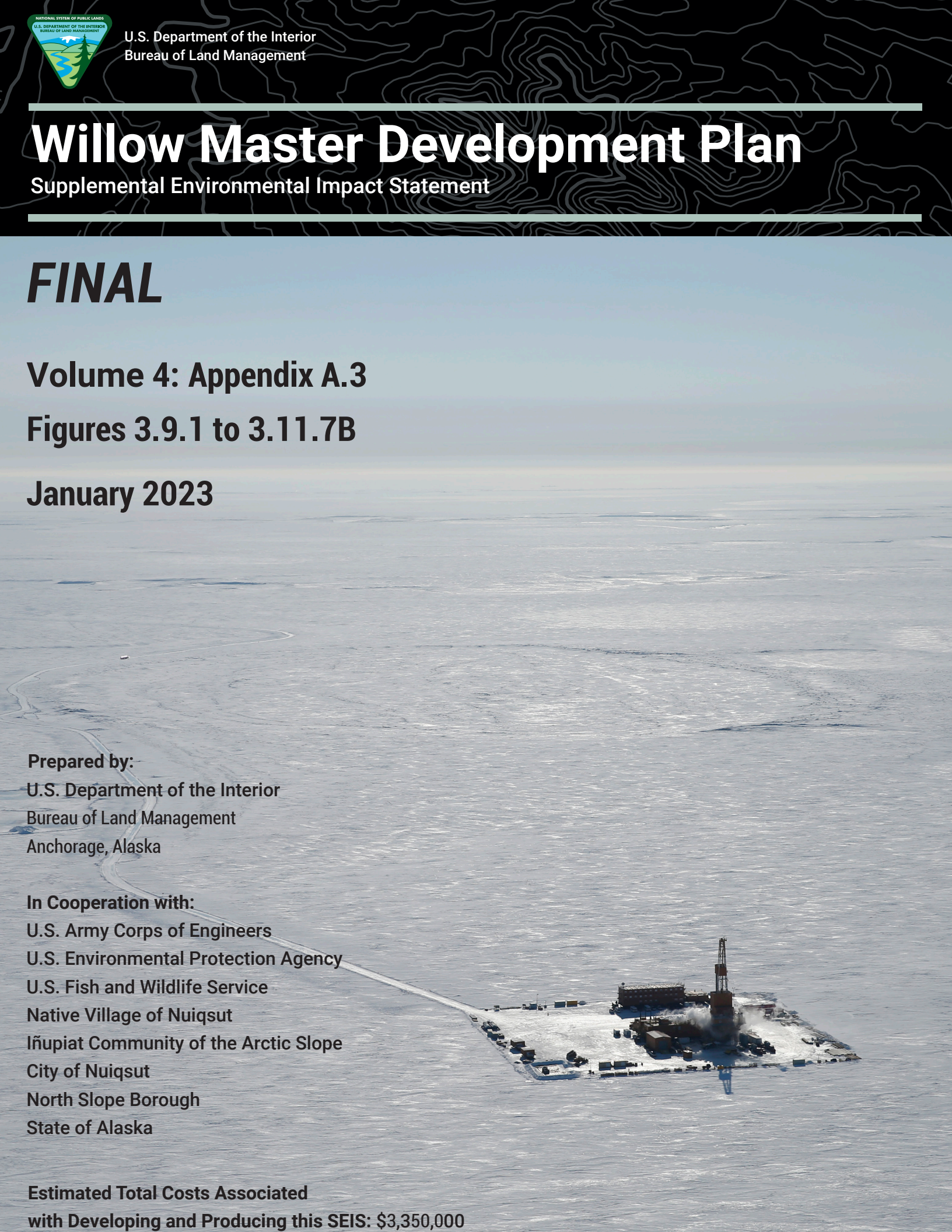
Prepared by:

U.S. Department of the Interior
Bureau of Land Management
Anchorage, Alaska

In Cooperation with:

U.S. Army Corps of Engineers
U.S. Environmental Protection Agency
U.S. Fish and Wildlife Service
Native Village of Nuiqsut
Iñupiat Community of the Arctic Slope
City of Nuiqsut
North Slope Borough
State of Alaska

**Estimated Total Costs Associated
with Developing and Producing this SEIS: \$3,350,000**



Mission

To sustain the health, diversity, and productivity of the public lands for the future use and enjoyment of present and future generations.

Cover Photo Illustration: North Slope Alaska oil rig during winter drilling.

Photo by: Judy Patrick, courtesy of ConocoPhillips.

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Willow Master Development Plan

Appendix A.3

Figures 3.9.1 to 3.11.7B

January 2023

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LIST OF FIGURES

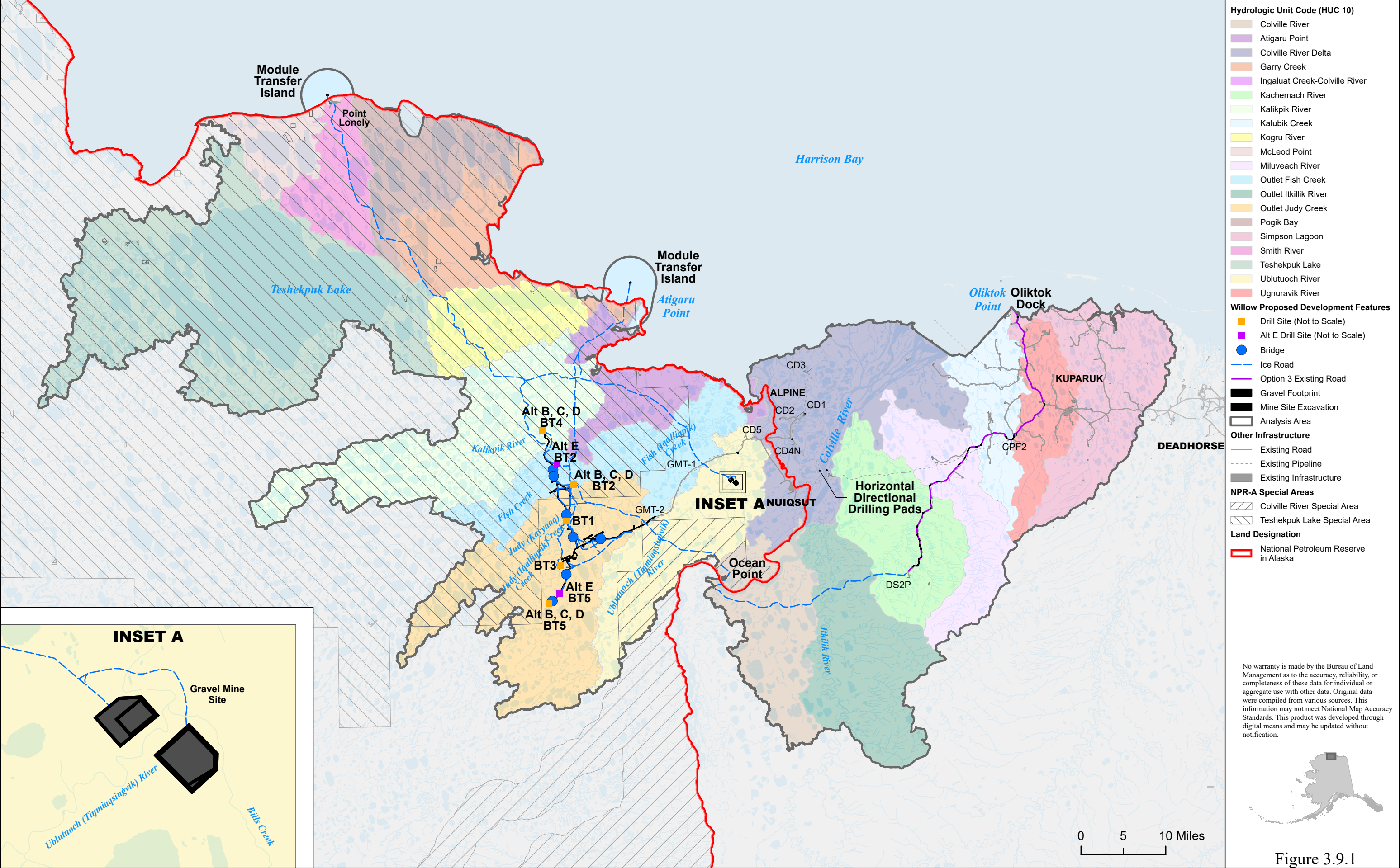
Figure 3.9.1. Analysis Area for Wetlands and Vegetation	1
Figure 3.9.2. Wetlands in the Analysis Area	2
Figure 3.9.3. Land Cover Classes in the Analysis Area	3
Figure 3.10.1. Analysis Area for Fish	4
Figure 3.10.2A. Fish Habitat in the Willow Area*	5
Figure 3.10.2B. Fish Habitat in the Willow Area*	6
Figure 3.10.3. Module Delivery Options Marine Activities.....	7
Figure 3.11.1. Bird Habitat Use and Analysis Area	8
Figure 3.11.2. Important Bird Areas.....	9
Figure 3.11.3. Spectacled Eider Pre-Breeding Density in the Analysis Area	10
Figure 3.11.4. Pre-Breeding Steller's Eider Locations in the Analysis Area	11
Figure 3.11.5. Yellow-Billed Loon Density and Nests in the Analysis Area.....	12
Figure 3.11.6A. Yellow-Billed Loon Density and Nests in the Willow Area*	13
Figure 3.11.6B. Yellow-Billed Loon Density and Nests in the Willow Area*	14
Figure 3.11.7A. Bird Habitat Use in the Willow Area*	15
Figure 3.11.7B. Polar Bear Potential Terrestrial Denning Habitat in the Willow Area*	16

