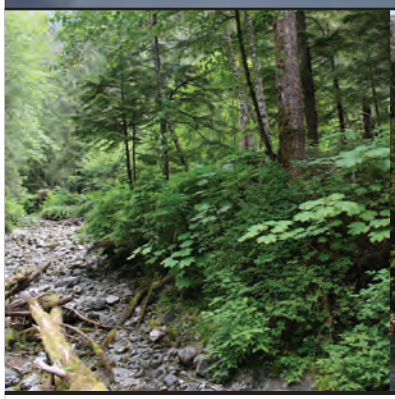
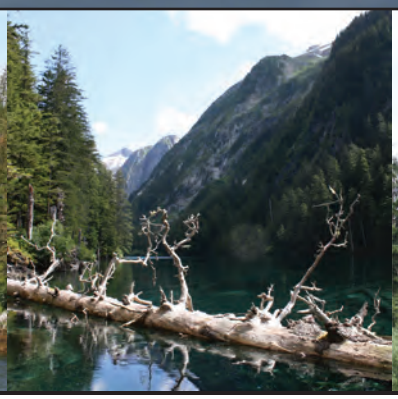
Takatz Lake Hydroelectric Project: Scenery Resources Report

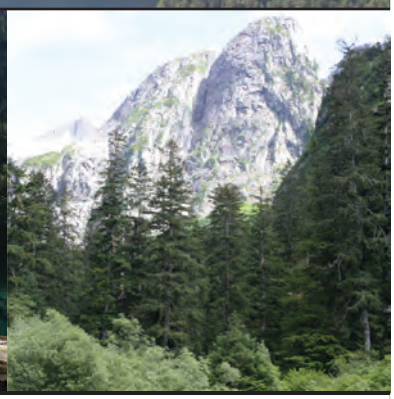
FERC No. 13234-002

August 2013

Electrical Department







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SCENERY RESOURCES REPORT

Executive Summary

In February, 2008, the City and Borough of Sitka Electric Department received a Preliminary Permit for the Takatz Lake Hydroelectric Project (Project) from the Federal Energy Regulatory Commission (FERC) in Washington DC. This project is currently identified as FERC No. 13234-002. The Project would be located approximately 18 miles from Sitka, Alaska, on Baranof Island with new hydroelectric facilities at Takatz Lake and a transmission corridor running south from Takatz Bay to Baranof Lake and then west along Baranof River to Medvejie Lake before tying into the existing transmission lines along Silver Bay. These facilities are located on both federal lands managed by the USDA Forest Service and non-federal lands which are outside the jurisdiction of the Forest Service. The project is located on Value Comparison Units 3170, 3260 and 3250.

During Initial Consultation and Scoping, Project Stakeholders indicated a concern for the Project impacts on scenic and aesthetics resources on lands managed by the US Forest Service (USFS). The USFS requested potential impacts on the scenery resource be inventoried, evaluated and analyzed based on the USFS Handbook for Scenery Management (USFS, 1995) and the Tongass National Forest Land and Resource Management Plan (USFS, 2008) (Forest Plan). The framework for scenery management included three phases of work; 1) inventory, 2) develop standards and 3) determine the effects of the Project on scenery. Based on this analysis, the effects of the project were evaluated to determine impacts to the existing landscape and whether these impacts to the scenery are acceptable.

The scenery inventory for the Project was carried out in the summer of 2011 and concluded in the early winter of 2012. Based on this inventory, the Project area is defined as having the following scenery attributes:

- 52% Distinctive and 48% Typical Inherent Scenic Attractiveness
- From Visual Priority Travel Routes and Use Areas, the Project area is comprised of 5% foreground, 33% middleground, 18% background, and 44% unseen.
- All, except 0.002% of the Project area, has a Very High Existing Scenic Integrity.
- 50% of the landscape has a High Visual Absorption Capacity, with the remaining 28% Intermediate and 22% Low.

The Scenery Management System (SMS) establishes an overall framework for orderly inventory, analysis and management of scenery on lands administered by the USFS. Established scenery guidelines, goals and objectives are listed in the Forest Plan. Scenery guidelines, known as Scenic Integrity Objectives (SIOs), provide acceptable scenic modifications for human-based activities for all management activities on USFS lands.

The Forest Plan states “Manage the scenery of the Forest in order to achieve the adopted Scenic Integrity Objectives.” SIOs are established in the Forest Plan and are based on Distance Zones and Land Use Designations (LUDs). Visual Comparison Unit (VCU) 3170, 3260 and 3250 are defined by two LUDs: Remote Recreation and Semi-remote Recreation. In addition to the two LUDs, the Project area has a third LUD. This LUD is Transportation and Utility System (TUS) and is in place to support the development of state and federal highways, railroads, public hydroelectric power projects and associated facilities and would include the Takatz Lake Hydroelectric Project. A TUS LUD is defined as an “Overlay LUD” where the underlaying initial LUDs, Remote Recreation and Semi-remote Recreation, remain in effect until that time where the initiation of construction, and during system operation of the TUS facility, this management prescription will apply. Within the TUS corridor, the underlaying LUDs continue to exist but are superseded by the TUS only for the allowable uses prescribed by the TUS. The TUS LUD applies only to the project limits/corridor necessary for the infrastructure and maintenance of facilities required as part of the TUS development. The three VCUs include 64% designated as Remote Recreation and 39% designed as Semi-Remote. A total of 15.7 miles of TUS LUD overlays the three VCU on USFS lands.

Scenic Integrity Objectives (SIOs) establishes scenery standards for management and the degree to which the

landscape must be retained intact or be visually perceived as modifications by human activities. SIOs include; High (landscape visually intact), Moderate (landscape appears slightly altered), Low (landscape appears moderately altered with deviations dominating the landscape) and Very Low (modifications dominate the landscape).

Based on the Forest Plan, Adopted SIO for each LUD is as follows (same for each distance zone):

- Remote Recreation LUD: High SIO
- Semi-remote Recreation LUD: Moderate SIO
- Transportation and Utility System LUD: Low SIO

Activities within the Low SIO may visually dominate the characteristic landscape, but must have visual characteristics similar to those of natural occurrences within the surrounding area or character type. This SIO should be met within 1 year in the foreground distance zone and within 5 years in the middle and background Distance Zones following Project completion. When planning activities, use naturally established form, line, color, and texture found in the landscape. Siting and design of facilities should borrow from naturally occurring patterns in the landscape, and should not be visually dominant when viewed in the background distance zone.

To understand the Project effects on Scenic Integrity, three-dimension digital visual simulations were generated to document the expected effects of the Project on scenery on USFS lands. Two simulations were created from each viewpoint. The first shows the existing conditions and second shows the expected impacts based on the facilities and structures, clearing limits, terrain modifications, and impacts to the landscape as described in the Takatz Overhead Transmission Line Alternative Feasibility Review Report Study (Commonwealth Associates, Inc., 2012). The simulations were created using Quantum Geospatial Information System (QGIS) and three-dimensional visualization software for outdoor environments. The simulations were developed to show the expected visual impact of the Project after five years, scenery requirements in the Forest Plan mandate modifications to the landscape must obtain the required SIOs in the middleground and foreground as mandated by scenery requirements in the Forest Plan. Only effects within the seen landscape on USFS lands are evaluated.

Based on the expected visual impacts to the landscape on USFS lands shown in the simulations the following are the areas of concern:

VCU 3170:

- None expected. Expected Scenery Integrity effects will be consistent with a Low Scenery Integrity Objective as allowable in the Forest Plan.

