



United States Department of Agriculture

Commercial Harvest of Spruce Tips

Environmental Assessment



Forest Service
Alaska Region

Tongass National Forest
Sitka Ranger District

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COVER: PICTURE OF BARANOF ISLAND FROM TOTEM PARK TRAIL.

Need for the Proposal

A request for the commercial harvest of spruce tips from National Forest System Lands (NFS) has been received by the Sitka Ranger District. Since this request is proposed for public lands, the Tongass National Forest will need to authorize and permit this activity. The USDA Forest Service is authorized to permit the commercial harvest of special forest products per 36 CFR 223.1.

Location

Commercial spruce tip harvesting activities would be allowed across the Sitka Ranger District on lands not otherwise closed to commercial special forest product harvesting. It is expected that most harvest will occur in young-growth timber stands accessible by roads.

Description of Alternatives

Two alternatives were considered for this analysis:

No Action:

The No Action alternative would not allow the commercial harvest of spruce tips on NFS lands on the Sitka Ranger District.

Proposed Action:

The Proposed Action would:

- Authorize the commercial harvest of 2,000 pounds of spruce tips from NFS lands, with the potential to incrementally increase harvest limits upon annual review, not exceeding 10,000 pounds across the Sitka Ranger District.
- Allow the Forest Service to offer, at its discretion, preferred harvest areas that would not exceed 5 contiguous acres. Preferred harvest areas would not be available for commercial harvest more than once every three years.
- Require an annual review of effects on subsistence and personal use.

The Proposed Action would allow commercial entities to apply for a Special Forest Products Permit to harvest spruce tips from NFS lands. Permits would authorize the harvest of spruce tips under special provisions of the Forest Service. The allowed annual harvest would depend on previous year's harvest and compliance with the permit provisions.

It was determined that the permit provisions listed below are conservative enough to prevent a negative effect to subsistence harvesting through limiting abundance or increasing competition for spruce tips. Less than one-sixth of any given tree of at least 10 feet in height would be harvested from for commercial purposes. The provisions also ensure that harvest won't affect tree growth or survival. In order to collect more tips, the permit holder will need to harvest from a broader area, thus maintaining the minimal impact ensured by the permit provisions. An initial harvest limit of 2,000 pounds would be in effect until it could be shown that there was no effect on subsistence availability or tree survival, and opportunities would be provided to include the Sitka Tribe of Alaska on any post-harvest monitoring activities. The maximum allowable commercial harvest of spruce tips would initially be set at 10,000 pounds district wide. The cap was chosen based on the ability of the Forest Service to monitor harvesting activity across the district.

Permit holders would be allowed to authorize individuals or groups to harvest for each permit holder. Permit holders would be required to provide harvesters with written authorization and a copy of the permit that contains special harvesting provisions, and a list of locations where commercial harvesting is not allowed. The Forest Service would provide maps of the Sitka Ranger District and the greater Sitka

vicinity that show where commercial harvest is not allowed. Provisions of the permit will require that each authorized harvester document where harvest occurs and how much is harvested. Permits will be collected by the Forest Service from the permit holder at the conclusion of the harvest season for review and monitoring (see Monitoring section below). Harvest provisions of the permit include:

- Permit holders or anyone authorized by the permit holder to harvest spruce tips must have a copy of the permit in their possession at all times when harvesting.
- Harvest is allowed between April 1 and June 30.
- Only trees 10 feet in height or greater may be harvested from.
- Only the lower 1/3 of the tree's branches may be collected from.
- Only half of the limbs within that lower 1/3 may be collected from.
- Only harvesting by hand or with hand operated tools is allowed.
- Groups shall be limited to 20 individuals during harvest activities.
- Harvest permits must be returned to the permit holder by June 30.
- Harvest is not allowed within ¼ mile of the Harbor Mountain road in Sitka on National Forest System lands.
- Harvest activities shall not take place within 500 feet of Forest Service recreation rental cabins to maintain privacy for cabin renters.
- Forest Service mooring buoys are not available to individuals harvesting spruce tips or who are engaged in other commercial activities.
- Motorized travel is restricted to open roads and OHV designated trails as shown on the Sitka Ranger District Motor Vehicle Use Map (MVUM).

Land Use Designation (LUDs) areas closed to commercial harvest under this permit would include:

- Wilderness Areas such as the South Baranof Wilderness Area and West Chichagof-Yakobi Wilderness Area
- Wild River corridors including the Glacial River that flows into South Arm Kelp Bay on northeast Baranof Island, and Kadashan River that flows into Tenakee Inlet
- Special Interest Areas such as the Mount Edgecombe Geologic Area on Kruzof Island and the Clear River watershed on northeast Baranof Island
- Research Natural Areas such as the Kadashan Research Natural Area
- Developed Recreation Areas, such as the Starrigavin and Harbor Mountain Recreation Areas, the Sawmill Creek Campground, and the Sandy Beach recreation area on Halibut Point Road in Sitka. Commercial spruce tip harvest may be allowed in these areas only if it is as a by-product of a planned development or vegetation management project.