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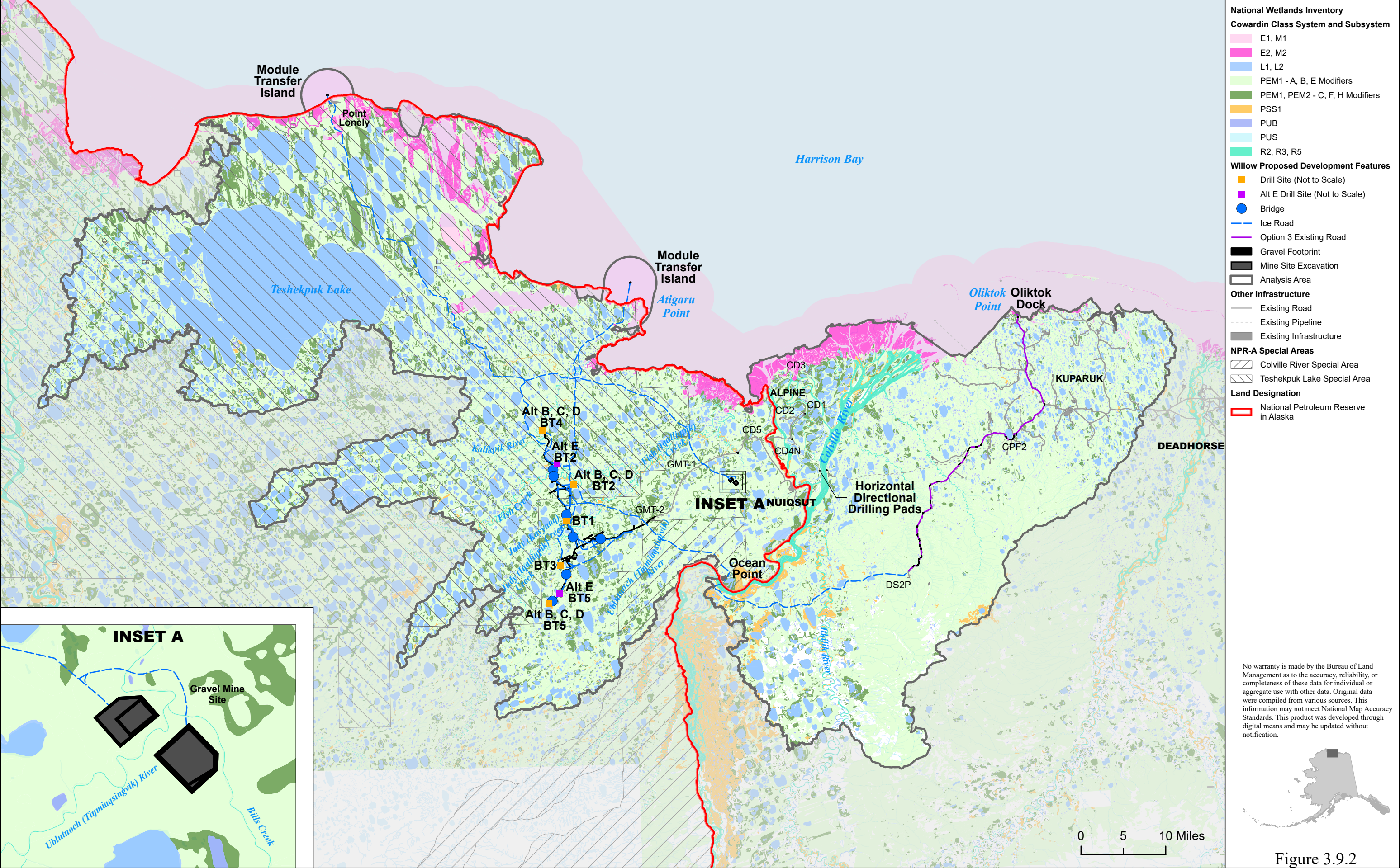
