# **Preliminary Proposal**

The following proposals are designed to re-establish hydrologic function to preserve wilderness character, its natural quality and to increase the area's untrammeled and undeveloped qualities.

There are approximately 214 miles of existing road in the Cube Cove project area. They are classified as decommissioned roads but still have culverts and bridges installed that move water across roads. There are 153 miles of streams where trees were harvested in nearby riparian areas, lending to a downward trend in the condition of hydrologic function. Although roads, culverts, bridges and declining stream conditions exist across the entire project area, the project is designed to address only those areas where natural processes are not expected to recover functioning condition and wilderness character.

This document would analyze a proposal to restore hydrologic function and preserve wilderness character by completing road decommissioning, stream rehabilitation, and riparian thinning (see Figures 1-6). To meet the purpose and need in the Cube Cove project area, the Admiralty Island National Monument proposes to:

- Remove culverts, bridges, and road prism material (compacted rock) where road features have a
  high¹ (22 locations) or moderate (28 locations) potential to divert streams resulting in long term
  impacts to water quality and fish passage. This includes removing all bridges and removing
  culverts or road prism material at drainage locations which have potential to divert streams,
  reduce water quality, impact fish habitat, or impede subsurface drainage that has altered
  wetland function.
- Restore large wood in three stream reaches identified as non-functioning that are expected to further degrade.
- Thin (cut) approximately 500 acres of young growth trees in riparian areas where: (i) timber
  harvest occurred in the riparian management area of Class I and Class II (fish) streams, (ii)
  riparian stands are of appropriate age for thinning treatments, and (iii) conifers are the
  dominant stand species. In areas adjacent to stream restoration, thinned trees will be used for
  large woody debris structures.
- Thin no more than 700 acres of young growth trees in riparian areas within 100 to 300 feet of
  the edges of Florence and Peanut Lakes, and Lake Kathleen, where past logging activities left
  little to no old growth buffers. The distance and acreage of thinning would be determined at the
  project level dependent on vegetation, landform and soil conditions (Tongass Forest Plan,
  Appendix D, 2008)

Project actions associated with these projects may include:

- A. Using heavy equipment such as excavators, dump trucks, and lowboy trailer to remove culverts, remove landslide material, and remove bridges and restore drainage across the road.
- B. Using chainsaws, crosscut saws, cables, winches, and hand tools such as shovels and pulaskis to cut riparian trees and maneuver them for instream placement along stream restoration reaches.

<sup>&</sup>lt;sup>1</sup> Diversion potential rating is based on how severely backwatered flow would be diverted from its natural/original flow path. For example, high potential to divert streamflow is defined as flow that would easily be transported a considerable distance horizontally from its natural/original flow path.

- C. Installing a temporary bridge using large equipment to provide access to Kathleen Creek Watershed.
- D. Potentially using explosives if remote and inaccessible treatment sites are identified as high or moderate potential to divert streamflow. A helicopter could be used to transport materials and potentially people to isolated sites. If landings are required, a landing zone (LZ) will need to be established.
- E. Creating and using a field camp (or camps) to support project activity.
- F. Using vehicles to transport work crews, equipment, and fuel to and from work sites.
- G. Hauling culvert and bridge materials to the dock at the old Cube Cove log transfer facility (LTF) and a barging them to a landfill for disposal.

Because of the large size of this project area, limited access prior to the purchase, and the limited amount of time available after the purchase to do hydrologic surveys, only a portion of the Cube Cove road and stream system has been surveyed to determine existing condition and potential risk to water quality, fish passage, and fish habitat. The roads and streams which have been surveyed are highest priority due to stream value relative to fish. Other roads and streams which have not been surveyed may have additional drainage issues or be in poor condition leading to water quality and fish habitat impacts. This proposal includes restoring hydrologic function to any additional road locations identified as having a high or moderate potential to divert streamflow or stream reaches identified as being in non-functioning condition with risk of further degrading.

All restoration would occur within the bounds described under "How will we minimize impact?".

