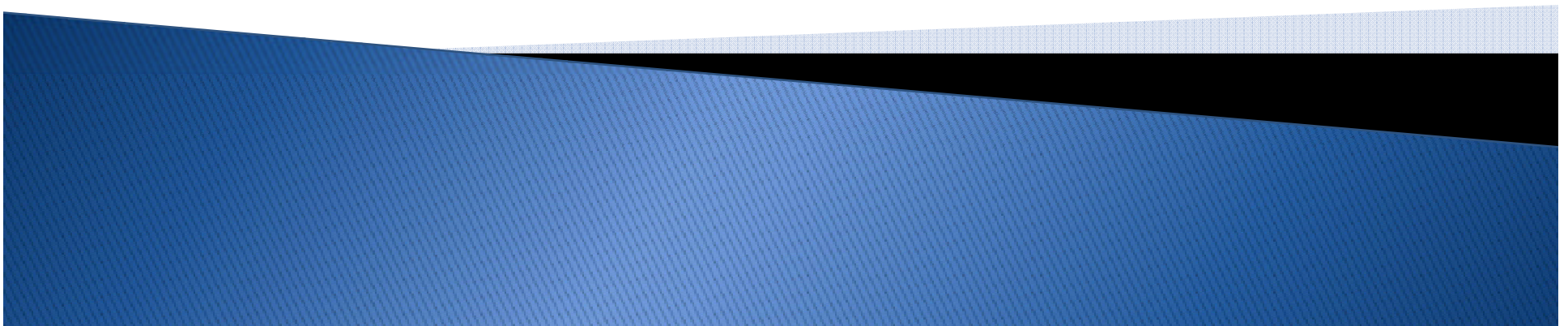


CASCADE CREEK HYDROELECTRIC PROJECT

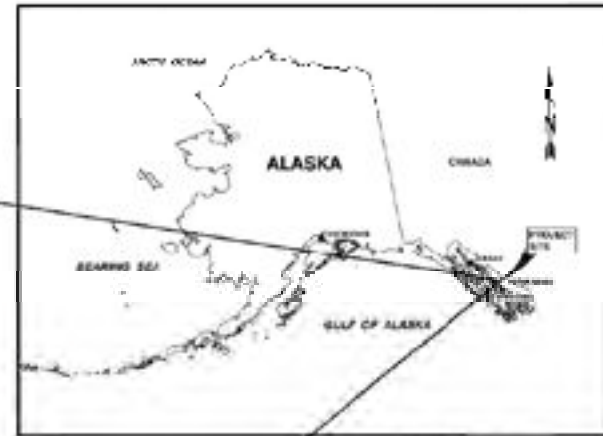
Thomas Bay, Alaska

Project Update
October 26, 2010





PROJECT VICINITY
NOT TO SCALE



PROJECT
LOCATION
NOT TO SCALE

▶ 1.0 PROJECT FEATURES

- Submerged Intake Structure at Swan Lake;
- Tunnel extending from Swan Lake to the Lower Tunnel Portal;
- Buried Penstock extending from the Lower Tunnel Portal to the Powerhouse;
- Powerhouse Consisting of Turbine Generator Units and Related Equipment;
- Tailrace Discharge into Thomas Bay;
- Marine Access Facility;
- Construction and Operation Housing Structures;
- 138-kV Overhead and Submarine Cable connecting to Scow Bay Substation.