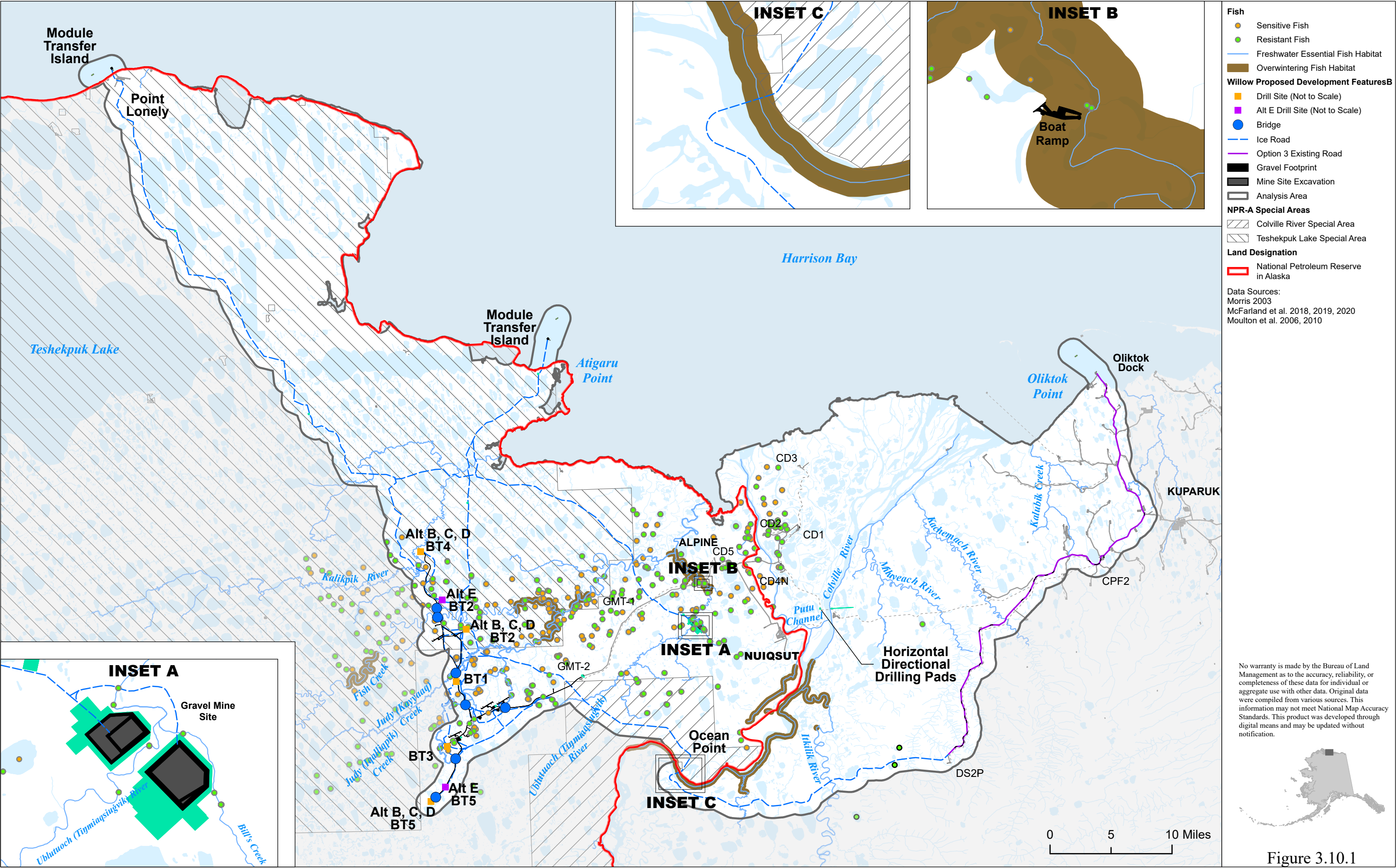
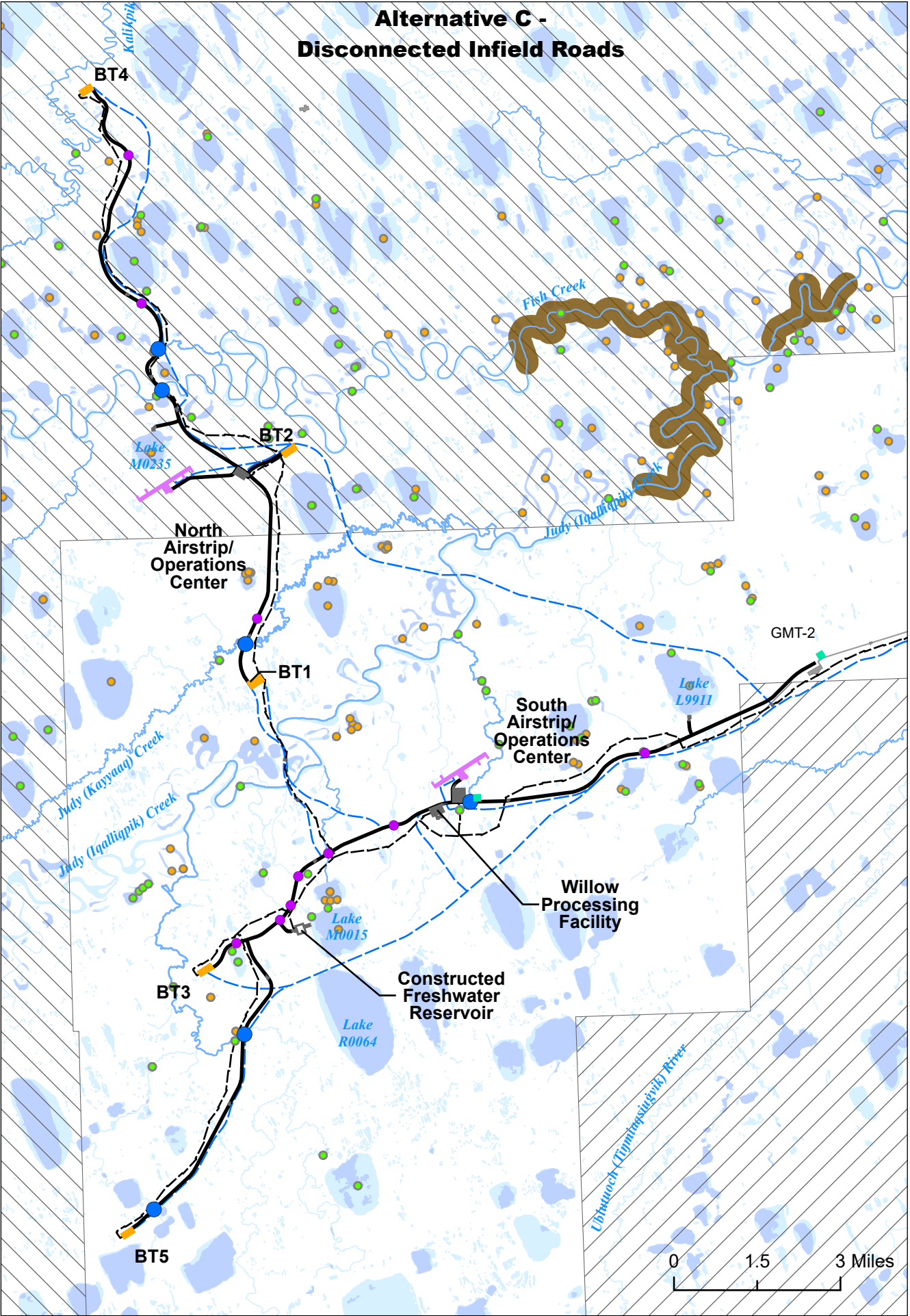
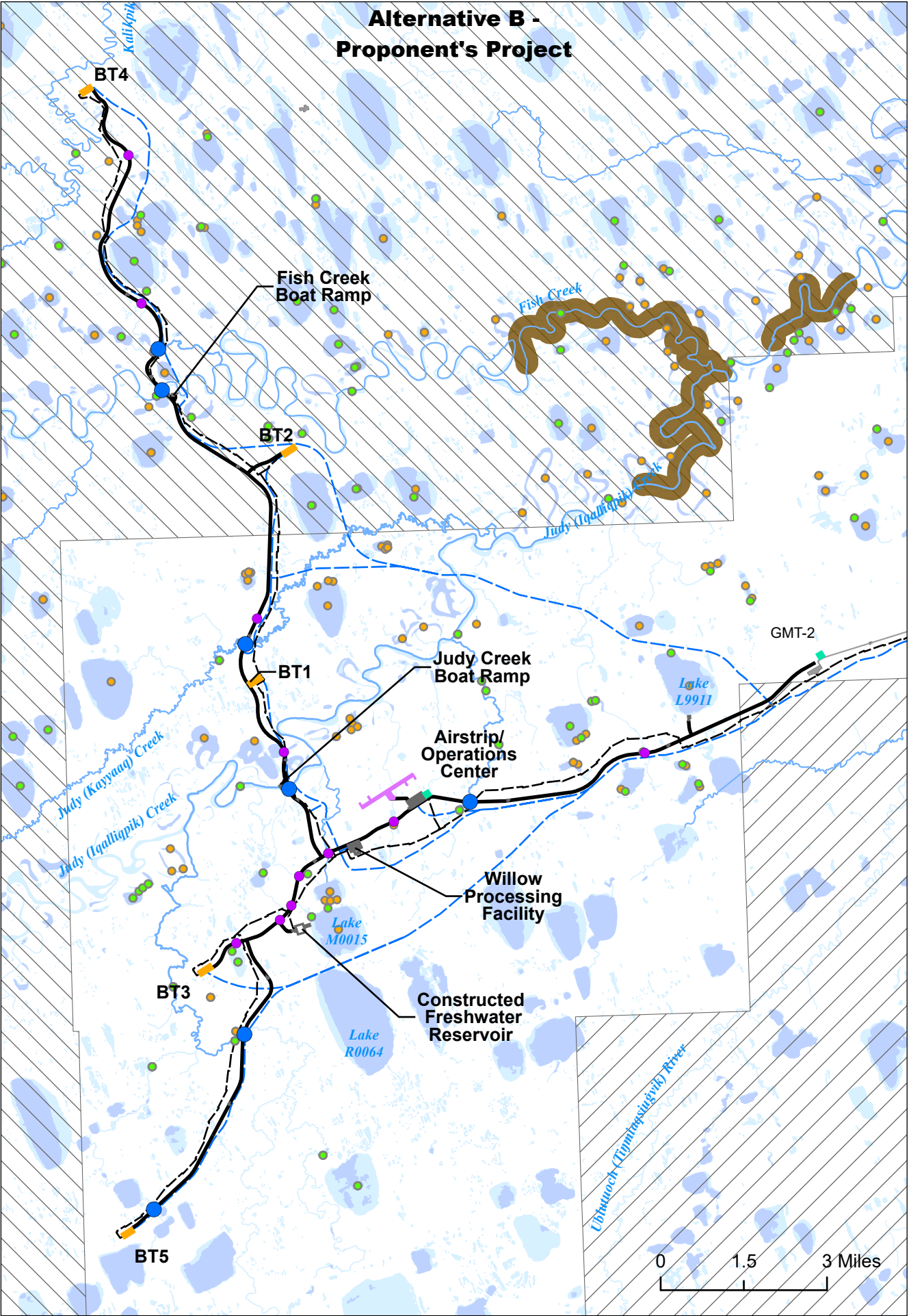