#### How will we minimize impact?

Restoration actions will be planned to work efficiently and minimize impacts to the wilderness resource. Road access work and thinning would be completed first; culvert and bridge removal and other restoration work would begin after road access is established and would be completed at the highest elevation/furthest reaches first and working back to the LTF.

Any mechanized or prohibited uses will undergo a Minimum Requirement Analysis (MRA) to find the action along with the minimum tool necessary to complete the job. Heavy equipment work will occur in two to five field seasons (1-3 months of the summer) or less and will occur on or from existing road prisms. Hand tool operations may take no more than five seasons.

Soil and Water Best Management Practices will be implemented including designated fueling locations, streamflow diversions as needed, invasive weeds BMPs, and silt fencing or other erosion control materials. All operations within fish bearing streams will occur within fish timing windows and will be permitted according to state and federal regulations. Stream and other relevant forest resources will be inventoried to update data in GIS layers for forest inventory and management.

Any field camp/s will be in already established areas and consist of temporary structures and facilities such as portable toilets. All refuse and waste will be removed from the site at the end of each field season.

Personnel working at the site will practice leave no trace ethics.

# **Project Area**

The project area covers 22,890-acres in southeast Alaska on the west side of Admiralty Island. It contains the Cube Cove area, Peanut Lake, Lake Kathleen, Ward Creek, and many associated tributaries (see Figures 1-6). The area was surrounded by, and is now part of, the Tongass National Forest and Kootznoowoo Wilderness.

# Why here? Why now?

In January 2020, the U. S. Forest Service completed the purchase<sup>2</sup> of 22,890-acres in southeast Alaska on the west side of Admiralty Island, in the vicinity of Cube Cove. The area was surrounded by, and is now part of, the Tongass National Forest and Kootznoowoo Wilderness. About 80% of the acquired land, including riparian habitat, is impacted by past timber harvest and road building. Shee Atika, Inc. began the road decommissioning process in the Cube Cove area by removing many culverts and bridges and installing some waterbars where water flows across roads. Nonetheless, many roads, culverts and bridges remain.

The roads and culverts in the Cube Cove project area have altered hydrologic connectivity resulting in diverted streams and decreased wetland function. Some streams and riparian areas are in poor (nonfunctioning or functioning at risk) condition that are affecting hydrologic function such as water quality, aquatic habitat, and hydrologic connectivity. These developments, as well as bridges in the project area, have not been maintained, thus continue to degrade, and contribute to potential risk to aquatic species. The roads, culverts and bridges are also non-conforming, human-made structures. These developments degrade the untrammeled, undeveloped, and natural character of Wilderness and have negatively impacted project-area fish.

Nearly 700 acres of trees within 300 feet of several lakes and Ward Creek were logged. Existing small, closely-spaced trees are not providing the shade and sources of nutrients, energy, and large woody debris that old growth provided for these water bodies and their riparian areas. Terrestrial functions have also been lost in these areas.

The timing of action in this area is critical to the resource conditions and the cost and efficiency of implementation. Maintenance of these roads has stopped. Landslides and culvert blockages are continuing to occur with high precipitation events. This not only degrades the resources further but also makes access more difficult. Thus, the sooner these proposals occur, the less opportunity for catastrophic failure of roads or culverts and the more effective, in terms of time and cost, these actions will be.

Because the Cube Cove area became wilderness upon purchase by Forest Service, this area must be managed in accordance with the Wilderness Act as well as the Alaska National Interest Land Act (ANILCA), the designating legislation for the Kootznoowoo Wilderness. To meet the constraints and

<sup>&</sup>lt;sup>2</sup> The Forest Service purchased surface rights, meaning the right to use the surface of the land in connection with the property including entering and occupying the surface of the land. Additionally, no work is proposed on conservation easements retained by Shee Atika, Incorporated; conservation easements will be avoided. Consultation with all affected Alaska Native Tribes and corporations has begun and will continue, as desired, throughout this project to identify all issues that should be considered as part of this analysis.

allowances in that wilderness legislation, our "purpose and need" and proposal focus on restoring wilderness character in the new Cube Cove portion of the Kootznoowoo Wilderness.