▶ Aerial Photo of Thomas Bay & Patterson River Delta

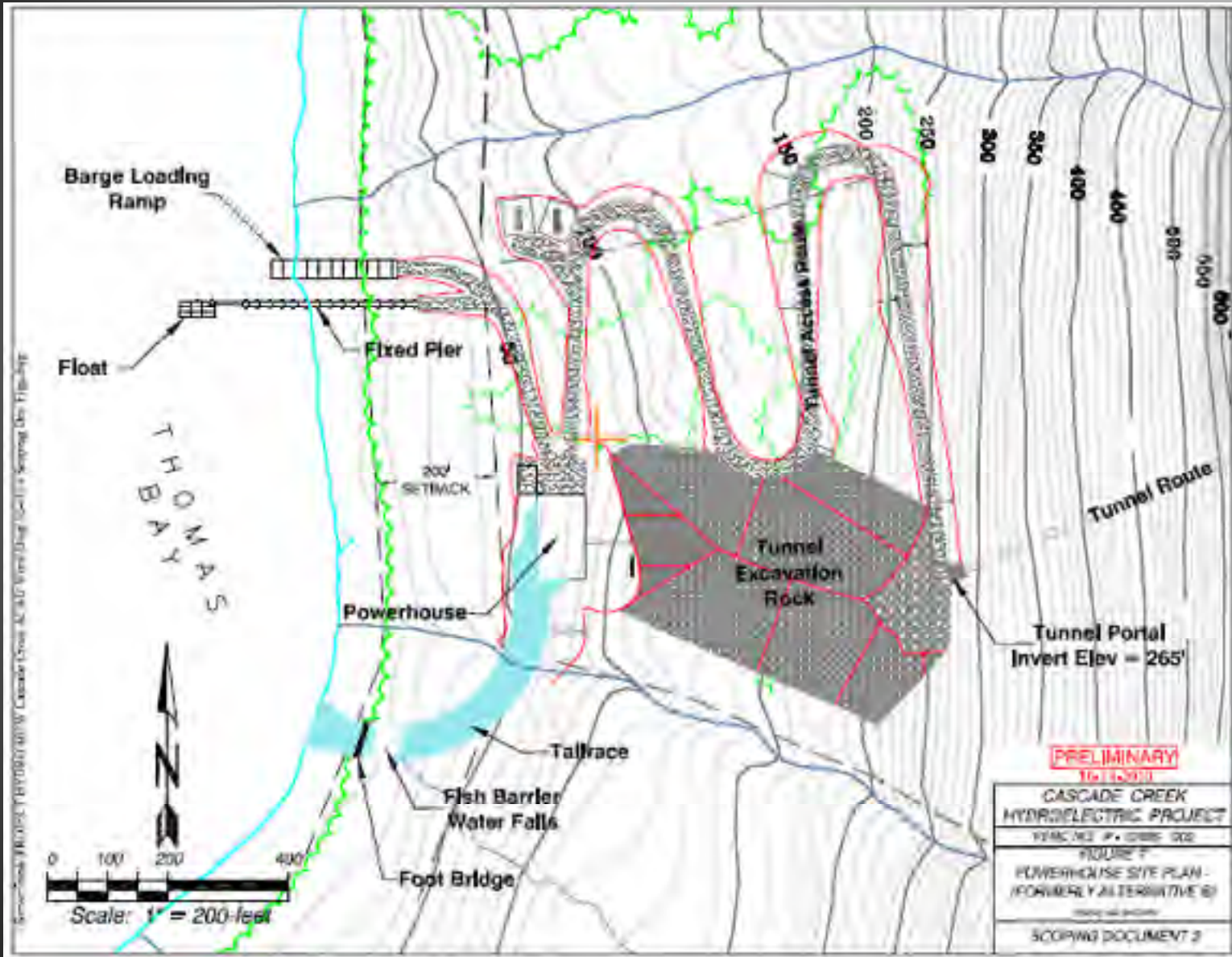


Project Area Map



