

State Specific Training Module

Alaska



Purpose of this Module

This module will provide some general information that TSPs need to conduct conservation planning in our state. This information is general in nature so the TSP may need to follow up with additional reading or training to make sure they have the knowledge, skill, licenses and certifications to conduct conservation planning in this state.

Alaska is enormous and the complexities vary significantly across the state. A simple list of considerations for TSP's in Alaska is not possible.

Introductory Concepts for Alaska Planning

- Alaska is unique among the fifty states; it experiences colder temperatures, has a wide range of weather patterns, has diverse ecologies, has a low percentage of privately owned land, has diverse megafauna, and extreme shifts in solar radiation through the year.

Introductory Concepts for Alaska Planning

- Alaska is a unique and challenging place to work. Practitioners who have experience in the lower 48 can be challenged by the variations in ecological functions, variations in natural response to practices, and lack of adequate research in information available to inform planning activities.

Introductory Concepts for Alaska Planning

- Travel is difficult or restrictive as many communities are detached from the road system. Commercial flights or small aircraft are often the only option to access sites. And weather can restrict air flight in Alaska, often changing your plans and requiring all parties in the planning process to exercise flexibility in scheduling. Protection from bear and other wildlife is an important consideration when conducting fieldwork in Alaska.

Review of Important Resource Issues

- Alaska constitutes a land mass that is over twice the size of the next biggest US state. It is a land of climatic extremes from the world's largest temperate rainforest, to the extreme cold and dry of the interior, to the arctic coastal climate of Utqiagvik (Barrow). The lack of long term, reliable temperatures and crop data along with the diversity of Alaska's Agricultural communities has impeded the use of models for reliable crop growth prediction. Soil temperatures are generally cold enough to slow down nitrogen mineralization rates enough to where models generated in the lower 48 contiguous do not apply in Alaska.

Review of Important Resource Issues

- The Alaska Department of Fish and Game maintains an active list at, [Federal Endangered Species in Alaska, Alaska Department of Fish and Game](#). The United States Fish and Wildlife Service maintain list can be found at, [Listed Species \(fws.gov\)](#).
- Aquatic fish passage is an important consideration in Alaska.
- Presence of permafrost should be investigated prior to planning, designing and implementing practices.

Review of Major Land Uses

Much of the land is undeveloped, wilderness, with agricultural centers in Delta Junction and the Matanuska Borough. Historically most of the timber production has occurred in Southeast Alaska (the Alexander Archipelago), where Sitka spruce and western hemlock are the dominate timber species. Fish, game and wild foraging are still important food sources to all Alaskans. The commercial fishery has been an economic engine for Alaska.

- According to the Alaska Department of Fish and Game there are 32 ecoregions in Alaska ranging from Polar to Temperate Continental to Temperate Coastal. Alaska is a land of variety.
- According to 2017 NASS statistics 43% of Alaska farms are 1-9 acres, 24% are 10-49 acres, and 16% are 50-179 acres.

Review of Major Land Uses or Agronomic Practices

- Subsistence agriculture is growing food to meet the needs of elders, families and villages
 - 16 U.S. Code § 3113: subsistence uses means the customary and traditional uses by rural Alaska residents of wild, renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation; for the making and selling of handicraft articles out of nonedible byproducts of fish and wildlife resources taken for personal or family consumption; for barter, or sharing for personal or family consumption, and for customary trade.
- Alaskans rely upon traditional wild foods
- 36.9 million pounds of wild foods are harvested annually by rural subsistence users
- Urban areas harvest about 13.4 million pounds of wild food under subsistence, personal use and sport regulations
- The Federal Government recognizes “This dependence on wild resources is cultural, social and economic. Alaska’s indigenous inhabitants have relied upon the traditional harvest of wild foods for thousands of years and have passed this way of life, its culture, and values down through generations.”

Economy of Alaska

Oil and gas

- 77,600 jobs
- \$ 2.7 billion on taxes and royalties (2019)

Mining –

- 9,600 jobs
- \$1.5 billion in export of zinc, lead and gold (2020)

Fisheries –

- 62,000 jobs
- \$5.7 billion (2019), \$81 million in tax revenues to state gov. and \$45 million to local gov.