Figure 3.9.2



Figure 3.9.3





Fish

- Sensitive Fish
- Resistant Fish
- Freshwater Essential Fish Habitat
- Overwintering Fish Habitat
- Winter Liquid Water Availability

Willow Proposed Development Features

- Culvert Battery
- Bridge
- Gravel Road
- Pipeline
- Ice Road
- Airstrip
- Drill Site Pad
- Gravel Pad
- Ice Pad

Other Infrastructure

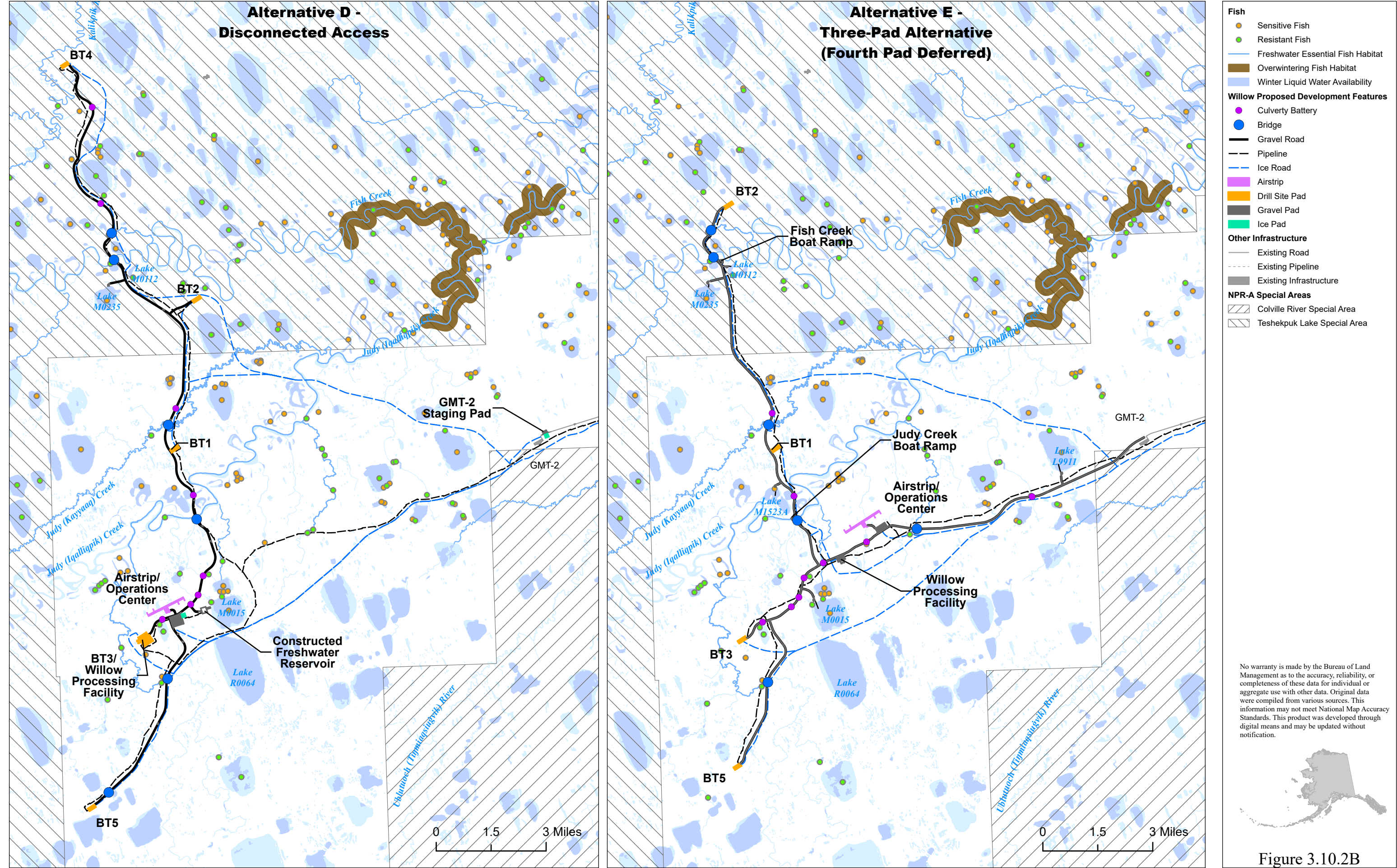
- Existing Road
- Existing Pipeline
- Existing Infrastructure