Proposed Powerhouse
and Marine Access

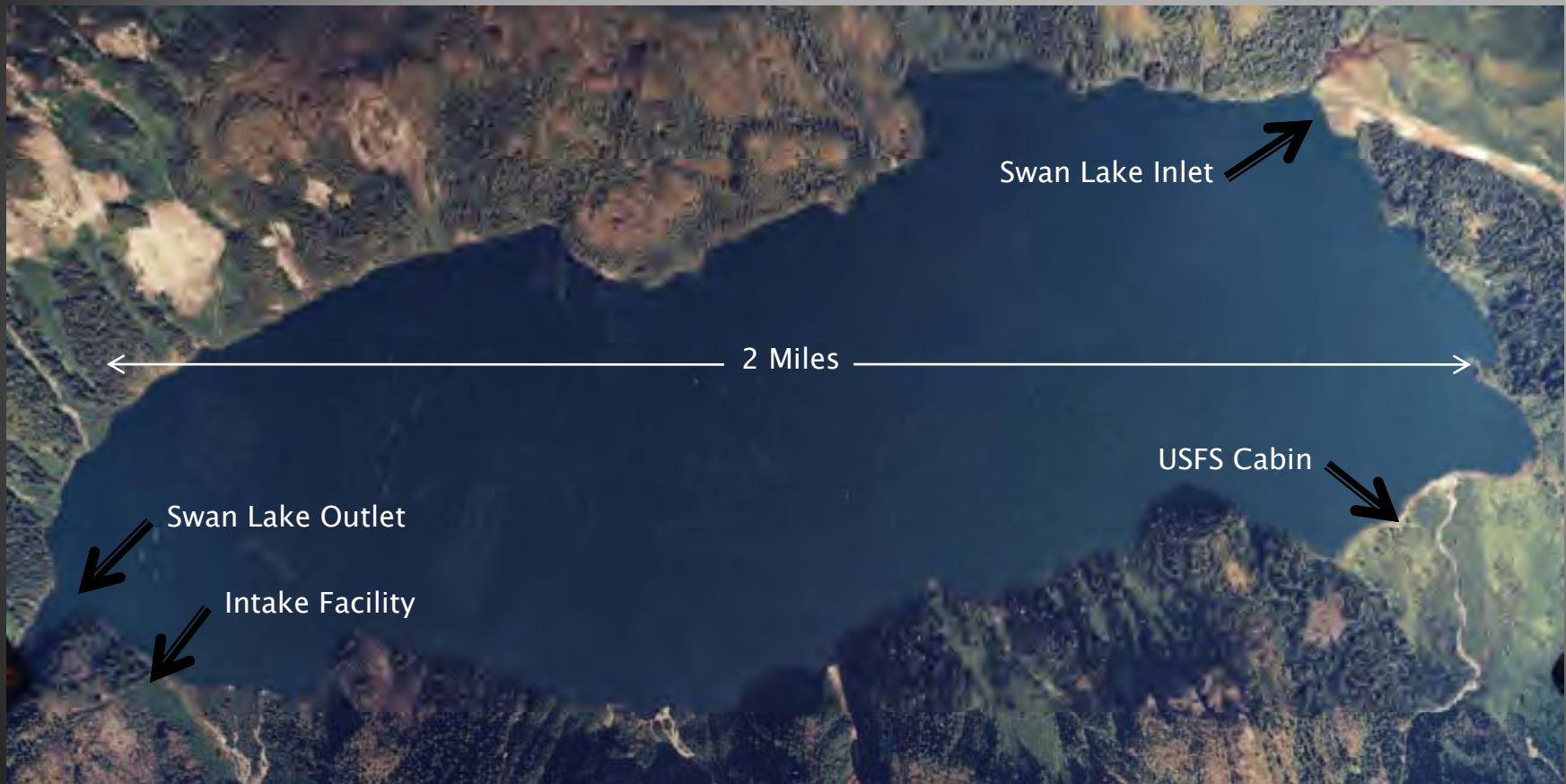
▶ Photo of Powerhouse Site From Thomas Bay