VCU 3260:

- Expected Scenery Integrity effects will be consistent with a Low Scenery Integrity Objective as allowable in the Forest Plan with the following exceptions:
- Chatham Strait adjacent Takatz Bay: The clearing limits of corridor may be visible in the background distance zone from Sta. 8947’ (elev. 641.5) at the top of the knoll and again between Sta. 9946’ (elev. 890) and Sta. 11184’ (elev. 1062) and is expected to dominate the visual landscape beyond five years. This is not consistent with the Forest Plan.
- Chatham Strait adjacent Warm Springs Bay: The clearing limits will be visible in the background at Sta. 24000’ and Sta. 24485’, and again between Sta. 28000’ and Sta. 36400’ and is expected to dominate the visual landscape beyond five years. This is not consistent with the Forest Plan.
- Baranof Lake: Transmission lines in foreground along portions of Baranof Lake are expected to meet the Low SIO immediately after construction and is consistent with the Forest Plan. Steep slopes with wide clearing limits on the uphill side of the transmission line and transmission structures will be viewed from the USFS Baranof Lake Cabin and Baranof Lake. Moving towards a Moderate SIO may be appropriate, if feasible, due to recreation use on lake and at the cabin.

VCU 3250:

- Expected Scenery Integrity effects will be consistent with a Low Scenery Integrity Objective as allowable in the Forest Plan with the following exceptions:
- Silver Bay: Clearing limits and transmission structures are expected to be seen in the middleground distance zone between Sta. 76212' (2855' elevation) and Sta. 77000' (1800' elevation). Effects are expected to dominate the visual landscape beyond five years is not consistent with the Forest Plan.

Other Potential Areas of Concern:

There are several informal recreation facilities (trails and use areas) that are not catalogued as Visual Priority Travel Routes or Use Areas (VPRs) in the Forest Plan and have been identified in the Takatz Lake Hydroelectric Recreation Resource Study Report (Anderson Land Planning and Agnew:Beck, 2012). These include:

- Medvejie Lake Basin (dispersed recreation area used for hiking, paddling, camping, and hunting)
- Baranof Cross Island Trail (sixteen mile informal trail from Medvejie Lake to Baranof Lake)
- Sadie Lake Trail (one mile informal trail from Baranof Lake Trail to Sadie Lake)

Although not listed as VPRs, these travel routes and use areas are used in a limited capacity to gain physical and visual access to the Forest. It may be desirable to update 'unseen' landscapes to 'seen' landscape for those areas expected to be viewed from the use areas listed above. Additionally, if feasible, it may be desirable to increase the SIO from Low to Moderate for these areas as the new SIO would be consistent with the Semi-remote Recreation Land Use Designation. Adding VPRs is possible through a Forest Plan amendment, however this action would require further environmental analysis.

Cumulative Effects:

Cumulative Effects takes into consideration not only this Project but also other anticipated projects within the area. There are no known other planned projects in the area or anticipated future modifications to the Project.

Cumulative Effects analyzes the visual impacts to the whole project area within the reasonable foreseeable future and expected change in the Existing Scenic Integrity (ESI) as a result of the Project. ESI is a measure of the degree to which the landscape is perceived as whole, complete, or intact without any alterations or modification to the scenery by human activities. As indicated in the analysis, the ESI for the project area (VCU 3170, 3260 and 3250) is comprised of a Very High (1) rating with all except 0.002% of the character landscape being intact or unaltered.

Based on analysis of this Project, it would be expected that the following changes will be made to the ESI.

7% of the Project area would be modified from a ESI 1 to a proposed Scenic Integrity of Class 4, Low, where the landscape appears moderately altered with deviations begin to dominate the landscape character. This would be along Baranof Lake, Sadie Lake, and portions of the Baranof River, where the clearing limits would contrast with the existing forested landscape.

4% of the Project area would be modified from a ESI 1 to a proposed Scenic Integrity of Class 3, Moderate, where the landscape appears slightly altered where noticeable deviations are visually subordinate to the landscape character. This would be in the alpine above Takatz Bay and Sadie Lake and the lower elevations above Medvejie Lake.

Less than 1% would be modified to a proposed Scenic Integrity of Class 2, High, where the character landscape appears intact. This would be the upper elevation portion above the Medvejie Lake.

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INTRODUCTION

The City and Borough of Sitka Electric Department (City) holds a Preliminary Permit from the Federal Energy Regulatory Commission (FERC) for the proposed Takatz Lake Hydroelectric Facility and Transmission Corridor Project (Project), FERC No. 13234-002-AK, the Project will proceed under steps required under FERC regulations.

During Initial Consultation and Scoping, Project Stakeholders including Alaska state and federal resource agencies indicated concern for the impacts on scenic and aesthetics resources relative to construction activities and Project features including the dam, reservoir inundation, powerhouse, and transmission lines (FERC, 2009; FERC, 2010). Due to a majority of potentially-affected aesthetics resources being located on lands managed by the US Department of Agriculture Forest Service (USFS), the impacts to scenery resources were inventoried, evaluated and analyzed based on current scenery management procedures mandated by the USFS and the Tongass National Forest Land and Resource Management Plan (USFS, 2008) (Forest Plan).

This study plan describes the analysis to examine and quantify existing scenery resources and to evaluate potential project-related effects on those resources.

Scenery is defined as the general appearance of a place, general appearance of a landscape, or features of a landscape (USFS, 1995). Scenery is a resource found within the Tongass National Forest (TNF) much like recreation, timber, or wildlife. As a resource, it represents the attributes, characteristics, and features of landscapes that provide varying responses from and varying degrees of benefits to humans (USFS 1995). People who visit public lands are concerned about the quality of the scenery around them and have an impression of what they expect to see when they visit public lands (Newby, 1971). For many visitors and those that live within the TNF there is an expectation that the Forest provides visually appealing scenery, with emphasis on areas seen along the Alaska Marine Highway, tour ship and small boat routes, state highways, Forest roads, and from popular recreation places (USFS, 2008, pp. 2-6).

To understand the significance of the scenery resource for the project area, it needs to be inventoried, classified, and managed with an understanding that the scenery resource might be altered by human based activities. These activities may or may not visually alter the characteristic landscape. Scenery assessment includes the analysis of landscapes that allow informed management decisions based on the Forest Plan (USFS, 2008) and how people value the scenery of the TNF.

This scenery resources report is for the Takatz Lake Hydroelectric Facility and Transmission Corridor. The Project is comprised of a 27 megawatt hydroelectric dam facility on Takatz Lake and penstock leading to a powerhouse located at tidewater on Takatz Bay. From the powerhouse, transmission lines follow one of several alternative routes from Takatz Bay, to Baranof Lake, along the Baranof River Valley, over Baranof Mountain, and down into Medvejie Lake valley and tie into the existing Green Lake transmission lines adjacent Silver Bay. In addition to the utility corridor, an access road would be constructed between the powerhouse and a dock on Little Takatz Bay. The electric generation portion of the Project, including the lake, dam facility, penstock and powerhouse, is located on non-federal lands. A large portion of the transmission corridor and a portion of the road are located on federal lands. The Project includes 17.9 miles of transmission corridor, of which 15.7 miles are on USFS lands. The Project includes 3.5 miles of road between the powerhouse and dock facility, of which 1.5 miles of road are on USFS lands. The Project lies within three Value Comparison Units (VCUs) which are under the management of the USFS: 3170, 3250 and

3260. VCUs are comparable to large watersheds and generally follow major topographic divides. This scenery resource report only includes portions of the Project located on federal lands managed by the USFS where the agency has jurisdictional rights on this Project.