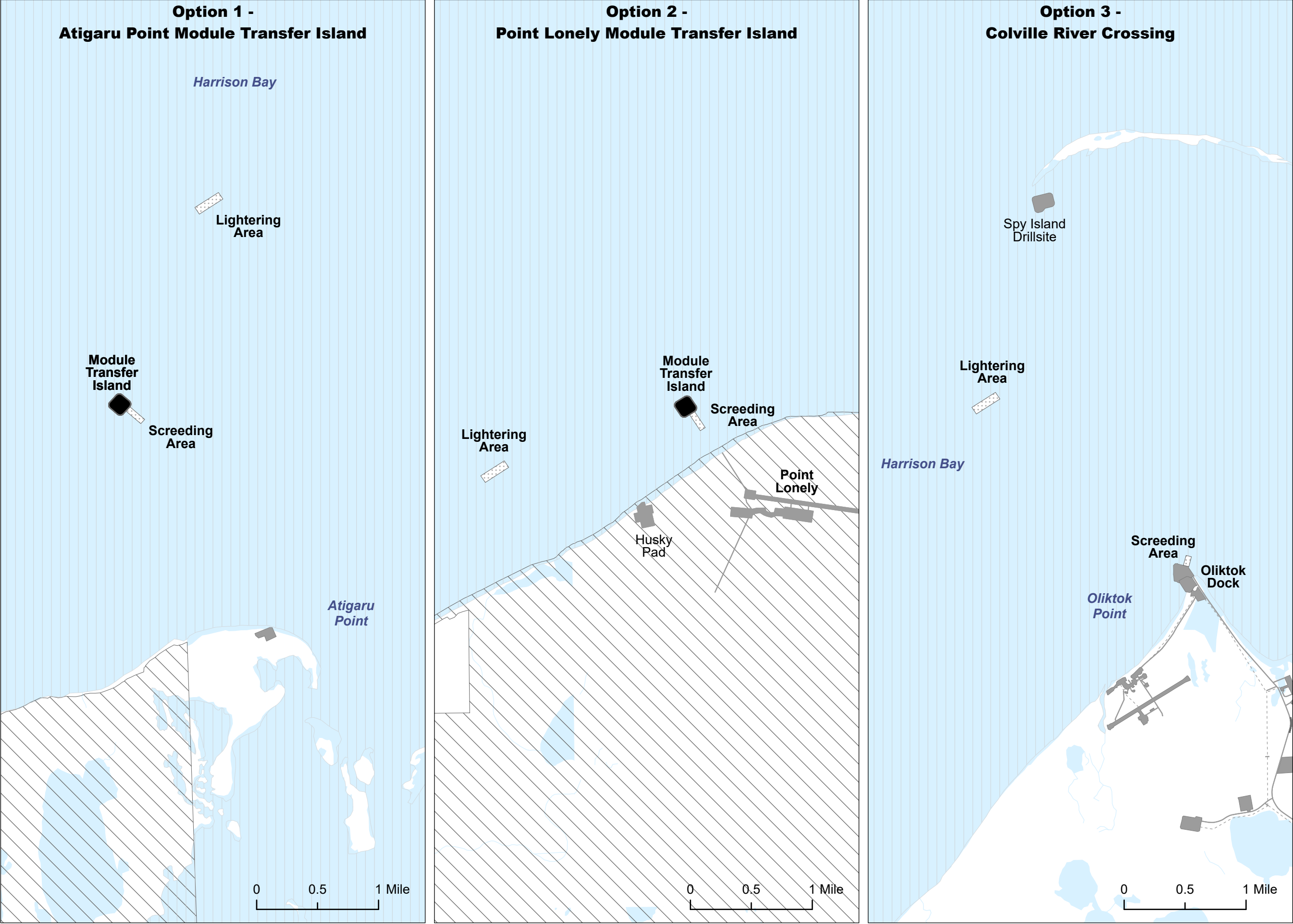
NPR-A Special Areas

- Colville River Special Area
- Teshekpuk Lake Special Area

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Figure 3.10.2A





Fish

- Marine Essential Fish Habitat

Willow Proposed Development Features

- Screeding

Other Infrastructure

- Existing Road
- Existing Pipeline
- Existing Infrastructure

NPR-A Special Areas

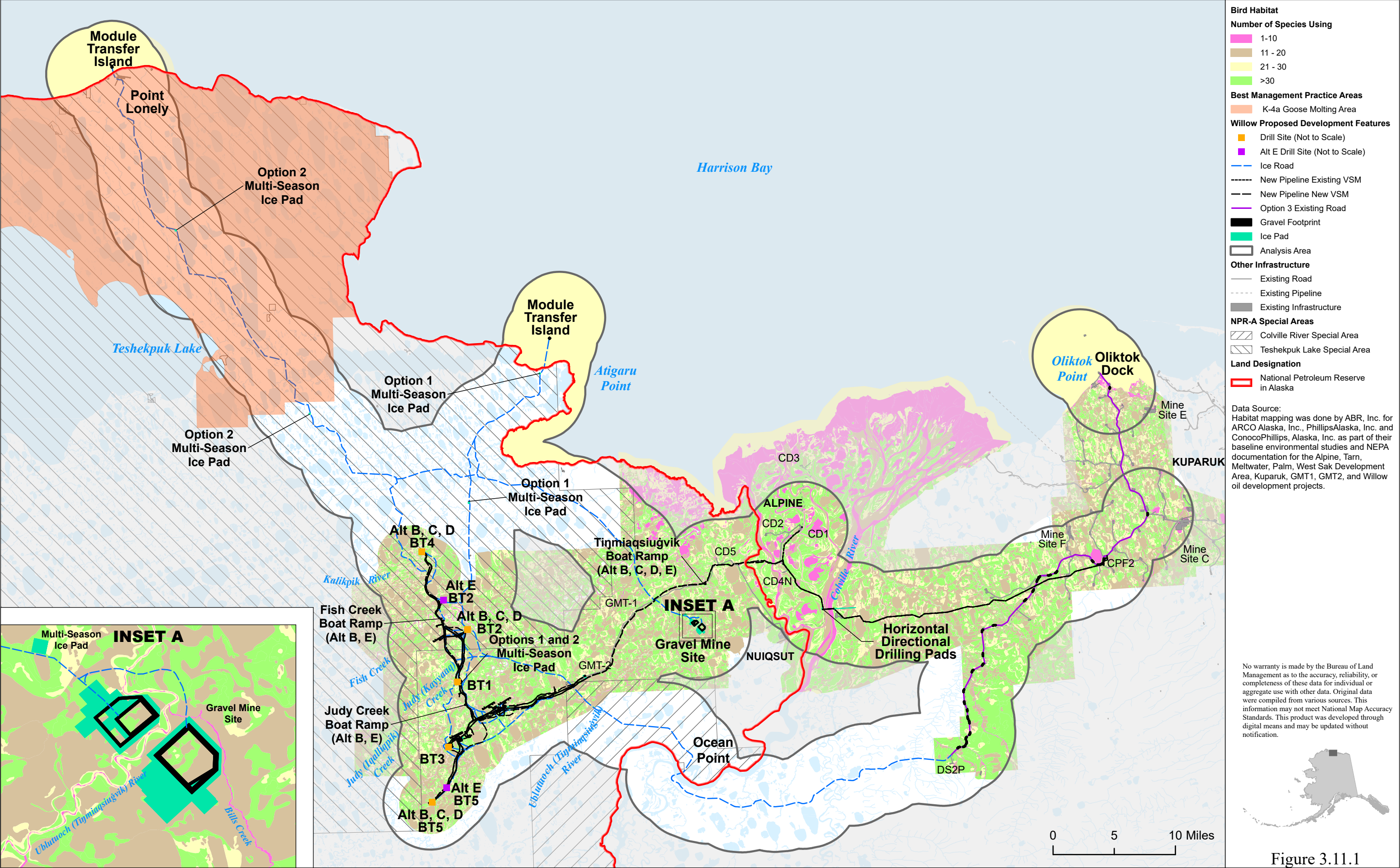
- Teshkepkuk Lake Special Area

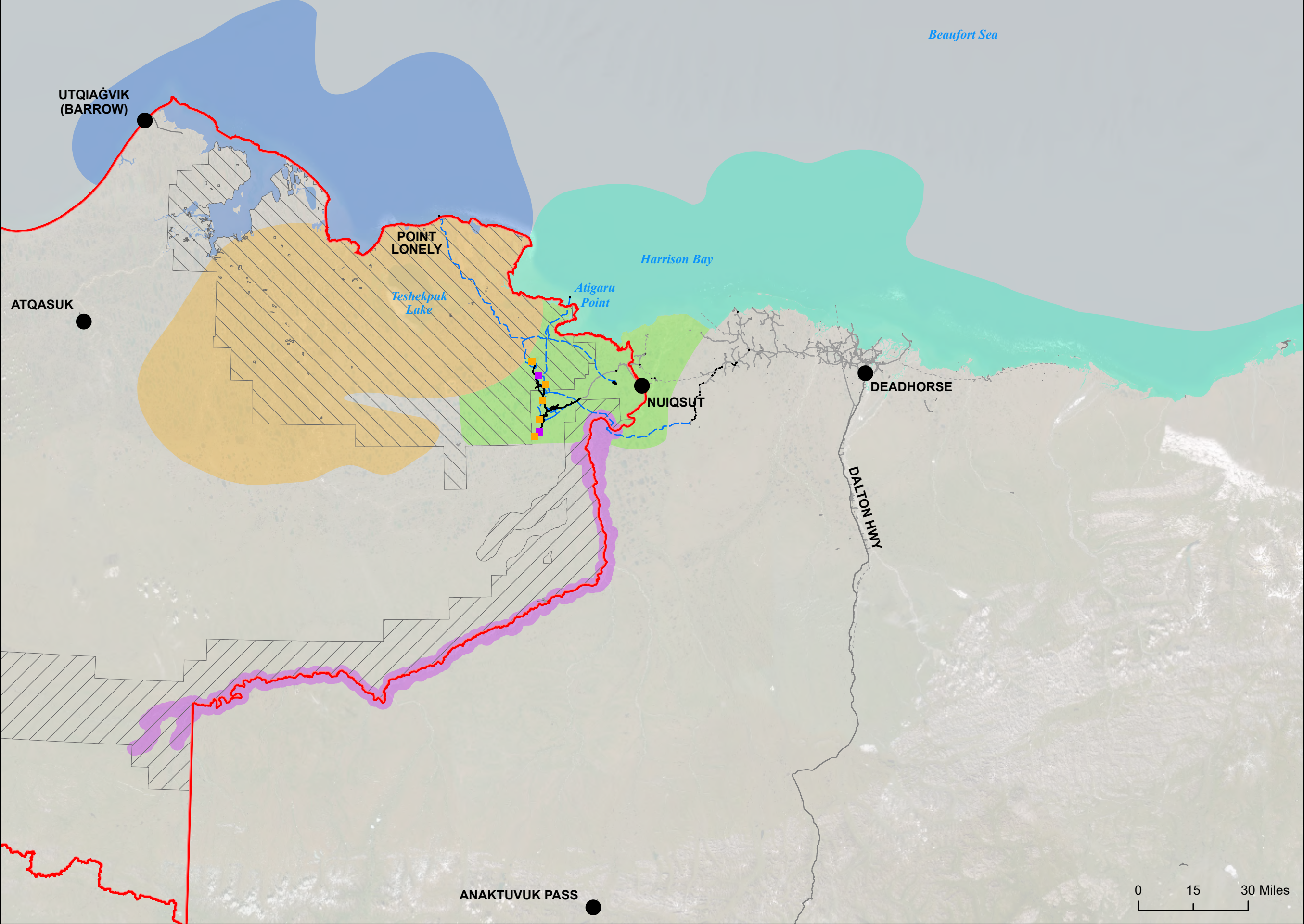
Note:
1. Oliktok Dock activity would occur under all action alternatives and Option 3: Colville River Crossing.

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Figure 3.10.3





Important Bird Areas of Alaska

- Barrow Canyon & Smith Bay
- Beaufort Sea Nearshore
- Colville River Delta
- Lower Colville River
- Teshekpuk Lake Area

Willow Proposed Development Features

- Drill Site (Not to Scale)
- Alt E Drill Site (Not to Scale)
- Ice Road
- Gravel Footprint

Other Infrastructure

- Existing Road
- Existing Pipeline
- Existing Infrastructure

NPR-A Special Areas

- Colville River Special Area
- Teshekpuk Lake Special Area

Land Designation

- National Petroleum Reserve in Alaska

Data Source:
Audubon Alaska (2020)