▶ Powerhouse Site Plan



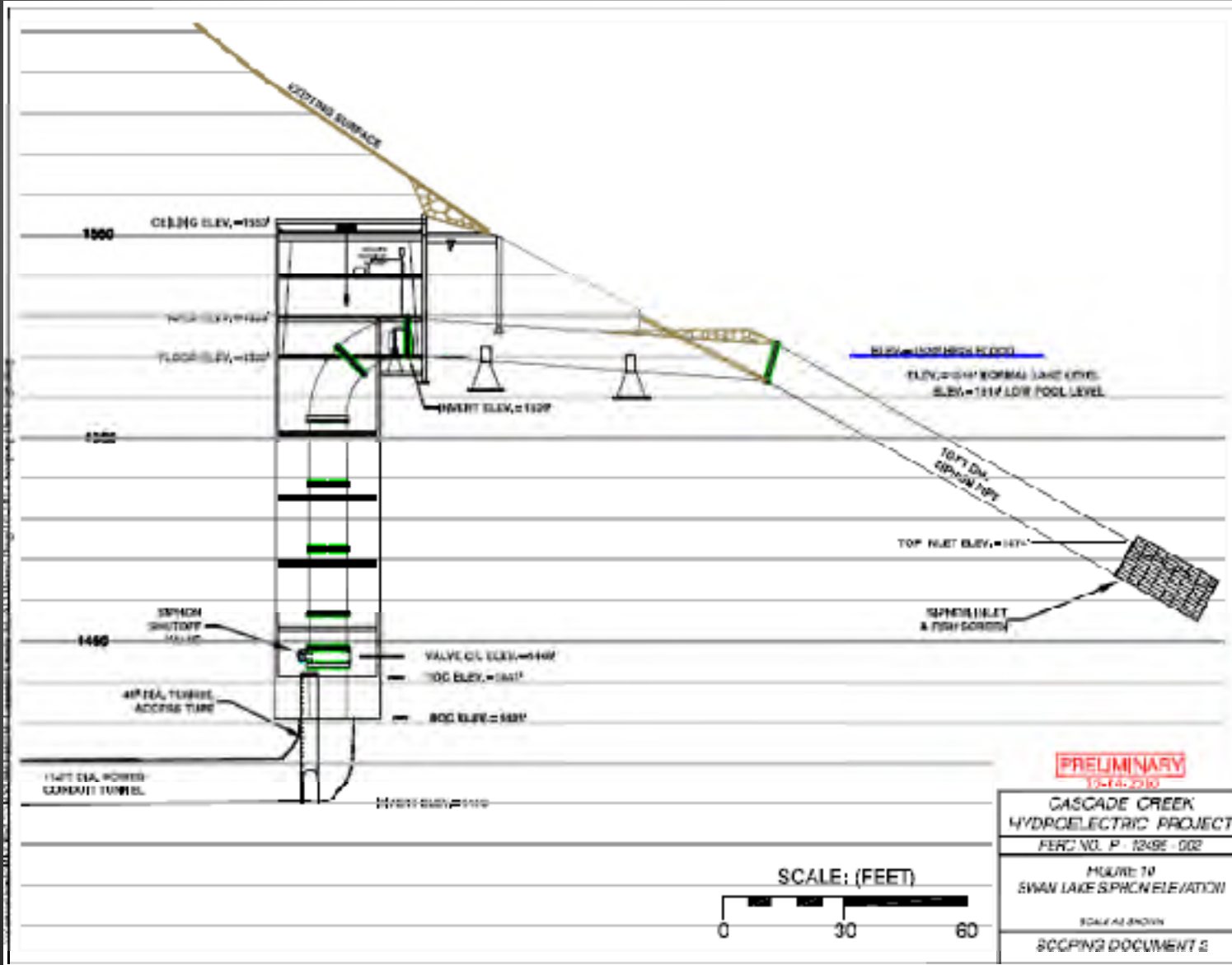
- ▶ Powerhouse Site Rendering From Thomas Bay