Scenery is evaluated from locations and routes that an observer of the TNF uses to gain physical and visual access to the TNF. These travel ways and use areas are identified as Visual Priority Travel Routes and Use Areas (VPRs). VPRs are inventoried and catalogued by the USFS based on public input and validated through public participation and then listed in the Forest Plan. VPRs for the TNF can be water or land-based. All scenery work is based from these routes and use areas. The landscapes that can be visually accessed from these locations are classified as *seen* and are included in the analysis areas. The landscape that is *not seen* from VPRs is not included in the analysis nor are lands that are not managed by the USFS.

This Report inventories, classifies, and analyzes the scenery resources and expected modifications by the Project to the scenery resources on the federal lands managed by the USFS. The Report is organized as follows:

- **Analysis/Inventory Methodology:** Describes the methodology used for analysis and inventory of scenery resources.
- **Inventory of Affected Environment (Existing Conditions):** Description of Project Area, Landscape Character Types, Inherent Scenic Attractive Classes, Visual Priority Travel Routes and Use Areas, Distance Zones, Key View Points, Existing Scenic Integrity, Site Productivity, and Visual Absorption Capacity for the Project area.
- **Management Direction and Standards:** Description of desired Landscape Character, Scenic Integrity Objectives, and other scenery related goals and objectives.
- **Scenery Effects Predictions:** Proposed Scenery Effects, cumulative effects to Landscape Character, cumulative effects to Scenic Integrity, and mitigation and scenery protection measures.

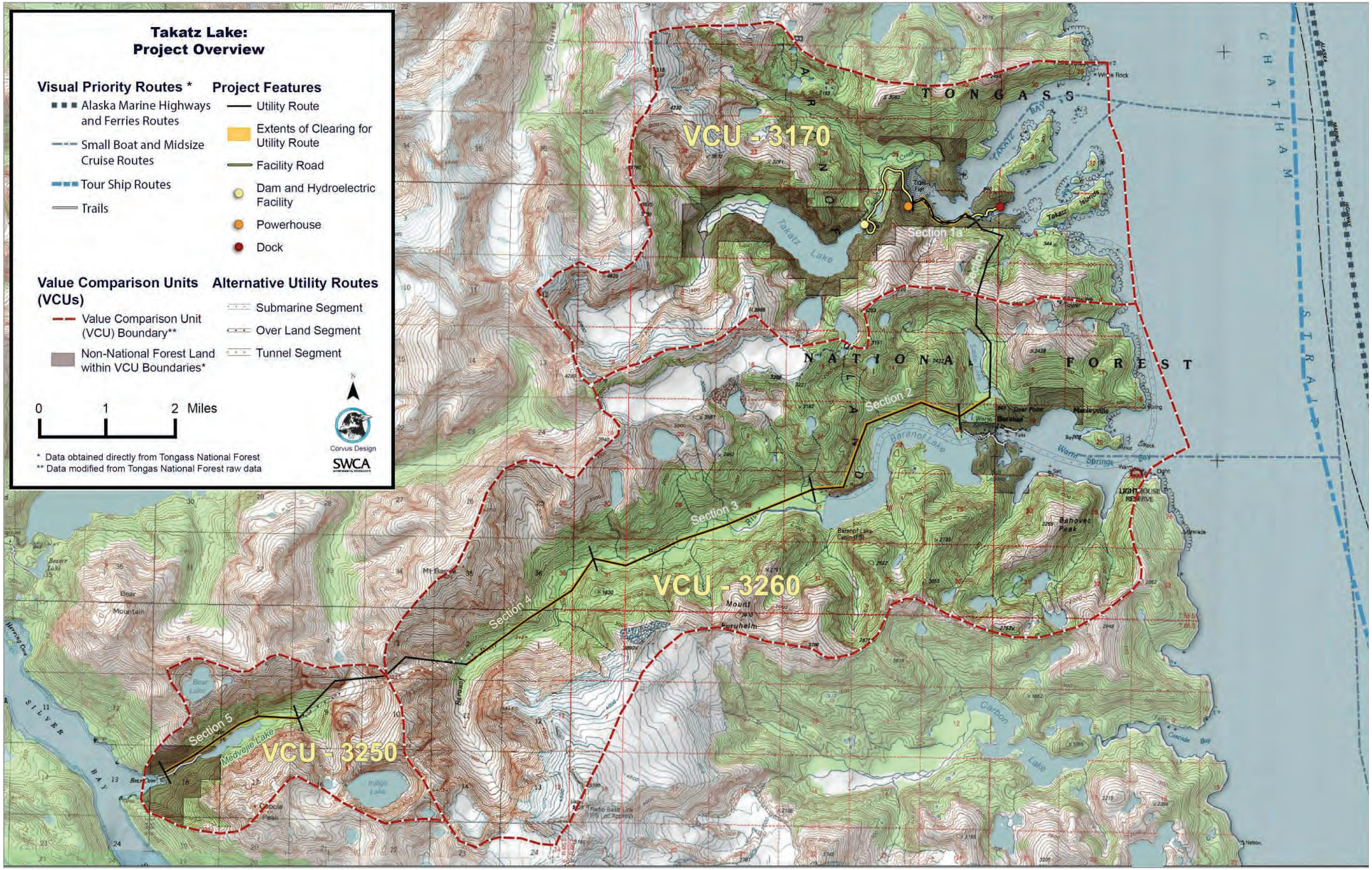


Figure 1. Scenery Resources Analysis Area for Takatz Lake Hydroelectric Project.

ANALYSIS/INVENTORY METHODOLOGY

The TNF uses the Scenery Management System (SMS) as the framework for integrating scenery management into all levels of USFS planning. The SMS evolved from and replaced the Visual Management System defined in Forest Service Agriculture Handbook #462 (USFS, 1974). The SMS is described in Agriculture Handbook #701 (USFS, 1995).

SMS is implemented as part of the forest planning process and includes three phases of work to inventory, develop standards, and determine the effects of the Project on scenery. The phases of SMS are as follows:

- Analysis/inventory of existing conditions
- Establishment of management standards and objectives
- Determine extent, magnitude and duration of effects of the Project.

This section looks at the first phase of work, analysis/inventory phase, and catalogues and verifies the existing forest visual characteristics as viewed from Visual Priority Routes (VPRs). The inventory process results in the development of Visual Absorption Capacity (VAC) and Scenic Integrity Objectives (SIOs) based on the analysis area and sets resource management guidelines related to impacts on scenery. The management guidelines are found in the following section of this Report. The inventory phase is recorded as mapping and as 35 mm photographs from Key Viewpoints along VPRs. Geographic Information System tools provided assistance in the development of the mapping. The inventory is developed as a sequence of analysis based on SMS and scenery guidelines within the Forest Plan. Work begins in data collection of existing scenery related documents and maps and all information is field verified from VPRs to reflect current existing conditions. The inventory phase consists of the following steps:

- Determine landscape character type of analysis area.
- Determine scenic attractiveness of landscape based on character type.
- Verify Distance Zones from VPRs and use areas identified in Appendix F in the Forest Plan.
- Analyze Existing Scenic Integrity (ESI) of existing landscape condition.
- Determine VAC of the landscape.
- Determine SIOs based on Forest Plan, Distance Zones, and Land Use Designation (LUD).