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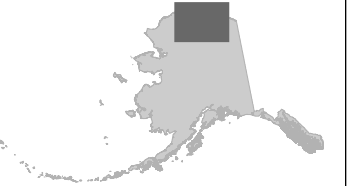
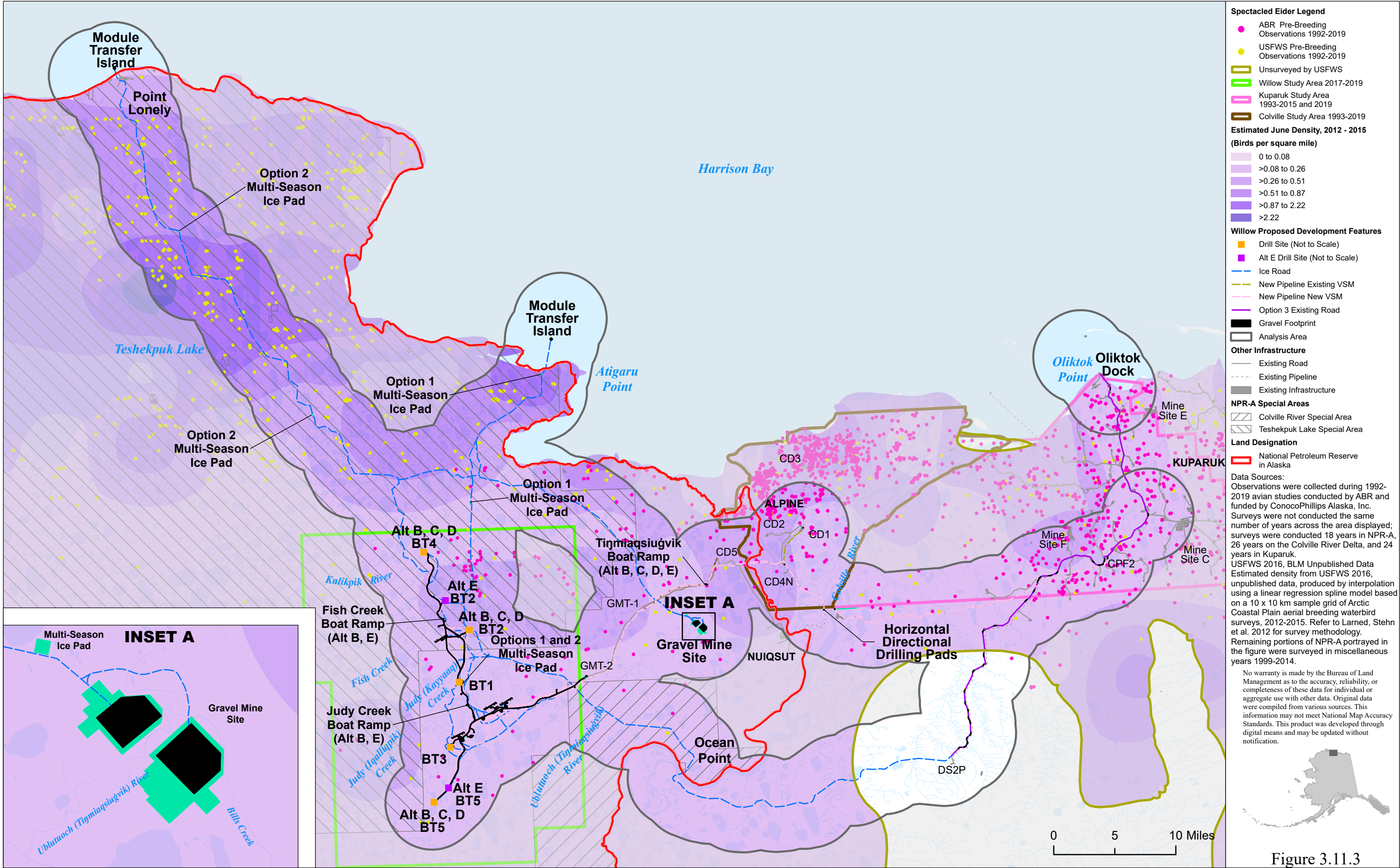
