

# **Northern Tongass Integrated Weed Management**

## **Cultural Resources Report**

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for:

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## Introduction

The Forest Service proposes to eradicate, control or contain invasive plants on the Admiralty National Monument, and the Juneau, Hoonah, Sitka and Yakutat Ranger Districts of the Tongass National Forest. Most of the plants occur in high use areas like road sides, administrative sites, rock pits and recreation sites. A combination of proposed treatments include manual (hand pulling and tarping), mechanical (mowing) and chemical (herbicide) application. Herbicide use will be small scale and restricted to broadcast, spot and hand spraying individual or groups of plants. An Environmental Assessment (EA) is being prepared to analyze potential effects to the forest, animals and a variety of resources.

The National Historic Preservation Act (NHPA) requires the agency to consider the effects of its actions on historic properties that are eligible or listed on the National Register of Historic Places (NRHP), and to consult with the State Historic Preservation Officer (SHPO), Indian Tribes, and interested stakeholders. The National Environmental Policy Act requires Federal agencies to consider effects of their actions on cultural resources which include historic and prehistoric sites regardless of eligibility status to the NRHP.

The Section 106 implementing regulations of the NHPA is a review process that considers historic preservation concerns with the needs of Federal actions. Research, consultation and cultural resource survey are undertaken to identify properties and resources that may be affected by project activities.

The Alaska Region Forest Service consulted with the SHPO and the Advisory Council on Historic Preservation to develop a programmatic approach (PA) for implementing Section 106 of the NHPA that will satisfactorily take into account the effects of Forest Service undertakings on historic properties (USDA-FS 2017).

Specific analysis areas for direct and indirect effects will be decided on a case by case basis as invasive plant management plans are developed annually for work in the North Zone project area. Forest Service archaeologists will be provided the opportunity to review the project areas and initiate Section 106 if appropriate.

### *Overview of Issues Addressed*

The project proposes plant eradication treatments, including hand pulling, mowing, tarping and herbicide application, which generally have little potential to cause effects to historic properties.

The Alaska Region PA categorizes noxious weed and invasive plant eradication as an undertaking that has no potential to affect historic properties.

## Affected Environment

### *Area of Potential Effect*

The Area of Potential Effect (APE), as defined in Section 106 of the National Historic Preservation Act, is the geographic area(s) within which a federal project may directly or indirectly affect the character of cultural resources eligible to the National Register of Historic Places (NRHP). For this project, the APE consists of National Forest System Lands within the North Zone districts and Admiralty National Monument, an area that encompasses Admiralty, Baranof Chichagof, the mainland north from Cape Fanshaw to Skagway and the mainland around Yakutat (Figure 1), an area in excess of 7 million acres. Proposed activity areas in the APE will focus on road sides, administrative sites, rock pits, recreation sites, and a few riparian areas. Specific activity areas will be identified in annual Invasive Plant Management Plans.

### *Existing Condition*

Cultural resources on the Tongass National Forest include prehistoric and historical sites that span over 10,000 years of human occupation and use. Oral histories and ethnographic accounts indicate Tlingit people have occupied Southeast Alaska for centuries and were expanding their territory northward at the time of European contact. The North Zone invasive plants analysis area encompasses the traditional territory of the Angoon, Auk, Carcross, Chilkat, Chilkoot, Hoonah, Kake, Klukwan, Sitka, Tagish, Taku and Yakutat Tlingit. Prehistoric and protohistoric use include a variety of sites including villages, seasonal campsites, fish traps and weirs, rock art, sacred and religious areas, and subsistence or resource gathering places. The Tlingit continue to recreate, hunt and gather on these lands today.

The historical period in Southeast Alaska began in 1741 when Aleksei Chirikov, a member of Russia's Kamchatka Expedition, sighted land somewhere between Yakobi and Chichagof islands. The Russian's brought back sea otter pelts, which sparked fur trade with the Orient. The trade boomed and the British and American traders soon joined in the pursuit of this valuable commodity. The Russian-American Company rapidly built up its presence in Southeast Alaska and established settlements in Yakutat, Sitka and Wrangell. Russia eventually lost control of the sea otter trade, the company became financially strapped and maintaining a presence in Southeast Alaska became less important. Eventually Russia sold the rights to Alaska to the United States. Since then, enterprises including fishing, whaling, mining, fur farming, tourism, and timber harvest have developed in the analysis area and left evidence on the land.