The scenery analysis/inventory began in the summer of 2011 and concluded in the early winter of 2012. Fieldwork took place in July 2011.

Scenery work was completed from the Juneau, Alaska office of Corvus Design-Landscape Architects. Corvus Design's project scenery lead is Christopher Mertl, ASLA, Landscape Architect. Mr. Mertl is a former Forest Service landscape architect on the TNF who worked on timber and recreation based projects.

Issues

The key issue related to scenery resources is to identify human-based visual disturbances to the existing seen landscape resulting from management activities. The effects of these activities need to be documented and evaluated to determine the impacts to the existing landscape character and whether these impacts to the scenery are acceptable. Scenery guidelines, known as SIOs, set acceptable scenic parameters for human-based modifications for all management activities on NFS lands (USFS, 1995). These visual objectives also establish a time line for the modifications to meet the scenery guidelines. All modifications will need to meet the SIOs through coordination between the various resources. In some instances mitigation measures may be required to meet the SIOs and allow the management activity.

Guidance

The TNF has two key adopted documents used in the assessment, analysis, and management of scenery. These consist of the Forest Plan (USFS, 2008) and Landscape Aesthetics: A Handbook for Scenery Management (USFS, 1995). These documents guide the process and management of scenery on the TNF and the level of acceptable degree of deviation from the existing landscape character of the TNF created by human activities or alteration. These documents establish Scenic Integrity Objectives (SIOs) for the lands under management of the USFS.

INVENTORY OF AFFECTED ENVIRONMENT

The Takatz Lake Hydroelectric Facility and Transmission Corridor Project is comprised of a 27 megawatt hydroelectric facility that would consist of one or two dams on Takatz Lake and penstock leading to a powerhouse located at tidewater on Takatz Bay. From the powerhouse transmission lines would follow one of several alternative routes from Takatz Bay, to Baranof Lake, along the Baranof River Valley, over Baranof Mountain, and down into Medvejie Lake valley and tie into the existing Green Lake transmission lines adjacent Silver Bay. In addition to the utility corridor an access road would be constructed between the powerhouse and a dock on Little Takatz Bay. The Project is located on a combination of federal lands managed by the USFS and non-federal lands.

For the purpose of analyzing scenery resources, the area of analysis consists of all of the Takatz Lake Hydroelectric Facility and Transmission Corridor (Figure 1) within USFS lands that are viewed from Visual Priority Routes. These areas include all project alternatives proposed in the Project. Areas that are unseen from these routes are not included. The analysis area includes the viewsheds surrounding the management activities for hydroelectric power generation and its distribution, including transmission routing alternatives. The viewsheds encompass the existing resources in areas of direct disturbance and the adjacent seen areas surrounding the disturbance as viewed by an observer of the TNF using travel routes and use areas to gain physical and visual access to the area.

The area potentially affected by the Project is quite large, including three watersheds along the proposed transmission route. As shown in Figure 1, new construction in the Takatz watershed would include a dam up to 200 feet high at the outlet of Takatz Lake, a possibly visible power conduit and a powerhouse and switchyard. The dam would raise water levels sufficient to create significant additional inundation in Takatz Lake, depending on the final dam height selected. The power conduit would consist of an as yet undetermined length of above-ground penstock. Exact dimensions, materials and color of the penstock will be determined, at least in part, by the results of the scenic and aesthetic analysis.

There are currently four configurations of the transmission route (Figure 1). These include an overland option or overland segments combined with three possible alternative segments- two submarine options and a tunnel option.

Power House to Baranof River Valley

The Marine Transmission Alternative (MTA) would consist of overhead and submarine segments routed from the switchyard into Chatham Strait and Baranof Bay continuing through Baranof Lake.

The Overland Transmission Alternative (OTA) would be routed from the switchyard overland to the shore of Baranof Lake via Sadie Lake without being routed through marine areas or the community of Baranof Warm Springs.

Along the Overland OTA, the transmission line would consist of a 69 kilovolt (kV) capacity overhead transmission line to the shore of Baranof Lake. The transmission line would continue underwater through Baranof Lake and would emerge near the confluence of the lake and Upper Baranof River. After emerging from the lake, the line would be overhead through the Upper Baranof River valley.

Baranof River Valley to Medvejie Lake

The second Overland Transmission Alternative (OTA) would be routed from the Baranof River Valley, up the east side of Baranof Mountain and over. Once on the other side of

Baranof Mountain the transmission line would continue down the west side of the mountain overhead into the Medvejie River valley, past Medvejie Lake to the line's junction with the existing transmission line from the City's Green Lake hydroelectric project.

The Baranof Mountain Tunnel alternative would include a tunnel portal on the east side of Baranof Mountain near the 1,000 foot elevation and emerge from the western tunnel portal on the west side of the mountain above the Medvejie valley. The transmission line would continue overhead into the Medvejie River valley, past Medvejie Lake to the line's junction with the existing transmission line from the City's Green Lake hydroelectric project (See Figure 1).

The City has expressed its preference for the OTA over the MTA for the Power House to Baranof River Valley segment due to economic, engineering and environmental reasons. The City has also expressed its preference for the OTA over the tunnel alternative for the Baranof River Valley to Medvejie Lake segment for the same previous reasons. As such this Report focuses the resource studies on the OTA for both segments, which is expected to have the most modifications to the resource by this Project

To evaluate the Project, the extensive area has been subdivided into five study areas.

Area 1 (Non-Federal Lands), Visual Comparison Unit (VCU) 3170, including all areas affected by the dam, reservoir inundation, the power conduit, powerhouse and switchyard;

Area 2 (Federal and Non-Federal Lands), VCU 3170 and 3260, the Overland Transmission Segment area, including areas from the switchyard overland to the shore of Baranof Lake;

Area 3 (Federal Lands), VCU 3260, the Upper Baranof Valley, including the Baranof Valley Transmission Segment, extending from the confluence of Baranof Lake with Upper Baranof River to the eastern portion of Baranof Mountain.

Area 4 (Federal Lands), VCU 3260 and 3250, the eastern portion of Baranof Mountain and down to the Medvejie River Basin.

Area 5 (Federal and Non-Federal Lands),VCU 3250, the Medvejie River Basin, including the Medvejie Valley Segment to the Medvejie River valley, past Medvejie Lake to the proposed transmission line's interconnection with the existing City and Borough of Sitka Green Lake transmission line adjacent to Silver Bay.

Landscape Character Types

The Forest is divided into large ecological units that describe the geology, vegetation, soils, wildlife and other factors that have the same ecological context. Within these ecological units are smaller Landscape Character Types that gives a geographic area its visual and cultural image and consists of the combination of physical, biological and cultural attributes that make each landscape identifiable or unique. Scenery Management System uses Landscape Character Types to categorize the Forest.

The Landscape Character Types recognized for TNF lands are geographic units of land, each having distinguishing characteristics of landform patterns and features, vegetation patterns, surface water characteristics, and land use patterns or cultural features. Landscape character is usually based on total visual characteristics and not upon any one single characteristic, although landform and vegetation may be most influential at times. Descriptions for the TNF are based largely on the work by Nowacki, Shephard, Krosse, Pawuk, Fisher, Baichtal, Brew, Kissinger, and Brock (2001).

The Project is located within Region 5, the Baranof Fiordlands landscape character type as defined by the USFS (USFS, 2005), which is the source for the following summary.