Spruce tips must be transported to motorized vehicles by hand, and motorized vehicles used to transport spruce tips are only allowed on drivable roads or trails according to current motor vehicle use restrictions. Mechanized harvesting or any ground disturbing harvesting technique is not allowed. Roads, trails, and ditches must remain free of debris resulting from harvest activities.

Analysis of the Alternatives

The environmental effects of the No Action and Proposed Action are described below. The discussion focuses on resources most likely to be affected by the alternatives either from access to harvest area, additional uses in harvest areas (such as effects on recreation uses), transport of harvested spruce tips, or the harvest of spruce tips itself.

Specialists have analyzed the effects of not allowing commercial harvest (Alternative 1), as well as the commercial harvest of spruce tips following permit provisions (Alternative 2). The full analysis for each resource, including methods, assumptions and literature, are available as separate reports in the project record. Records from this file are available to the public (excepting specific exemptions to protect

sensitive, private, or confidential records under the Federal Freedom of Information Act) upon request at the Sitka Ranger District.

Resources for which the effects of the proposed action were determined to not have an effect and do not require additional mitigations or permit conditions include: fisheries, hydrology, soils, wetlands, and floodplains, and special uses/lands.

Archaeology

No Action – The No Action alternative would not result in any direct, indirect or cumulative effects to significant archaeological resources.

Proposed Action – The proposed action would not result in any potential to cause effects on Historic Properties (significant archaeological sites), or have any direct, indirect or cumulative effects to significant archaeological resources. Under the implementing regulations for section 106 of the National Historic Preservation Act, the agency has no further obligations.

Vegetation/Timber

No Action – The No Action Alternative would not result in any effects to the vegetation/timber resources because no management activities would take place.

Proposed Action – The Proposed Action would not result in effects that would damage individual trees or stands or otherwise affect a tree's ability to survive and continue to grow. Effects would be minimized by requiring harvesters to follow specific harvest provisions regarding tree selection and harvest described in the permit conditions above.

The direct effect could include slightly reduced growth during the remainder of the current growing season on trees that had some tips removed. Commercial harvesting is not expected to have any noticeable effects on stand structure and species composition because at least 5/6^{ths} of the tips on any given tree will remain after commercial harvesting.

The indirect effects may include a slight increase in susceptibility to disease and pests due to the creation of points of entry during the removal of the tips. This effect is negligible due to the minimal total number of trees that will be impacted across the landscape and the low likelihood of actual infection. Studies of the effects of removing only spruce tips from branches do not seem to exist. In the absence of directly related research, a paper studying the effects of pruning branches from Sitka spruce trees was considered. The study found that pruning, a more extreme harvesting technique than tip removal, resulted in the generation of additional small branches (epicormic shoots) and was not detrimental to overall tree growth. (Deal et al 2003).

The minimal direct and indirect effects combined with the harvest only once every three years in Forest Service designated areas restriction will lead to negligible cumulative impacts on the environment. These effects will not result in any degradation of the forest stands where designated collection takes place.

Botany

No Action – The No Action alternative would not result in any direct, indirect or cumulative effects to Sensitive plant species.

Proposed Action – The Proposed Action would not result in any direct, indirect or cumulative effects to Sensitive plant species.

Wildlife

No Action – The No Action Alternative would not result in any effects to wildlife habitat resources because no management activities would take place.

Proposed Action – The Proposed Action could result in a short term direct effect during collection periods, in the form of avoidance behavior, by a few individuals within wildlife populations found in the

collection areas. However, collection events will be short-term in duration (a few hours to a day) and therefore this direct effect will be negligible. The methods prescribed for collecting spruce tips will maintain the health of the stands and therefore there will be no effects to wildlife or their habitat of Management Indicator Species (MIS) or Threatened or Endangered Species (TES).

There will be no negative indirect or cumulative effect from this project.

Recreation

No Action – The No Action Alternative would not affect the recreation resource. Existing levels and uses would continue.

Proposed Action – The Proposed Action may result in brief interactions between commercial harvesters and dispersed recreation users. These interactions are not expected to result in prolonged recreational user dissatisfaction due to the nature of the harvest activities and the fact that collection events will be short-term in duration (a few hours to a day in any given locale) and limited to approximately one month per year.

Subsistence

No Action - The No Action Alternative would not affect subsistence resources. Existing abundance and distribution, as well as access and competition for subsistence resources would continue at current levels.

Proposed Action - The Proposed Action will have negligible effects on the abundance of spruce tips available for subsistence uses, as well as negligible changes to competition for spruce tips. There would be no effect on the distribution of spruce tips, or access to spruce tips or other subsistence resources.