Tourism

- 50,000 jobs (2019)
- \$143.3 million in state tax revenues, 45 million in local tax revenues. Tourist spent \$2.79 billion. (2019)

Defense

- 58,000 jobs (2021)
- \$3.7 billion in federal contracting and payroll (2021)

Logistics and Air Cargo

- 16,715 jobs (2020)

Forest Products

- 329 Jobs

[Appendix C Economic Engines.pdf \(alaska.gov\)](#)

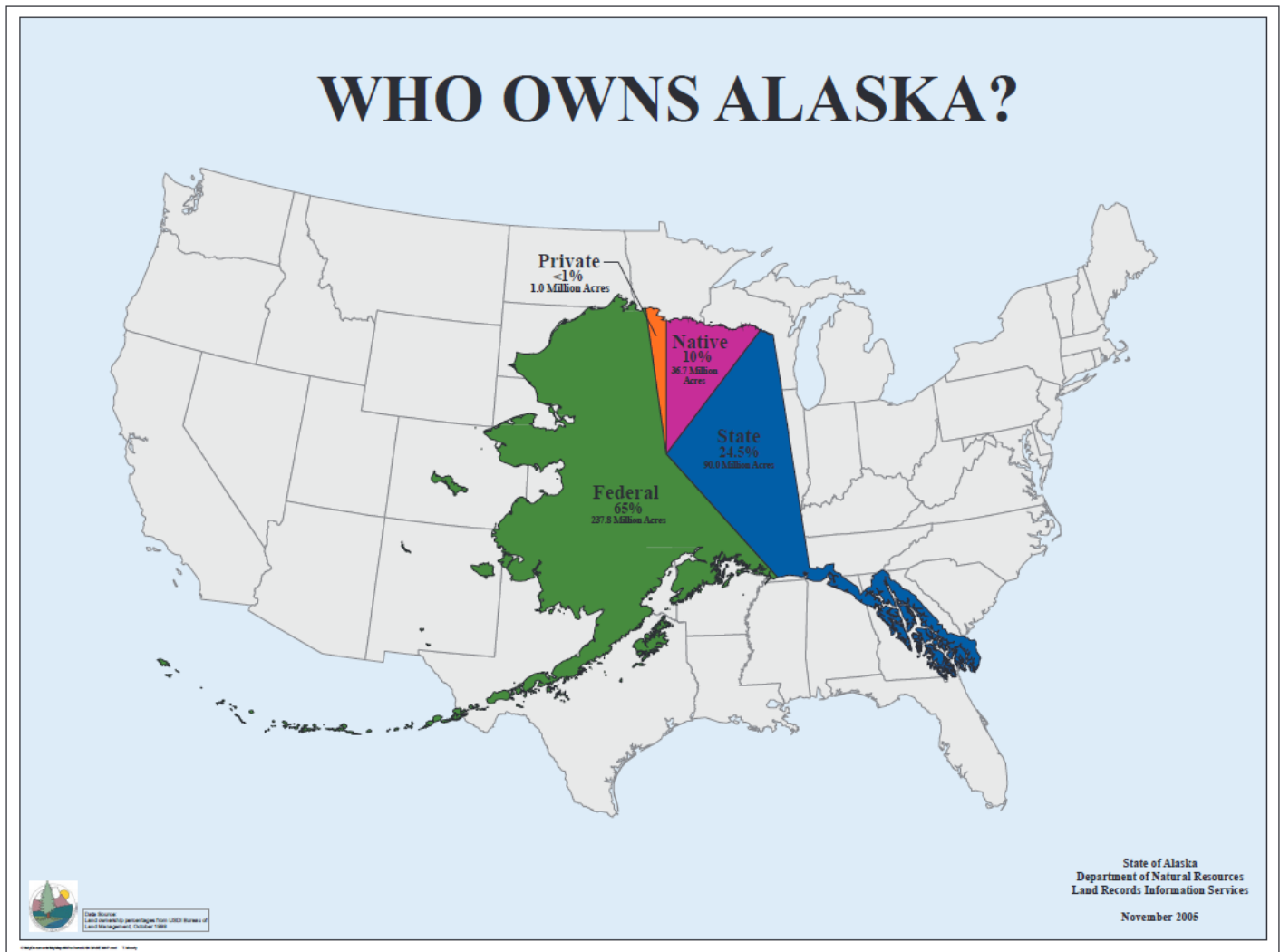
Review of Major Land Ownership

Alaska is roughly 65% federally owned as public lands. A further 24.5% is State of Alaska owned and native interests own an additional 10%. The remaining <1% is privately owned and serves a number of needs, including agriculture.