Landforms

The landscape of the Baranof Fiordlands is characterized by steep, irregular, towering mountains and steep-sided fiords along the shorelines. The mountains along the west coast generally slope more gently to saltwater than the mountains along the east coast. Landforms are visually massive, bulky, and stark throughout most of the area, and are typically taller than in the nearby Chichagof or Kootznoowoo Fiordlands. Mountain elevations range from 3,000 to 5,300 feet and snow cover exists year round on the higher summits, which often have cirque glaciers and small permanent icefields. Shoreline forms are often rugged on both the west and east coasts. Rugged headwalls, cliffs, and escarpments are common on the west side. Rock faces are sometimes visible on many steep-sided fiords near saltwater throughout the unit. However, as along most of the west coast of Chichagof Island, there is a narrow band of coastline along much of the west coast which represents a former wave-cut terrace (strandflat) and includes many islands. This terrace is low in elevation (generally < 500 ft.) and dominated by hill and lowland landforms. On the southern portion of Kruzof Island (at the northwestern corner of the area) is a striking landscape dominated by Mt. Edgecumbe, a 3,200 ft. symmetrical volcanic cone. Smaller cones northeast of Mt. Edgecumbe, effectively bisect the island along its center.

Vegetation Patterns

Due to the high average elevation of this area, a very large portion is alpine. Brushy landslide and avalanche chutes frequently dissect mountain slopes. Hemlock-spruce forests cover much of the lower elevations, but these are limited, especially in the southern two-thirds of the area, which is less than 15 percent covered by conifer forests. Up to about 10 to 15 percent of the productive forest land in the north half of the character type has been harvested and most of the second-growth stands that have replaced the original forests are now in the 30- to 40-year age-class. Stunted “krummholz” forests change to open subalpine and alpine communities with increasing elevation. Wetlands are also limited in extent throughout much of the area due to the steepness of the terrain, especially in the southern two-thirds. Larger intertidal grass and associated meadow species are infrequent. Vegetation on the west coast wave-cut terraces is varied with stunted Sitka spruce communities and both forested and non-forested wetlands common. Large areas of storm-pounded rocks that are bare of vegetation are common on the exposed portions

of these terraces.

Water Features

Because of the height of its mountains and its western location, this area receives some of the highest amounts of precipitation in Southeast Alaska (>230 inches per year on southern Baranof Island). Streams are generally short and flow directly to saltwater; most are high gradient-contained and often include cascade reaches. Lakes are plentiful and there are many large glacial-scoured lake basins occurring in hanging valleys, especially in the south half.

Cultural Elements

With the exception of the vicinity of the communities of Sitka and Port Alexander, and in areas that have had timber management, the majority of the landscape shows very little human influence. Timber management has occurred in the north half of the area, where 10 to 15 percent of the productive forest land has been harvested and several hundred miles of road have been developed. However, the majority of this harvest occurred during the 1960s and 1970s, and little harvest has occurred in the past two decades. In and near Sitka, roads are common and buildings and other structures are present.

Comments

The landscape character of this unit contrasts sharply with the adjacent Chichagof and Kootznoowoo Fiordlands and Kupreanof Lowland character types. It is similar in some respects to the Boundary Ranges and Icefields character type, but lacks the variety and scale.

The visual character of the Project area (VCUs 3170, 3260 and 3250) is largely a dramatic version of the typical description above with steep, irregular, peaked mountains rising up from the shorelines. Landforms are massive, bulky, and stark and range from 3,000 to 5,000 feet. The shoreline is rugged and typically bare, but without large vertical rock faces resulting in a lack of high energy shorelines. A large portion of the middle elevations is comprised of alpine vegetation with brushy landslide and avalanche chutes providing textural contrast. The upper elevations are without vegetation and are comprised of bare exposed rock formations. Several large glacial-scoured lake basins occur in the high elevation hanging valleys. Hemlock-spruce forests cover much of the lower elevations with limited wetlands due to the steep terrain, however wetlands are found adjacent to Sadie Lake and Baranof River. One aspect the Project area does differ significantly from the visual character of the Baranof Fiordlands is in the freshwater features. Baranof River is a long flowing river with a gradual grade penetrating much of the width of the island within VCU 3260. The river flows into Baranof Lake and then enters into Warm Springs Bay as a dramatic high energy waterfall. With the exception of the community of Warm Springs Bay, timber harvest and other modifications to the landscape are scarce to non-existent.

Inherent Scenic Attractiveness (ISA) is the primary indicator of the intrinsic beauty of a landscape and of the positive responses it evokes in people. It helps determine landscapes that are important for scenic beauty, as well as those that are of lesser value, based on commonly held perceptions of the beauty of landform, vegetation pattern, composition, surface water characteristics, and land use patterns and cultural features (USFS 1995).

Each landscape character type defined above is subdivided into three scenic attractiveness classes: distinctive (A), typical (B), and indistinctive (C). Each landscape character type has its own indicators of ISA. It is expected that a majority of the landscape will fall within the typical classification. A smaller portion of the landscape will be unique and fall within the distinctive classification or have lower than typical attractiveness rating of indistinctive. Although land use

Inherent Scenic Attractiveness Classes

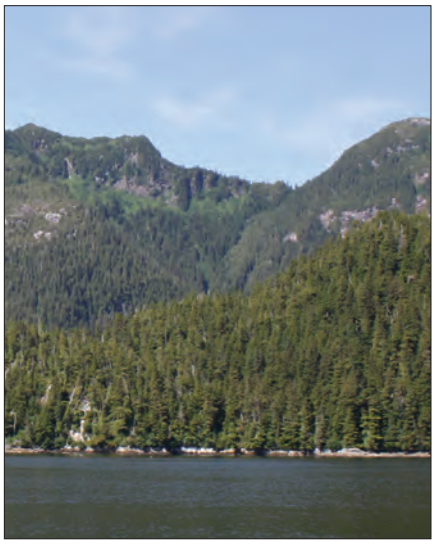


Image 1: Typical ISA, South Takatz Bay looking southwest.

Table 1. Inherent Scenic Attractiveness: Takatz Lake Hydroelectric Project

Inherent Scenic Attractiveness Classification	Forest Service Lands Acres (%)
Distinctive (A)	22,598 (52%)
Typical (B)	21,155 (48%)
Indistinctive (C)	0 (0%)

patterns and cultural features are landscape elements that can influence scenic attractiveness classes, the major portion of the Southeast Alaska landscape shows little to no human influence, with the exception of some limited timber management adjacent to the community of Warm Springs Bay (USFS, 2005). Timber management is treated as a factor affecting the Existing Scenic Integrity (ESI) of an area, and does not typically affect its scenic attractiveness. Table 1 summarizes the total acreage of each class of ISA for the Project area (the analysis area for scenery resources) Table 2 summarizes the ISA classes for Region 5, the Baranof Fiordlands, where the Project is located..

As indicated in Table 1 and Figure 2, the Project area is comprised of nearly a fifty/fifty split of a 'distinctive' and 'typical' Inherent Scenic Attractiveness (ISA). The area is not represented by an 'indistinctive' ISA classification. The Project area is a mixture of both typical (B) and distinctive (A) classification in all three Visual Comparison Units (VCUs).