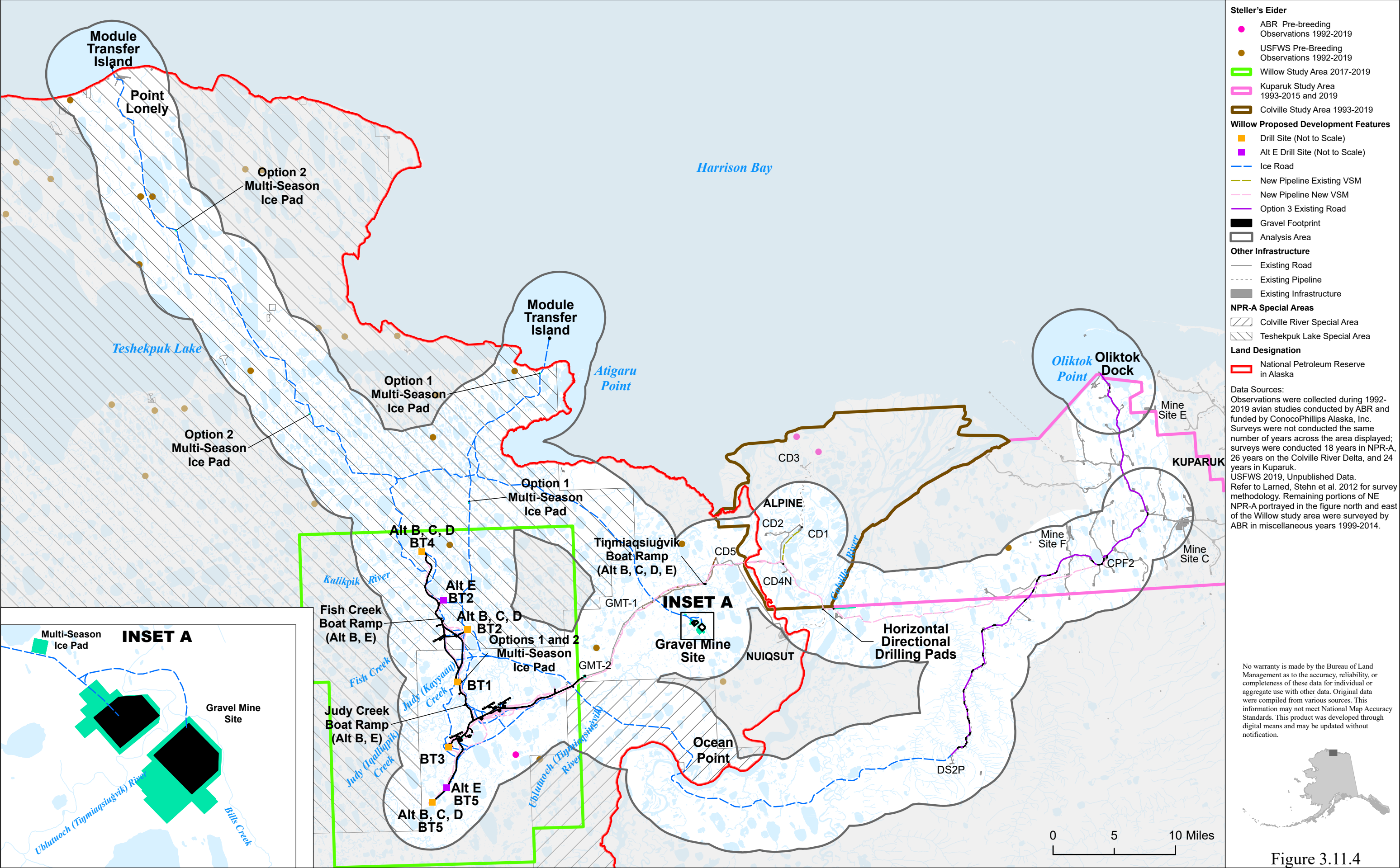
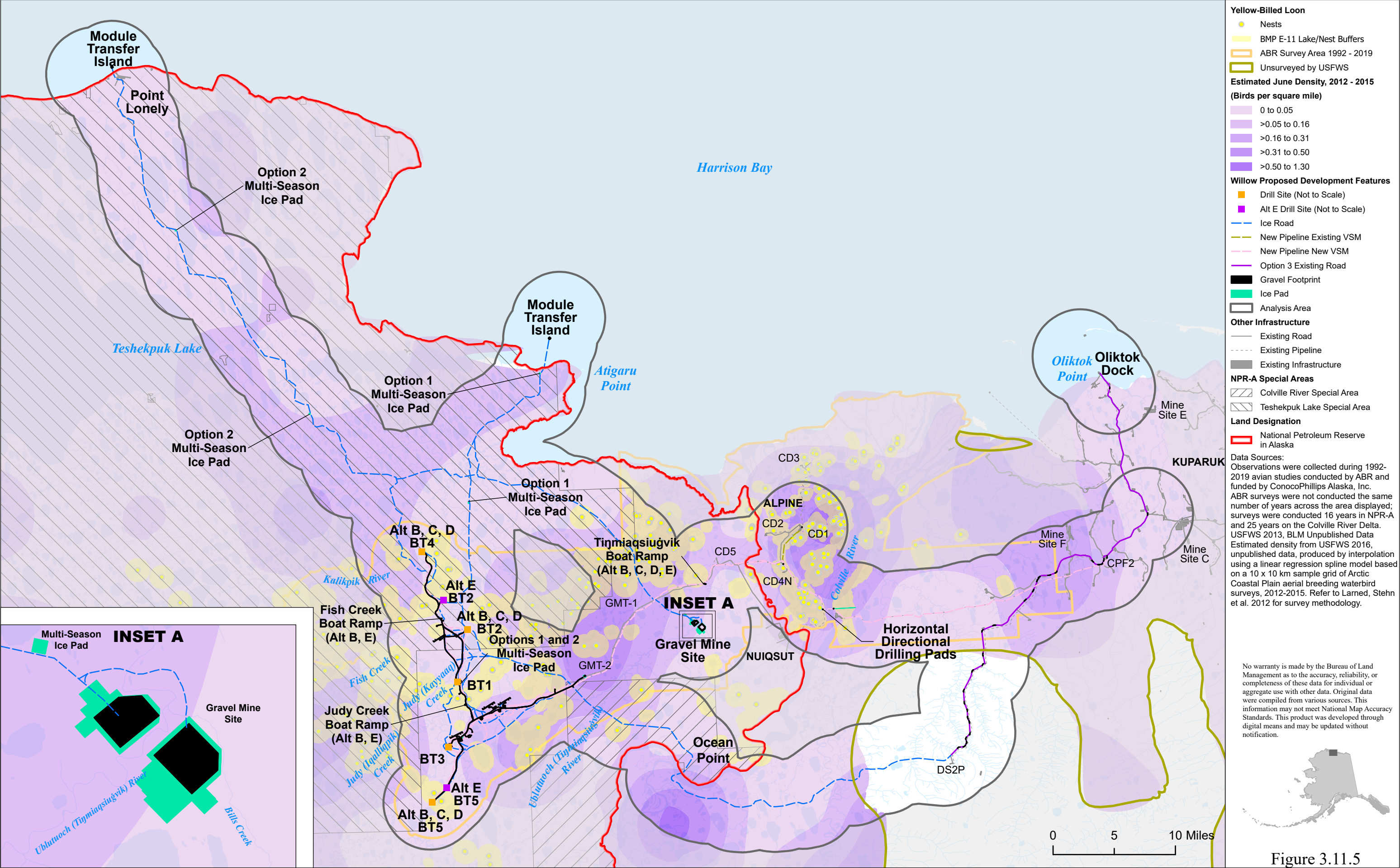
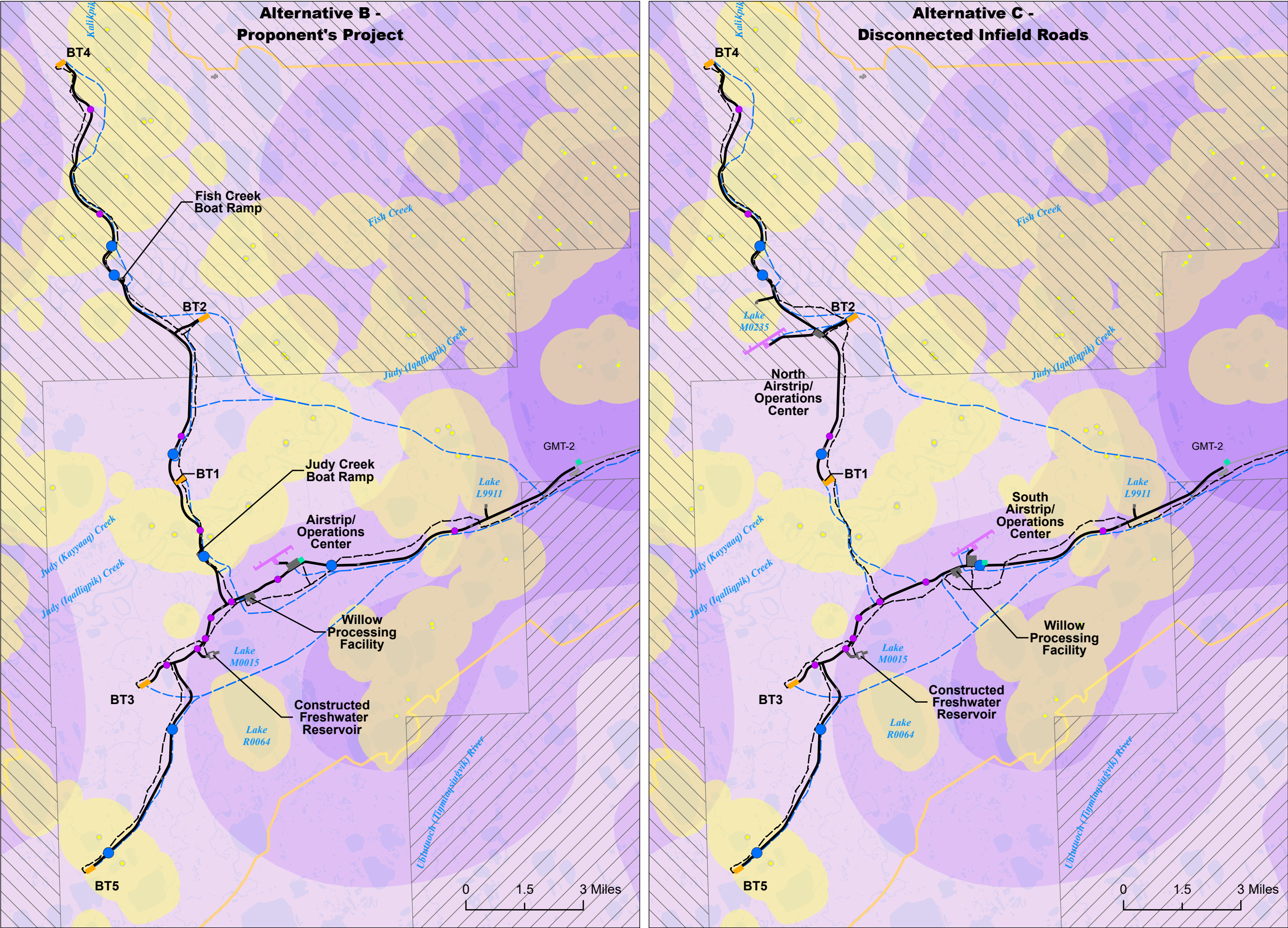