### **PURPOSE & NEED**

The purpose of this project is to restore and preserve wilderness character in the Cube Cove portion of the Kootznoowoo Wilderness through re-establishing hydrologic function and restoring and maintaining fish production on the acquired lands (project area). Action is needed to meet wilderness management direction and move the project area towards a more functioning condition and the desired condition as described in the 2016 Tongass Land and Resource Management Plan (Forest Plan).

In the Cube Cove Project Area, there is a need for:

- Intact wilderness character, particularly natural, untrammeled and undeveloped.
- Functioning (unimpaired) watersheds; this includes:
  - Unimpeded stream connectivity and fish passage across roads.
  - Surface and groundwater connectivity across roads for hydrologic function in wetlands and floodplains.
  - Large wood instreams and on floodplains for fish habitat and channel stability.
- Fish habitat that is maintained and improved. Overall aquatic habitat quality that is good or excellent and allows fish to thrive due to good water quality and other habitat features.

# **Wilderness Management Direction**

Section 2(c) of The Wilderness Act states: "...An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable..." (Public Law 88-577 Section 2(c))

Section 4(b) of the Wilderness Act states: "Except as otherwise provided in this Act, each agency administering any area designated as wilderness shall be responsible for preserving the wilderness character of the area and shall so administer such area for such other purposes for which it may have been established as also to preserve its wilderness character." (Public Law 88-577 Section 4(b))

Section 1315 (b) Aquaculture of ANILCA states "In accordance with the goal of restoring and maintaining fish production in the State of Alaska to optimum yield levels and in a manner which adequately assures protection, preservation, enhancement, and rehabilitation of the wilderness resource, the Secretary of Agriculture may permit fishery research, management, enhancement, and rehabilitation activities within national forest wilderness and national forest wilderness study areas designated by this Act."

ANILCA Section 1315 continued. "...Reasonable access solely for the purposes of this subsection, including temporary use of motorized equipment, shall be permitted in furtherance of research, management, rehabilitation and enhancement activities subject to reasonable regulations as the Secretary deems desirable to maintain the wilderness character, water quality, and fish and wildlife values of the area.

Forest Service Manual (FSM) 2320.3 (4) Cease uses and activities and remove existing structures not essential to the administration, protection, or management of wilderness for wilderness purposes or not provided for in the establishing legislation.

FSM 2323.34 - Fisheries Management. Emphasize quality and naturalness in managing fisheries in wilderness (FSH 2309.19).

FSM 2323.43a - Watershed Condition Improvement. (FSM 2522). Use watershed improvements to restore watersheds where deteriorated soil and hydrologic conditions caused by humans or their influences create a serious threat or loss of wilderness values. Watershed condition improvements are also appropriate where natural conditions present a definite hazard to life or property; or where such conditions could cause serious depreciation of important environmental qualities outside of the wilderness. Promote natural healing where such dangers are not imminent or where natural vegetation would return in a reasonable time.

FSM 2320.3 Policy, Alaska Region Supplement No. R-10 2300-2008-2 states: "The principle of nondegradation of conditions existing on the date the area was established will guide the management of designated wilderness ... to the extent consistent with ANILCA.".

Tongass National Forest Land and Resource Management Plan (Forest Plan) states desired conditions on page 3-5: "The wilderness portions of Admiralty Island and Misty Fiords National Monuments are characterized by extensive, unmodified natural environments. Ecological processes and natural conditions are not measurably affected by past or current human uses or activities."

The Forest Plan applies the following Soil and Water, Watershed Resource Improvement (SW4) guidelines: "Undertake watershed improvements only where deteriorated soil and hydrologic conditions caused by humans or their influences create a threat or loss of wilderness values, or where such conditions could cause serious depreciation of important environmental qualities outside of the Wilderness...."

Forest Plan Objectives of the Riparian Forest Wide Standards and Guidelines (RIP1) that apply to wilderness include: "Maintain natural streambank and stream channel processes," (A.3), and "maintain natural and beneficial quantities of large woody debris over the short and long term," (A.4).