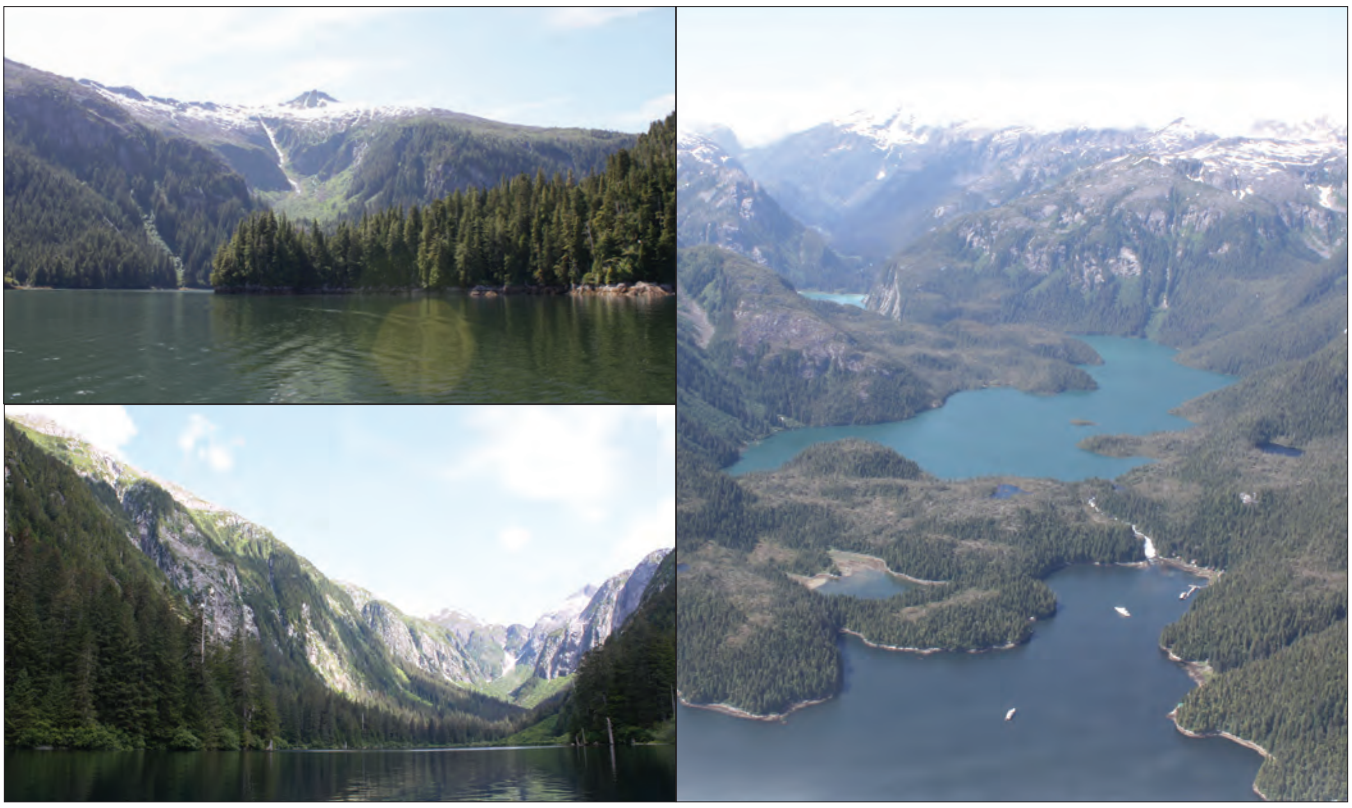
VCU 3170, surrounding Takatz Lake, contains a distinctive classification between the mouth of the lake and shore of Takatz Bay. The highly complex and dissected terrain features angular profiles which dominate the landforms giving way to varied vegetation patterns to the north portion of the VCU. Another distinctive area is found at the head of Takatz Lake with its visually dominant and complex drainage system. All remaining mid to high elevations are classified as typical ISA characterized by moderately complex geologic features that are moderately significant with secondary peaks and escarpments that tend toward codominance with other objects of the visual field with moderately edge contrasts and spatial definition.

VCU 3260 including Baranof Lake and River is largely characterized as a distinctive ISA surrounding the lake and the lower half of the river valley. Characterized by highly complex and dissected terrain dominated by angular profiles and sharply defined crests deeply penetrated by fiords and deep glacial troughs with bold rocky headlands. Geologic features are numerous with highly significant features that dominate or are codominant with other objects in the visual field. Strong edge contrasts and spatial definition with pronounced spatial variety dominate this VCU. The unique character of Baranof River and its long low gradient slope with highly varied vegetative patterns with natural forest openings are sharply defined and tend to dominate or share dominance with other objects of the visual field. The western and northern portion of VCU 3260 is characterized as typical. The

Image 2: Distinctive ISA. Baranof Lake Cabin looking northwest across lake & towards the mouth of Baranof River.

landscape is characterized as moderately complex terrain with blocky well defined crests but lacking the dissected terrain and sharp peaks. These upper elevation features are moderately significant and codominate with other objects of the visual field. The upper reaches of the river valley lack strong edge contrast due to the absence of varied vegetation patterns and natural openings.

VCU 3250 includes the area around Medvejie Lake and is dominated by a distinctive ISA with steep high energy blocky walls rising out of the lake with angular profiles, massive glacially scoured rock walls, and craggy peaks. Vegetation color and texture is highly varied due to the numerous avalanche shoots, lush coniferous forest at the head of the lake, and contrasting blocky treeless peaks resulting in strong edge contrasts and spatial definition. The eastern portion of this VCU is characterized by moderately complex terrain dominated by blocky angular profiles containing secondary peaks. These features tend toward codominance with other objects of the visual field. Vegetation is largely absent from this portion of the VCU. These factors result in a typical ISA for the eastern and southern upper reaches of the VCU.



Top: (Image 3) VCU 3170, Takatz Bay looking west.
Bottom: (Image 4) VCU 3250, Medvejie Lake looking east.
Right: (Image 5) VCU 3260, Warm Springs Bay in the foreground with Baranof Lake in the background.

Table 2. Inherent Scenic Attractiveness Classes for Region 5, the Baranof Fiordlands

	Distinctive (A)	Typical (B)	Indistinctive (C)
Landform patterns and features	Unit characterized by highly complex and dissected terrain dominated by angular profiles and sharply defined crests deeply penetrated by fiords and deep glacial troughs and/or flanked by bold rocky headlands, or unit characterized by intricate island-reef complexes. Geologic features are numerous and/or highly significant (prominent cirques and massive glacially scoured rock walls, small glaciers and icefields, craggy peaks, bold promontories, arrays of rocky island reefs, major groupings of wave-cut arches and/or stacks are typical examples). These features tend to dominate or are codominant with other objects in the visual field. Strong edge contrasts and spatial definition. Pronounced spatial variety.	Unit characterized by moderately complex terrain dominated by blocky, frequently angular profiles and well defined crests often penetrated by prominent bays and inlets. Geologic features are moderately significant (secondary peaks, escarpments, promontories and sea-cut formations are typical). These features tend toward codominance with other objects of the visual field. Moderately strong edge contrasts and spatial definition. Moderate spatial variety.	Unit characterized by somewhat diverse hummocky, occasionally blocky terrain, often penetrated by secondary bays and coves. Geologic features are somewhat insignificant (minor peaks and promontories, small singular wave-cut formations are typical examples). These features (if present) are usually subordinate to other objects of the visual field. Moderate to moderately weak edge contrasts and spatial definition. Moderate spatial variety.
Vegetation patterns and composition	Unit characterized by a highly varied vegetative pattern (many major plant cover types are apparent). Many variations of the color and texture. Natural forest openings and/or patches of vegetation are sharply defined tending to dominate or share dominance with other objects of the visual field.	Unit characterized by a highly varied vegetative pattern (many major plant cover types are apparent). Many variations of the color and texture. Natural forest openings and/or patches of vegetation are sharply defined tending to dominate or share dominance with other objects of the visual field.	Unit characterized by a more or less uniform vegetative pattern (only one major plant cover types are apparent). Little (if any) variation in color and texture. Few (or no) natural forest openings and/or patches of vegetation. Vegetative cover edge contrast tends to be minimal in relation to the visual field.
Surface water characteristics	Unit characterized by numerous and/or highly significant water features (diverse shorelines and associated saltwater features, high energy seas, large lakes, clusters of colorful tarns, prominent waterfalls and/or cascades, small glaciers and snow fields are typical examples); features that tend to dominate or are codominant with other objects of the visual field.	Unit characterized by moderately significant water features (somewhat diverse shorelines and associated saltwater features, small distinctive lakes, secondary waterfalls and/or cascades are typical examples); features that tend toward codominance with other objects of the visual field.	Unit characterized by somewhat insignificant water features (shorelines and associated saltwater features of little diversity, minor unfigured lakes, ponds, or bogs, minor streams are typical examples); these features tend to be subordinate to other objects of the visual field.