Figure 3.11.2



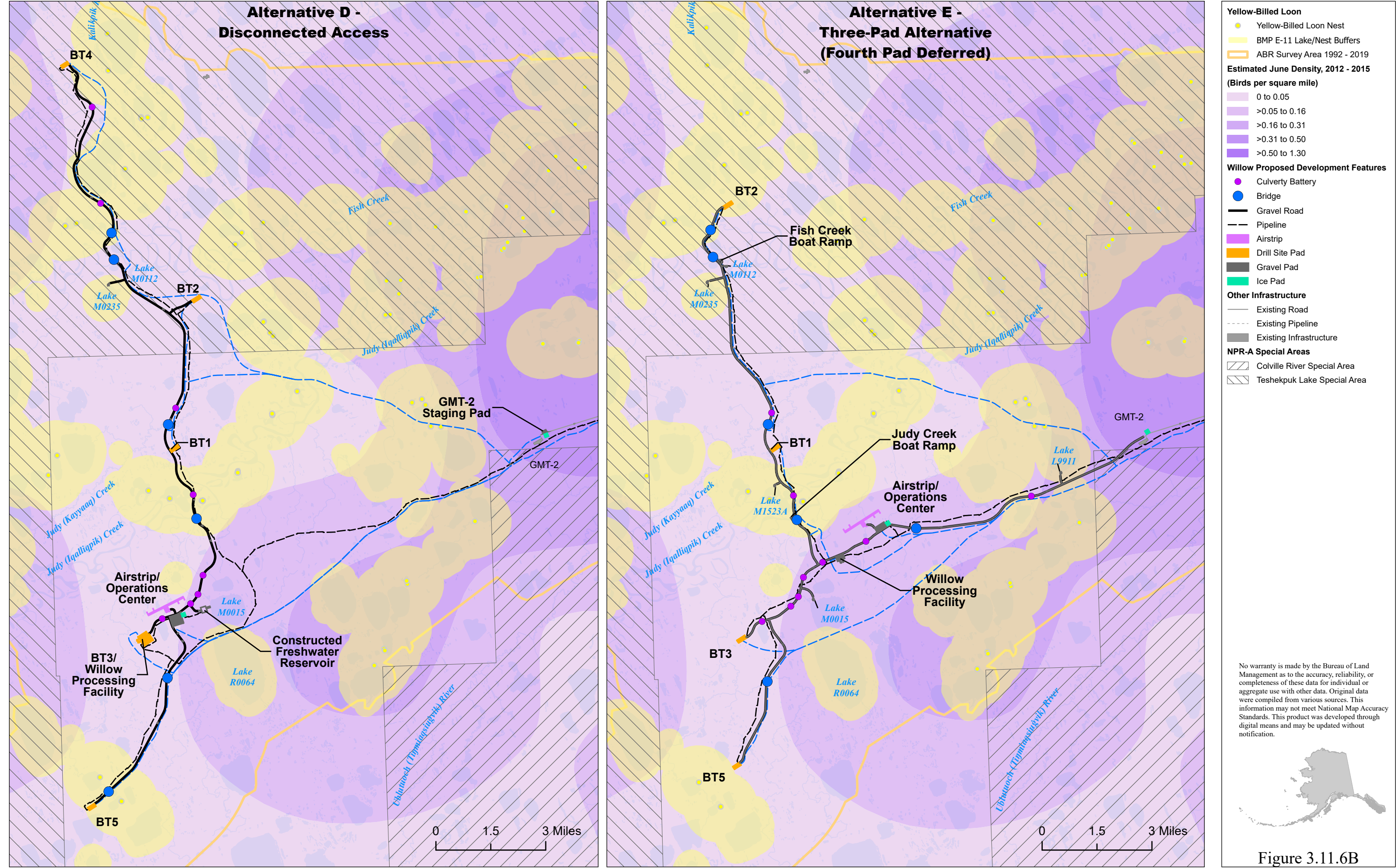


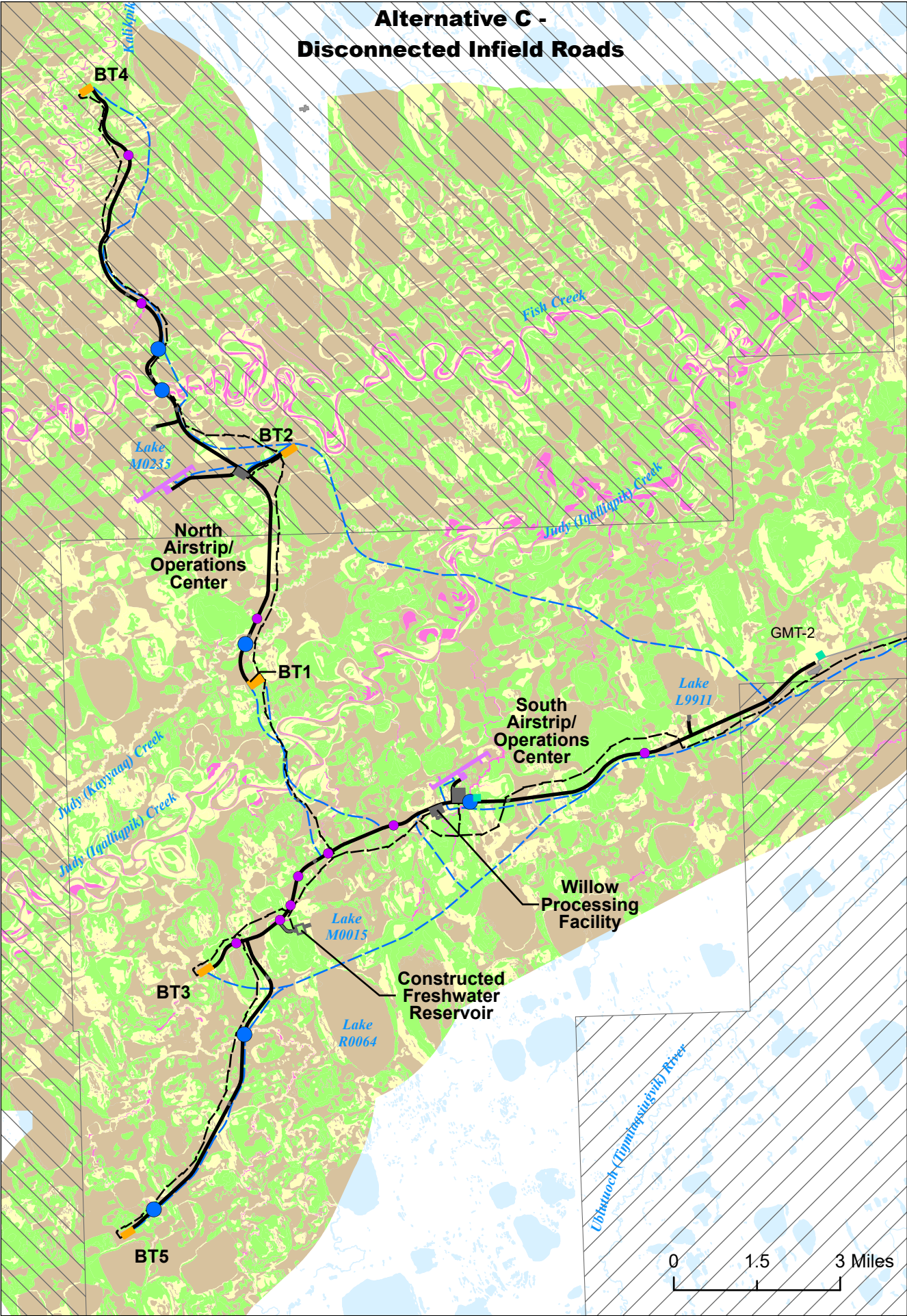
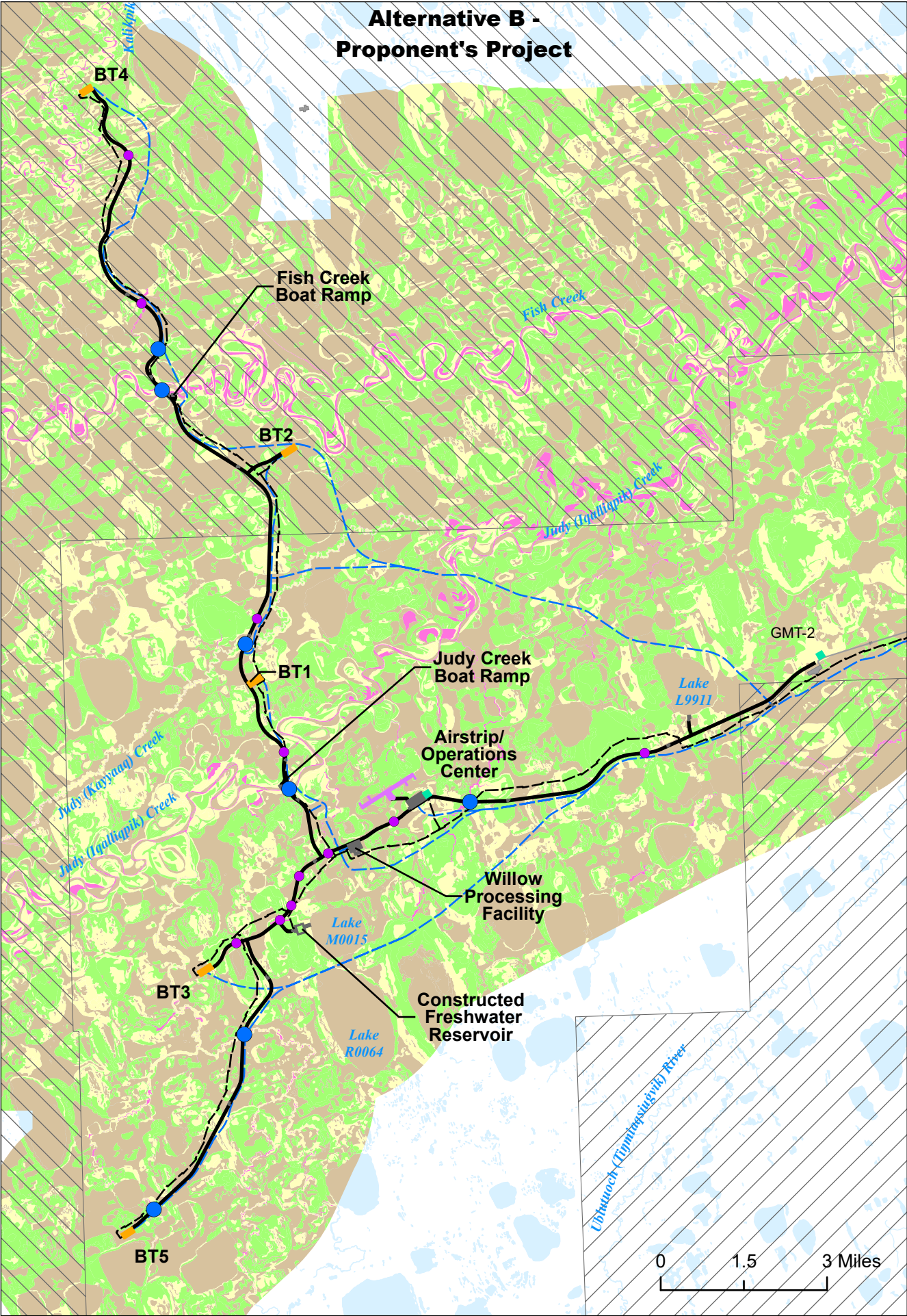




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Figure 3.11.6A





Bird Habitat

Number of Species Using

- 1-10
- 11 - 20
- 21 - 30
- >30

Willow Proposed Development Features

- Culvert Battery
- Bridge
- Gravel Road
- Pipeline
- Ice Road
- Airstrip
- Drill Site Pad
- Gravel Pad
- Ice Pad

Other Infrastructure

- Existing Road
- Existing Pipeline
- Existing Infrastructure

NPR-A Special Areas

- Colville River Special Area
- Teshkepkuk Lake Special Area

Note:
Preferred habitat has a significantly greater use than availability during pre-breeding or used during nesting; avoided habitat has a significantly less use than availability during pre-breeding, proportion to availability is not significantly preferred or avoided.

Data Source:
Habitat mapping was done by ABR, Inc. for ARCO Alaska, Inc., PhillipsAlaska, Inc. and ConocoPhillips, Alaska, Inc. as part of their baseline environmental studies and NEPA documentation for the Alpine, Tarn, Meltwater, Palm, West Sak Development Area, Kuparuk, GMT1, GMT2, and Willow oil development projects.

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Figure 3.11.7A