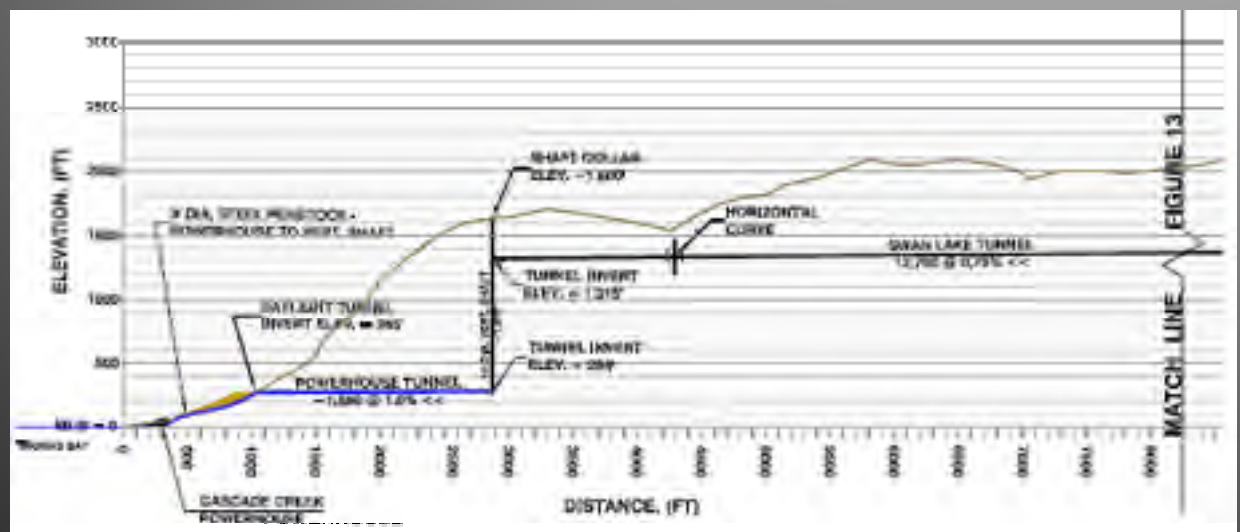
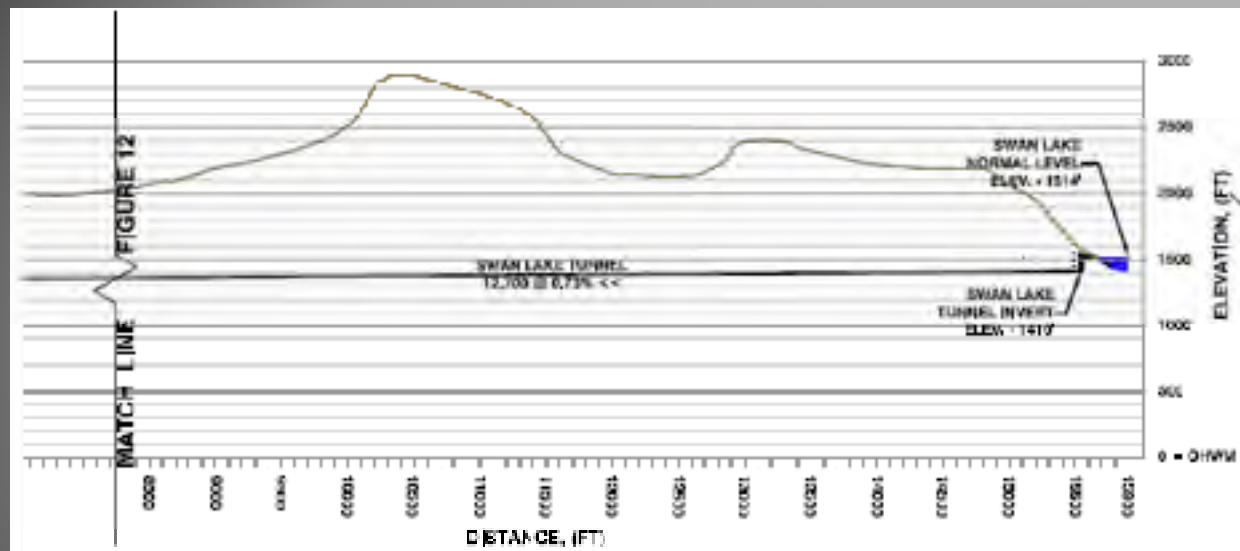
▶ Aerial Photo of Swan Lake