Source: USFS, 2005

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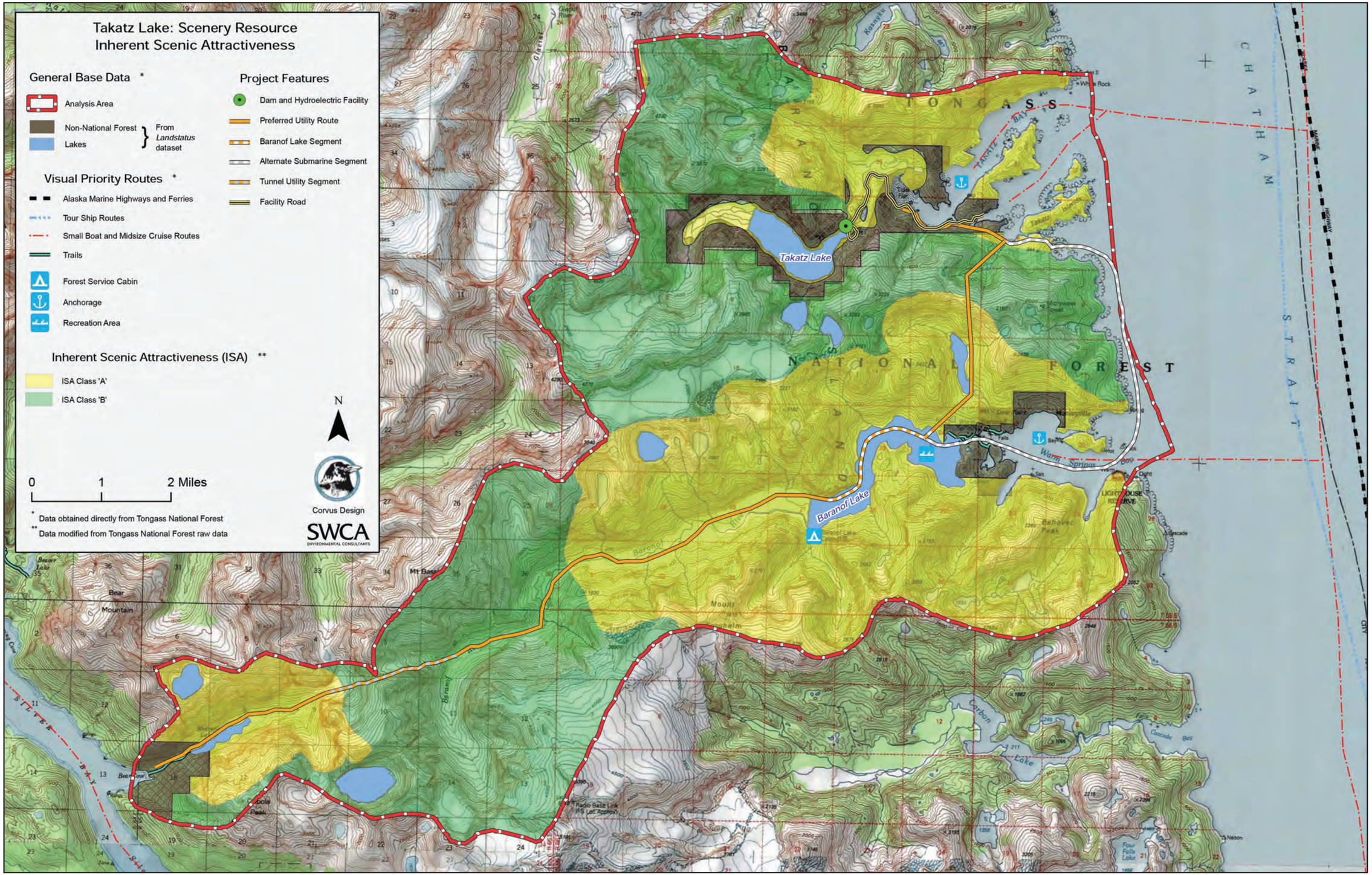

Figure 2. Inherent Scenic Attractiveness classifications for Takatz Lake Hydroelectric Project

Visual Priority Travel Routes and Use Areas

An observer of the TNF uses travel routes and use areas to gain physical and visual access to the TNF. These travel ways and use areas are identified as Visual Priority Routes (VPRs) and are inventoried and catalogued by the USFS. VPRs for the TNF can be water or land based and include water boating routes, roads, anchorages, recreation areas, communities, trails, and other listed areas used by the public. VPRs are identified in Appendix F of the Forest Plan. VPRs determine typical observer positions and locations where the public views the landscape and identify what areas of the landscape can or cannot be observed by users. Land- and water-based travel ways tend to be linear in nature and allow for movement through large areas of the landscape typically at speed, while use areas are concentrated locations with high viewing use due to the stationary or near stationary viewing. Travel routes for water based activities (Alaska Marine Highway, cruise ships, and small and mid-size boats) are to be catalogued from middle channel (Ouderkirk, 2012). VPRs are used for performing visibility analysis and calculating the Distance Zones of the landscape scenery. The VPRs for the Project are found in Table 3.

Table 3.

Visual Priority Travel Routes and Use Areas for Takatz Lake Hydroelectric Project

Use Areas		Travel Routes	
Communities	Baranof Warm Springs	Alaska Marine Highway and cruise ship routes	Chatham Strait
Saltwater use areas	Silver Bay	Small boat and mid-size tour boat routes	Chatham Strait, Silver Bay, Takatz Bay, Warm Springs Bay
Dispersed recreation areas	Baranof Lake		
Forest Service cabins	Baranof Lake		
Boat anchorages	Silver Bay, Takatz Bay, Warm Springs Bay	Hiking trails	Warm Springs Bay (#559)

Source: USFS 2008: Appendix F

Key Viewpoints

Viewpoints are established to record and inventory the existing scenic conditions of the landscape at key locations along Visual Priority Routes (VPRs). Each time scenery analysis/inventories are developed for an area, these same viewpoints are to be used and will provide a record of the landscape, its characteristics, and how it has regenerated or been modified over the years. The area around the Takatz Lake Hydroelectric Project does not have any predetermined viewpoints or photo points established from previous scenery analysis in the region (Beard, 2011). As such, new points were established along Priority Travel Routes and from Use Areas listed above. In total, 13 water-based and 35 land-based photo points were established. Water-based points were from middle channel locations of marine routes, at anchorages, saltwater use areas, or where marine routes intersected another route or adjacent to neighboring use areas. Land-based points were created along VPRs that had a typical or unique landscape character or at intersections with another VPR. The latitude and longitude of each photopoint were recorded, and a 360-degree panorama image was created for each photopoint using a 35 mm camera with a 35 mm lens to replicate the human cone of vision. The images that make up the panorama were digitally stitched together to create one image for each photopoint.