Three events with major impacts on land ownership in Alaska:

- Purchase of Alaska from Russia in 1867
- Alaska statehood in 1959
- Alaska Native Claims Settlement Act (ANSCA) 1971

Review of Major Land Ownership



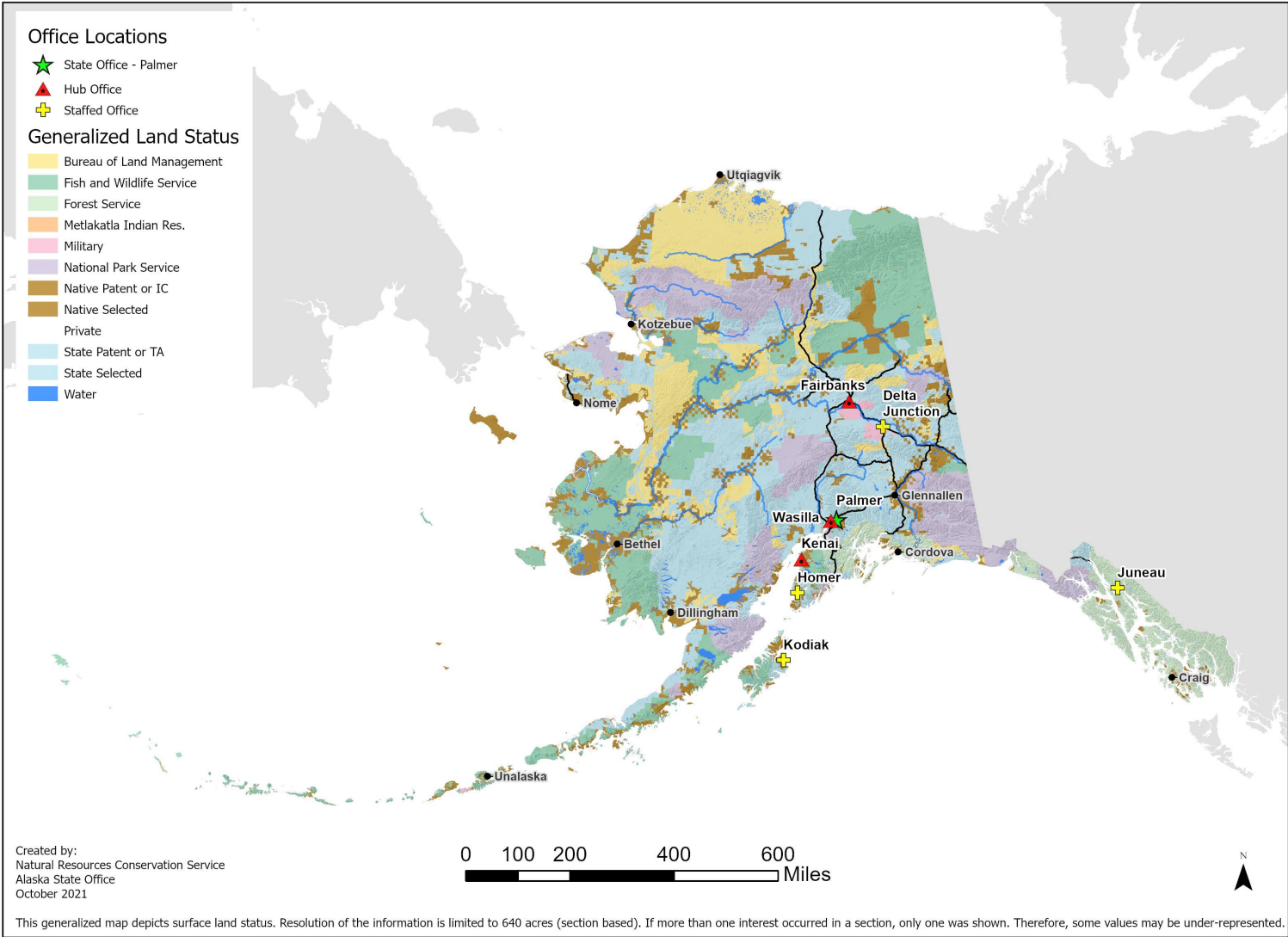
Alaska Land Transfer Entitlements

- The total entitlement to the State of Alaska is 104.5 million acres, roughly the size of **California**.
- The remaining state entitlement is 5.2 million acres, roughly the size of **New Jersey**.
- The total ANCSA entitlement is 45.7 million acres, roughly the size of the state of **Washington**.
- The remaining ANCSA settlement is 1.8 million acres, roughly the size of **Rhode Island and Delaware combined**.



Bureau of Land Management, April 2019

Generalized Land Status - Surface



Review of State Laws

Water Rights

- Alaska Water Use Act (AS 46.15)
- State of Alaska water rights are required if more than 5,000 gallons of water from a single source is used in a single day, OR
- If 500 gallons per day from a single source is used ten or more days in a calendar year.
- NRCS requires confirmation from the Alaska Department of Natural Resources that water rights are either secured or not required.
- Application for water rights
 - Online: [AK DNR: Water Rights In Alaska](#)
 - Visit offices in Anchorage, Fairbanks, or Juneau
 - Call 907-269-8400

Review of State Laws

- Alaska Forest Resources and Practices Act (FRPA, AS 41.17)
- Alaska Seed Regulations (AAC, Title 11, Chapter 34)
- Alaska State Agricultural Land Sales and Requirements
- Alaska Department of Fish and Game- Title 16 (Fish Habitat) Permits.
- State of Alaska Stormwater Program

Additional information about State Laws is in Section 1 of the Alaska Field Office Technical Guide (FOTG).