- ▶ Intake Site Rendering



Intake Facilities



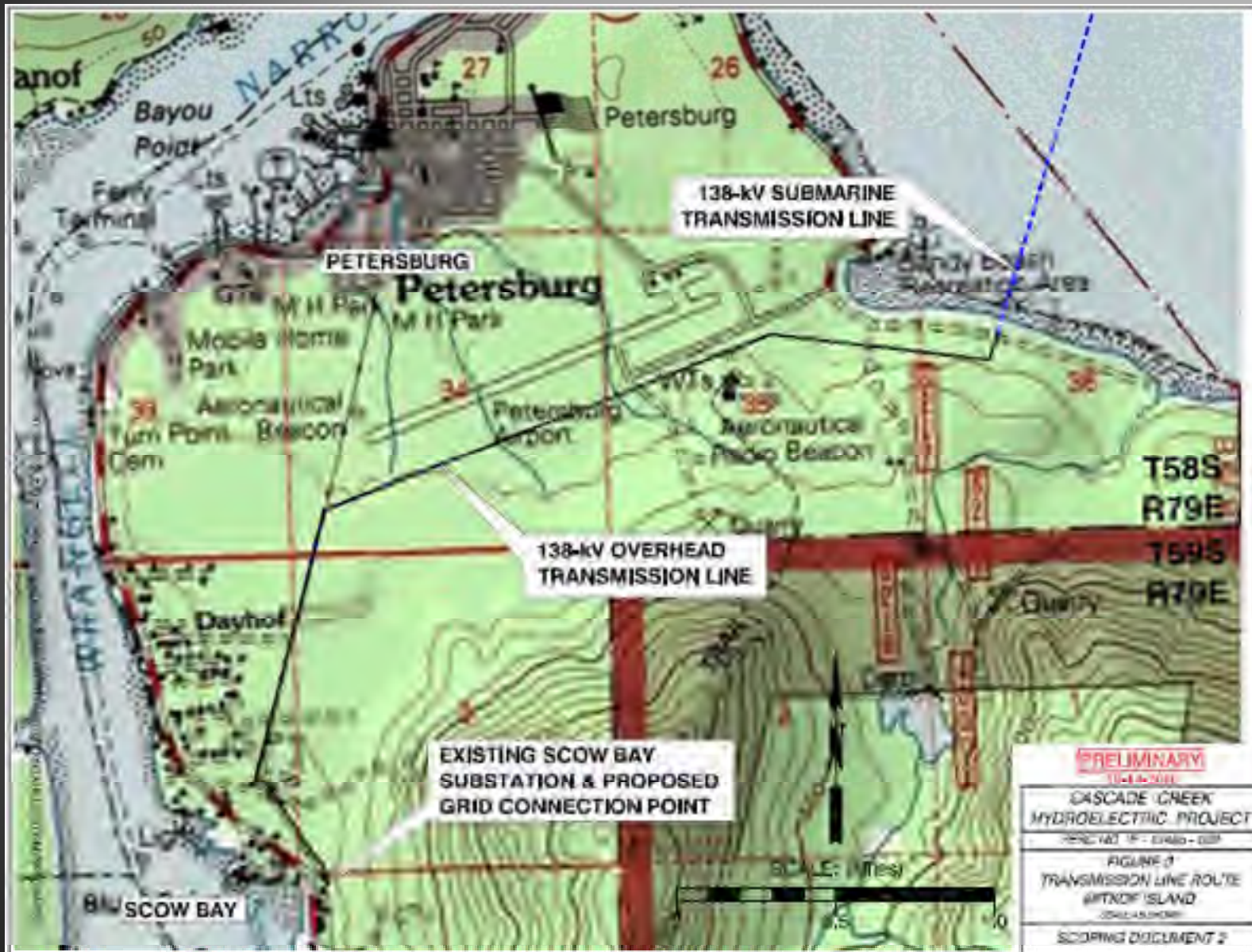
Tunnel Profile



- ▶ Submarine Cable Landing Near Existing USFS Dock in Thomas Bay



▶ Submarine Cable Landing Near Petersburg



- ▶ Proposed Overhead Transmission Line Route
- ▶ South of Sandy Beach to Scow Bay Substation