Spruce tips are considered an important subsistence resource for medicinal or consumptive purposes (Kayaani Commission, 2006) and the Forest Service recognizes that abundance, distribution, access, and competition must be provided for before personal and commercial uses are allowed. The conditions that would be set forth in any harvest permit described above, and the adaptive management strategy outlined in the monitoring plan, are designed to ensure that the abundance and distribution of spruce tips, and competition for spruce tips, does not change significantly.

The Proposed Action will have *negligible* direct effects on the abundance and competition for spruce tips. Commercial harvest would only be allowed to remove spruce tips from half of the lowest third from any single tree over 10 feet in height or greater. Therefore, while abundance would be decreased slightly in certain areas, and competition could increase slightly in those areas, spruce tips should remain abundant for subsistence purposes and neither abundance nor competition would change significantly.

The Proposed Action will also not have any indirect effects on the abundance and distribution of, access to, or competition for spruce tips. Harvesting spruce tips has not been shown to affect spruce tree viability or growth (see Timber and Vegetation Resource Report) and will remain abundant and widely distributed for the foreseeable future. Access will not be changed as a result of the Proposed Action. Commercially harvesting spruce tips will also not indirectly affect competition for spruce tips or other resources.

The Proposed Action will also not result in any cumulative effects to the availability, distribution, access to, or competition for spruce tips.

Monitoring

Forest Service personnel will collect permits and review the locations and amount of harvest from each location and verify that harvesting followed provisions of the permit. Monitoring will occur at the end of each harvest season as soon as practical after harvesting is completed and near the end of the growing season. Any permitted commercial entity will be responsible for documenting and ensuring that the permitted harvest from Forest Service lands does not exceed the allowed weight for that year and that all provisions of the permit are followed. Positive monitoring results would allow for the incremental increase of harvest limits for that permit holder in following years. If harvest in any area is determined to

exceed the conditions of the permit that area may be closed to commercial harvest and the permit holder may have reduced harvest limits the following year or that permit may be cancelled.

Compliance with Other Laws and Regulations

ANILCA Section 810, Subsistence Evaluation and Finding - The effects of this project have been evaluated to determine potential effects on subsistence opportunities and resources. Spruce tips are known to be important to subsistence and personal uses and the Forest Service recognizes that those uses must be met before commercial harvest can occur. Based on permit requirements for this project the availability of spruce tips for subsistence or personal use will not be affected.

National Historic Preservation Act of 1966 - The Forest Service program for compliance with the National Historic Preservation Act includes locating, inventorying and nominating all cultural sites that may be directly or indirectly affected by scheduled activities. This activity has been determined to have no potential to effect historic properties.

Executive Order 13007 - This order directs federal agencies to accommodate access to and ceremonial use of American Indian sacred sites by Indian religious practitioners and to avoid adversely affecting the physical integrity of such sacred sites. The proposed action will not limit access to or ceremonial use of sacred sites by Indian religious practitioners and will not adversely affect the integrity of such sites.

E.O. 13175 (Consultation and Coordination with Indian Tribal Governments) – The following federally recognized tribal governments and organizations were contacted via the scoping letter. In addition, the Sitka Tribe of Alaska was briefed by the District Ranger during monthly coordination meetings.

- Sitka Tribe of Alaska
- Angoon Community Association
- Organized Village of Kake
- Central Council Tlingit and Haida

Agencies and Persons Contacted

The Sitka Ranger District mailed or emailed scoping letters to 79 individuals, businesses, tribal governments, tribal corporations, and local and state governments. Tribal governments and organizations were mailed scoping letters on December 11, 2014. Public and local governments were mailed scoping letters on Jan 2, 2015. Personnel from the Sitka Ranger District also updated the Sitka Tribe of Alaska at their monthly meetings, and met with the Kayaani Commission to describe the project on January 16, 2015.

Two comments were received during the scoping process:

One comment was received by the Sitka Tribe of Alaska expressing concern over the amount of spruce tips that could be authorized for commercial harvest and concern over the commercial use of raw products. They suggested a maximum commercial harvest of 3,000 pounds, with a joint review after the first annual monitoring. Permit provisions were established to mitigate the effect of spruce tip removal on all trees available to subsistence users in the community. Opportunities will be provided for jointly reviewing the monitoring results.

Another comment was received by the general public expressing support for the harvest of renewable resources, and concern about a Sealaska heritage site that may be within the locations allowed under the permit. It was determined that the property was not National Forest System land and therefore commercial harvest would not be authorized for that location.

Literature Cited

USDA Forest Service, 2008. 2008 Land and Resource Management Plan, Tongass National Forest.

Deal, R.L., R.J. Barbour, M.H. McClellan, D. L. Parry. 2003. Development of epicormic sprouts in Sitka spruce following thinning and pruning in south-east Alaska. *Forestry*, Vol 76, No. 4, p. 402-412.

Kayaani Commission, 2006, Ethnobotany field guide to selected plants found in Sitka, Alaska. Published by Sitka Tribe of Alaska.