Significant differences in Alaska Engineering Laws

- Anyone who wants to be an engineering TSP must be a registered PE.
- Required separation distances between wells and various sources of contamination such as septic, chemical storage, concentrated animal feeding area or manure storage, etc.
- Water rights law is unique to each state and a TSP would need to be knowledgeable about Alaska Water Rights and impacts on engineering practices.

Review of State FOTG Requirements

Vegetative Practices

- Air and soil temperature is a major factor in establishing vegetation in the state. In many places freezing temperatures can occur in any month of the year. Seedlings and plantings should be protected from the wind.
- Depending on the crop and region of Alaska planting dates can be as much as six to eight weeks behind states in the contiguous Pacific NW. Seasons can however, be extended with the use of high tunnels.
- Seeding rates and dates can be found in Agronomy Technical Note 16, located in Section 1 of the FOTG.

Review of State FOTG Requirements

Grazing Related Assessment Tools

Assessment tools:

- Pasture Condition Score Sheet
- Apparent trend
- Similarity Index
- Interpreting Indicators of Rangeland Health
- Alaska Grazed Class Methods

COMMON PRACTICES WITH SPECIFIC ALASKA KNOWLEDGE

- 614-Watering Facilities
 - Extreme cold temperatures
- 382-Fencing
 - Requirements in coastal areas with salt-air/spray influence
 - Requirements of animals common to Alaska
 - Requirements in areas of high frost action and permafrost
- 342-Critical Area Planting
 - Coastal sand dunes
- 528 – Prescribed Grazing
 - Alaska grazing animals and vegetation types
- 645 – Upland Wildlife Habitat Management
 - Alaska-specific habitat and species
- 512 – Forage and Biomass Planting
 - Alaska native and adapted species

GRAZING RELATED KNOWLEDGE SPECIFIC TO AK

Grazing and natural ecology of :

- Aleutian islands grasslands
- Bering Sea Islands
- Arctic and sub-arctic tundra
- Interior and coastal Alaska rangeland

Grazing habits and preferences of:

- Reindeer
- Muskox
- Moose
- Bison
- Yak
- Sheep
- Cattle
- Horses
- Goats
- Elk

VEGETATION GENERAL KNOWLEDGE

- Typical/common pasture forage species adapted to Alaska climate and soils (interior and coastal Alaska) and responses to grazing at different intensities/ recovery rates
- Native species that are easiest to establish and available as native species to plant in Alaska
- Fire ecology of Alaska
- Best pollinator species native to Alaska for shoulder seasons that are easy to establish and available for purchase or collecting.

ALASKA NATURAL RESOURCE INFORMATION TO BE FAMILIAR WITH

- Ecological sites and soils of Alaska
- Native vegetation species
- Dominant soils and permafrost
- Wetland recognition and Food Security Act Rules/requirements
- Common invasive species

Expected TSP Workflow

- The State Resource Conservationist (SRC) will be responsible for reviewing TSP conservation planning for the National Planner Designation.
- Subsequent conservation plans will be reviewed by the District Conservationist (DC) at the local USDA Service Center.
- The SRC will conduct plan reviews for TSP planner designation renewals.
- TSPs will work with the local District Conservationist to make sure the proper environmental evaluations (NRCS.CPA.52) are completed.

Additional References or Training

- State Field Office Technical Guide at www.nrcs.usda.gov
- University of Alaska Cooperative Extension. www.uaf.edu/ces/
- Alaska Plant Materials Center. <https://plants.alaska.gov/>

Additional References or Training

- For information about Certified Nutrient Management Plans, contact the State Agronomist
- For information about Forest Management Plans, contact the State Forester
- For information about Conservation Planning, contact the Resource Conservationists on the SRC Staff.

<https://www.nrcs.usda.gov/contact/state-office-contacts/alaska-state-office>

Non-Discrimination Statement

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotope, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at [How to File a Program Discrimination Complaint](#) and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov.

USDA is an equal opportunity provider, employer, and lender.

Certificate of Completion

After viewing the State Specific Training module, please print and sign the completion certificate on the following slide.

The certificate is your acknowledgement that based on the information provided in this module, you have the proper knowledge, skills and ability to conduct planning in this State.

Within your NRCS Registry profile, enter the training and upload the signed certificate to verify completion.

STATE SPECIFIC TRAINING MODULE COMPLETION CERTIFICATE

I, _____ hereby verify I have viewed and understand the content of *Alaska State*
TSP Name
Specific Training Module and affirm I have the knowledge, skills, and ability to conduct conservation planning
services in this state.

TSP Signature

Date