2.0 Licensing Team

Consultant

Primary Task

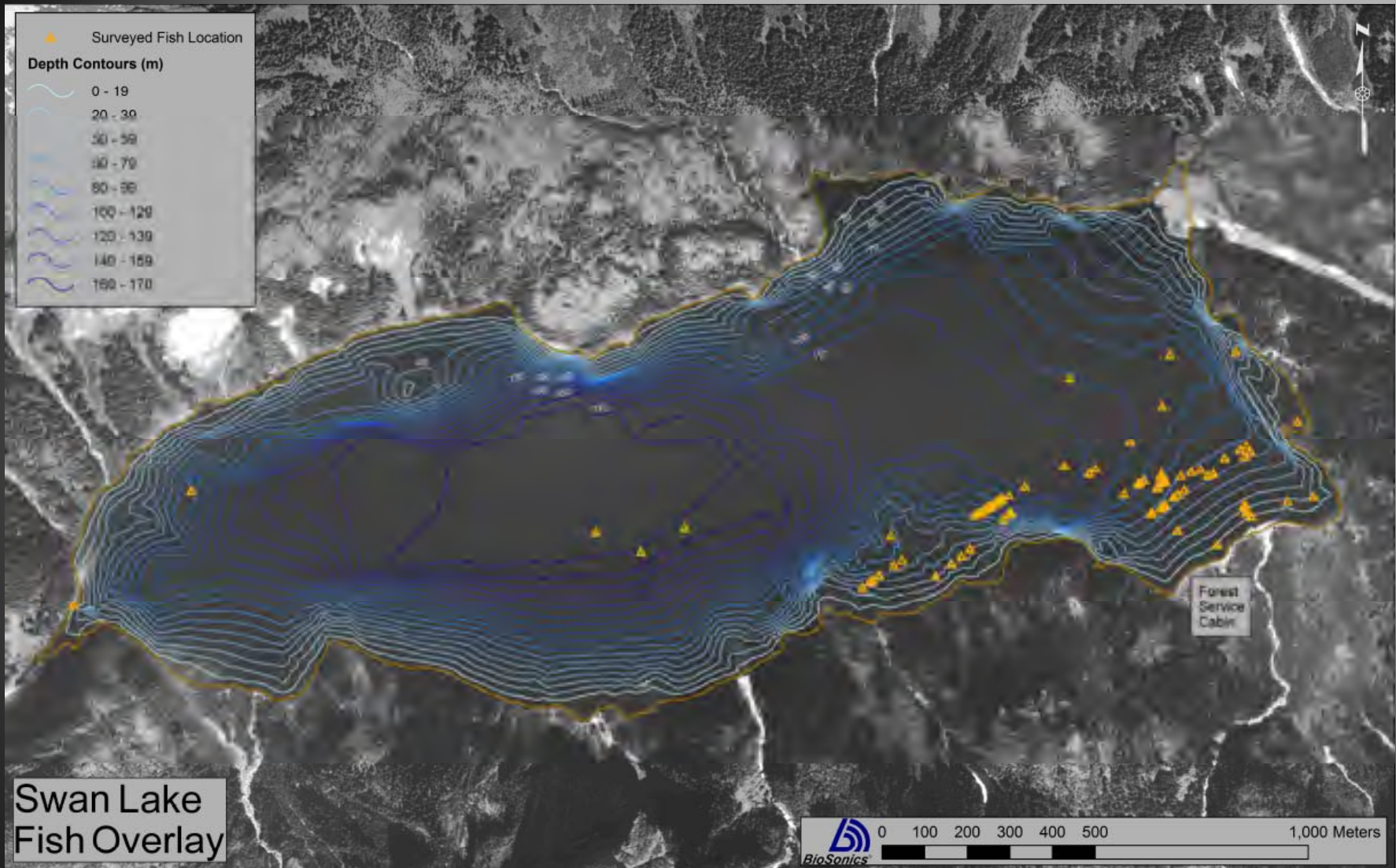
- Oasis Environmental, Inc. Wildlife & Aquatic Resources
- Biosonics, Inc. Bathymetric Mapping and Fisheries Survey
- Kleinschmidt Energy & Resources Licensing Consultant, Environmental Assessment
- Civil Science, Inc. Hydrology
- Stillwater Sciences Limnology, Stream Classification & Invertebrate Inventory
- Yellowsprings Associates Bathymetric Mapping
- Aqua-Terr Systems, Inc. Wetland Reconnaissance and Mapping
- Historical Research Associates Cultural Resources
- SADG, Inc. Geology & Soils
- Eagle Mapping, Ltd. Digital Imagery, Mapping and Orthophoto
- Whitewater Engineering Licensing & Preliminary Design
- WHPacific, Inc. Civil and Structural Design
- Temsco Helicopters Helicopter Support
- Pacific Wing Float Plane Support



▶ Stream Gaging on Cascade Creek & Swan Lake



- ▶ Stream Gaging in Upper Cascade Creek



- ▶ Lake Bathymetry and Surveyed Fish Locations Δ



- ▶ Fisheries Tagging Program and Bathymetric Mapping Equipment



▶ Hoop Net Fish Capture and Sampling



▶ Mountain Goat Population Aerial Survey – 2009 ADF&G

3.0 Project Licensing Timetable

2008

2009

2010

2011

2012

2013

Project Scoping

Environmental Field Studies

Prepare License
Application

FERC Issues
License