A Minimum Requirements Analysis (MRA) is underway to meet the requirements of the Wilderness Act and the Tongass Land and Resource Management Plan. The MRA will help identify a course of action that exerts the least amount of impact on the wilderness. Input from the MRA and this prescoping process will be considered when developing the proposed action.

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Juneau phens Passage Admiralty Island Chichagof Island Legend Project Area Non National Forest Tongass National Forest Project Area Vicinity National Forest

Figure 1: Cube Cove Restoration Project Area and Vicinity

Legend Admiralty Island Riparian Thinning Stream Class I & II Proposed Thinning Area 500ft Contour Young Growth - Roads Old Growth Culverts Not Yet Evaluated Lakes Map Extent and Project Area 20 Miles Jim's Cove Chatham Strait Peanut Lake Kathleen cument Path: T:\FS\NFS\Tongass\Project\ANM\CubeCoveRestoration2022\GIS\MapProducts\PreScoping\MainRoadNorth.mxd

Figure 2: Cube Cove Restoration proposals along the northern section of the main road

Legend Road Project Opportunities Riparian Thinning Concern Type Proposed Thinning Area Bridge Young Growth Culvert Old Growth Lakes Drainage No Culvert Erosion Proposed Stream Projects Wetland Stream Class I & II Concern Level 500ft Contour Roads High Culverts Not Yet Evaluated Moderate 10 20 Admiralty Island Map Extent and Project Area cument Path: T.\FS\NFS\Tongass\Project\ANM\CubeCoveRestoration2022\GIS\MapProducts\PreScoping\MainRoadSouth.mxd

Figure 3: Cube Cove Restoration proposals along the southern section of the main road

Legend Admiralty Island Road Project Opportunities Riparian Thinning Concern Type Old Growth Drainage No Culvert ♦ Erosion Concern Level Stream Class I & II Map Extent and Project Area Lake Kathleen

Figure 4: Cube Cove Restoration proposals upstream of Lake Kathleen

Document Path: T:\FS\NFS\Tongass\Project\ANM\CubeCoveRestoration2022\GIS\MapProducts\PreScoping\LakeKathleen.mxd Date Saved: 3/17/2022 2:38:04 PM

Figure 5: Cube Cove Restoration proposals along Ward Creek

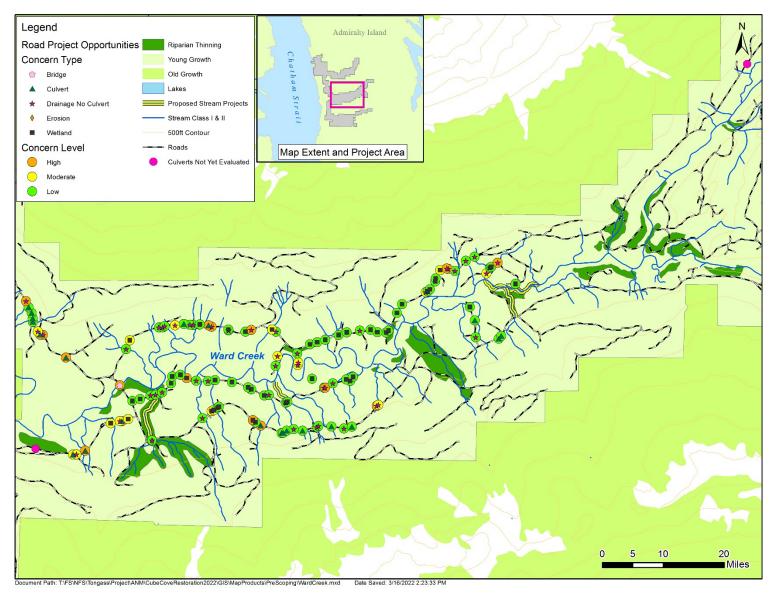


Figure 6: Cube Cove Restoration proposals near Florence Lake