Archaeological work in the analysis area has occurred over the last several decades. The work is driven primarily by project compliance requirements specified in the National Historic Preservation Act with supplemental investigative survey. Most of the work was done by forest service archaeologists with assistance from contract archaeologists. Research partnerships with academic institutions have also added to our knowledge about the area.

The numerous archaeological surveys within the project area, beginning in the 1970's, have resulted in the location and documentation of over 1000 sites on national forest system lands. Most have not been evaluated for eligibility status to the NRHP but are treated as eligible until formal evaluations are complete.

Tribe consultations are an important part of cultural resource management. In Alaska, Indian Tribes, as defined by the National Historic Preservation Act, include federally recognized tribes and village and regional corporations created by the Alaska Native Claims Settlement Act. The Angoon Community Association, the Douglas Indian Association, the Hoonah Indian Association, the Organized Village of Kake, the Sitka Tribe of Alaska, the Skagway Traditional Council and Yakutat Tlingit Tribe, are the tribes that have a cultural affiliation to the project area and are being consulted during the course of project development.

### *Desired Condition*

The Forest Service Heritage Program seeks to identify, evaluate, preserve, and protect heritage resources on a Forest-wide and project-specific level in compliance with Forest Service management objectives (FSM 2360), the National Historic Preservation Act, the National Environmental Policy Act (NEPA), the American Indian Religious Freedom Act (AIRFA), the Archaeological Resources Protection Act (ARPA), the Native American Graves Protection and Repatriation Act (NAGPRA), Executive Orders 11593 and 13287, their amendments and implementing regulations. Compliance with these directives will help protect cultural resources and/or historic properties from the effects of Forest Service undertakings.

## Environmental Consequences

### *Methodology*

To address potential effects to historic properties we considered the PA which outlines protocols for investigating high and low archaeological site sensitivity zones and identifies types of undertakings that have no potential to cause affects to historic properties. Several activity types addressed in Appendix B of the PA are pertinent to this project, particularly one that specifically refers to weed and invasive species eradication (Programmatic Agreement 2017:30). A Forest Service archaeologist reviewed Tongass National Forest Heritage Integrated Database which includes cultural site and survey information, the Office of History and Archaeology Integrated Business Suite, and the Alaska Land Records federal plats for information on known or suspected archaeology sites in the project area. To identify cultural resources in the project area, we plotted the location of known archaeology sites and compared them to the defined treatment areas. Some cultural resource sites are located in the vicinity of treatment areas.

### **Spatial and Temporal Context for Effects Analysis**

Forest Service archaeologists analyzed the APE for direct, indirect and cumulative effects to cultural resources. There will be no short term or long term direct, indirect or cumulative effects to any archaeology sites with implementation of the proposed action. Review of the annual Invasive Plant Management Plan and proposed actions associated with the plan may trigger Section 106 review.

### **Past, Present, and Foreseeable Activities Relevant to Cumulative Effects Analysis**

The Forest Service considered past, present and reasonably foreseeable activities that are relevant to cultural resources in the project area. Projects that have occurred and will likely continue in the project area include road building and maintenance, timber management and construction of developed recreation sites. Past use of archaeology sites in the project area have resulted in the occurrence and dispersal of invasive weeds. Future use and visitation of archaeology sites could result in the introduction and dispersal of invasive plants.

## ***Alternative 1 - No Action***

### **Direct and Indirect Effects**

The No Action alternative would not result in direct or indirect effects to cultural resources because no ground disturbing activities will occur.

## ***Alternative 2 – Preferred Action and Alternative 3***

### **Direct and Indirect Effects**

Direct effects could occur if plant removal disturbs more than one square meter of cumulative ground disturbance at a cultural resource site. The majority of activities associated with this project proposal do not have the potential to effect cultural resources. The PA identifies undertakings that have no potential to cause affects to historic properties. The Heritage Specialist, at their discretion, may decide to treat an undertaking that may otherwise fall under Appendix B, under the modified or standard review procedures. Those relevant to this project include:

1. Activities that include tree cutting or small scale vegetation management that have minimal potential to affect historic properties.
2. Ongoing routine maintenance of immediately surrounding landscaping (such as mowing and lawn repair), including such modifications as removal of non-native vegetation, adding single plants or shrubs that blend with the existing landscape, or adding rocks to define paths, where not otherwise prohibited, so long as existing landscape characteristics are maintained and the method of removal and installation does not disturb previously undisturbed ground or historic properties.
3. Expansion of vertical quarries, excavation of previously buried utility lines, and any activities within the demonstrated vertical and horizontal limits of previous disturbance or construction.
4. Invasive plant management activities that use hand-tools and/or otherwise use minimally invasive procedures for plant management, including application of herbicides provided that the Forest Service has determined that such actions will not affect traditional gathering areas, plants that are part of a historic landscape, or plants that might indicate the presence of cultural resources, including burials.
5. Recurrent brushing activities to control vegetation within existing clearing limits of roads, parking lots, airstrips, or heliports.

The majority of the invasive plant eradication project activities fall within the conditions listed above and will not affect cultural resources in the project area. Proposed digging will occur only with trowel-sized hand tools. Use of a shovel is not permitted. The zone archaeologist will be consulted prior to hand digging at known cultural resources.

To address herbicide use and potential affects to cultural resources we contacted Beta Analytic Inc., a carbon dating lab that provides worldwide carbon dating services. Deputy Director, Ronald Hatfield concludes herbicides do not present a problem to radiocarbon analysis (a common method of dating of cultural resources) if they are not directly applied to the artifacts, charcoal, or other objects for analysis. Beta has received samples for dating from all over the world, including farmland where pesticides and herbicides have been applied and there has never been any evidence of problems with subsequent radiocarbon analysis (Personal Communication 2012).

Additionally, implementation of project design features will prevent potential effects to historic properties and cultural resources. Those pertaining to cultural resource protection include:

1. Archaeologists will review annual Invasive Plant Management Plans. The Section 106 review process will be initiated if the action is an undertaking with the potential to affect cultural resources.
2. In the event of an unanticipated discovery work will cease until a Forest Service archaeologist has the opportunity to assess the situation and begin the Section 106 process if necessary.
3. Consultation will occur with the zone archaeologist before hand-digging and pulling is permitted at a known historic property.
4. Cultural resource monitoring may be used to enhance the effectiveness of protection measures in conjunction with other measures.

### ***Cumulative Effects***

The analysis area for cumulative effects includes potential plant management areas in the North Zone project area.

#### **Alternative 1**

The No Action alternative could contribute to cumulative effects to cultural resources because invasive species left untreated could spread and affect the natural context of the site.

#### **Alternatives 2 and 3**

Future projects on the North Zone ranger districts could affect cultural resources. A review of a catalog of events showing past, present and reasonably foreseeable activities indicates types of projects that may occur in the project area. These include timber harvest, road, trail, quarry, culvert and bridge work, mining and associated activities, recreation site enhancements, large stream restoration and any number of smaller projects that have a ground disturbing or reconstruction component. Past activities have generally been modified to avoid impact to cultural resources. If discovered unintentionally, practices have focused on mitigating adverse effects to the best foreseeable outcome.

### **Compliance with Forest Plan and Other Relevant Laws, Regulations, Policies and Plans**

The cultural resource analysis of the proposed action alternative follows Forest Plan policy for the protection of historic properties. The implementing regulations of the National Historic Preservation Act will have been met using modified procedures as defined in our Programmatic Agreement (2017) with the Alaska State Historic Preservation Officer and the Advisory Council on Historic Preservation.

### **Summary of Effects**

The Tongass National Forest has determined this project does not qualify as an undertaking with the potential to affect cultural resources or historic properties because ground disturbing activities are not proposed for specific locations. A Forest Service archaeologist will review annual Invasive Plant Management Plans with treatment areas and methods identified. If the proposed actions constitute an undertaking as defined in the NHPA, then impacts to cultural resources will

need to be identified and evaluated by (1) determining the area of potential effects; (2) identifying cultural resources present in the area of potential effects that are either listed on or eligible to be listed on the National Register of Historic Places; (3) applying the criteria of adverse effect to affected cultural resources or historic properties; and (4) considering ways to avoid, minimize, or mitigate adverse effects.

## References

*USDA-FS 2017 Programmatic Agreement among the USDA Forest Service, Alaska Region, the Advisory Council on Historic Preservation, and the Alaska State Historic Preservation Officer regarding Heritage Program Management on National Forests in the State of Alaska.* Manuscript on file, USDA Forest Service, Tongass National Forest, Petersburg Ranger District, Petersburg, Alaska.