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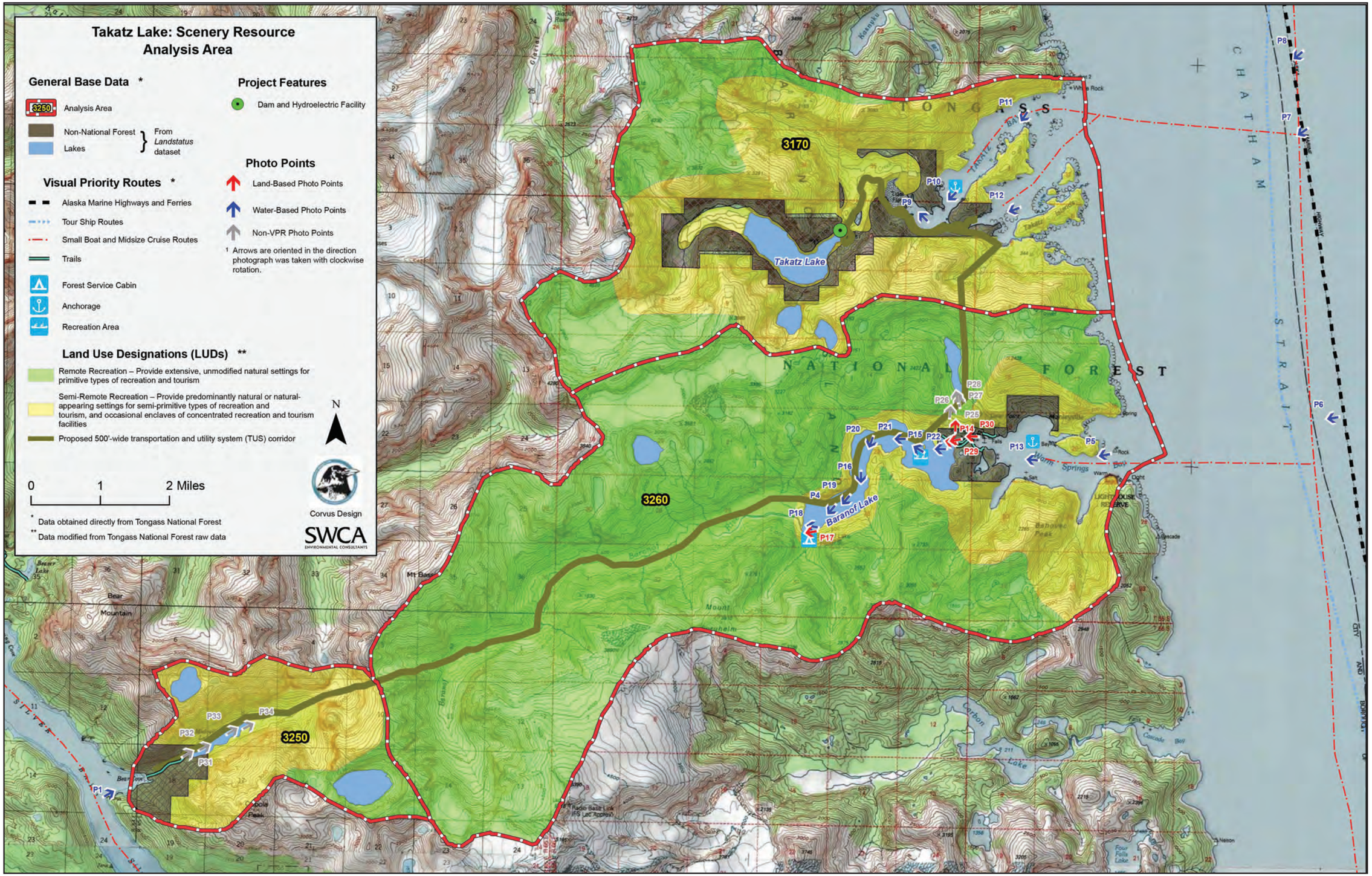

Figure 3. Visual Priority Travel Routes and Use Areas Map with Key Viewpoints for Takatz Lake Hydroelectric Project.

Distance Zones

Visual Priority Travel Routes and Use Areas (VPRs) establish how a user gains physical and visual access to the Forest and establishes landscape visibility. From these VPRs, landscape visibility is subdivided into Distance Zones, based on the distance of the landscape from the viewer. Scenery Management Systems use Distance Zones in the classification, analysis, and inventory of scenery. These Distance Zones consist of foreground, middleground, and background.

- Foreground: visible landscape ½ mile and closer to the observer on a VPR. The limit of this zone is based upon the distance at which details can be perceived. Typically, objects in the foreground can clearly be identified including details and texture. Individual boughs of trees and larger leaves form texture.
- Middleground: ½ mile to 4 miles of visible landscape from the observer on a VPR. Individual elements can still be perceived if unique to surroundings. Texture is typically characterized by the mass of trees rather than individual elements of the trees. Individual trees are usually only discernible in open landscapes. Although the Forest Plan calls for middleground extending to five miles, this Project used four miles due to the complexity of the landforms and topography within the Project area which limits the distance where individual trees are still visible but do not stand out distinctly.
- Background: 4 miles to the horizon of visible landscape from the observer on a VPR. Texture of uniform tree cover is generally very weak or non-existent. Texture is seen as large groups or patterns of trees.

Table 4. Distance Zones: Takatz Lake Hydroelectric Project

Distance Zone Classification	Forest Service Lands Acres (%)
Foreground	2,003 (5%)
Middleground	14,347 (33%)
Background	7,936 (18%)
Unseen	19,466 (44%)

The landscape that is not seen from any VPR is classified as unseen (USFS, 1995). Landscapes that are viewed from more than one VPR may have more than one distance zone and would have the closest distance associated with the landscape. Landscape visibility in the foreground is typically more visually sensitive than those in the middleground or background. Those landscapes that are unseen have no impact on scenery as a resource because no observer would be able to view them from a VPR or use area.

Forty-four percent of the Project area is classified as unseen due to the steep and winding topography of the terrain and the limited priority travel routes and use areas (Table 4; Figure 3). The unseen landscape includes much of the Baranof River drainage and surrounding slopes in Visual Comparison Unit (VCU) 3260, the northern portion of Takatz Lake in VCU 3170 and the upper elevations to the south of Medvejie Lake, VCU 3250.

One third of the landscape is classified as middleground and incorporates the slopes surrounding Baranof Lake, the shoreline facing Chatham Strait between Takatz Bay and Warm Springs Bay, and most of the slopes surrounding Medvejie Lake. Nearly one quarter of the Project area is classified as background and is located to the west of Takatz Lake and the upper peaks surrounding the Baranof River drainage and is only viewable from the Chatham Strait VPR. The foreground is limited to the immediate shoreline and sloped terrain around Baranof Lake, Warm Springs Bay, and Takatz Bay. These foreground areas are visually accessed from the community, the Baranof Lake Dispersed Recreation Area, and the Warm Springs Bay and Takatz Bay anchorages.

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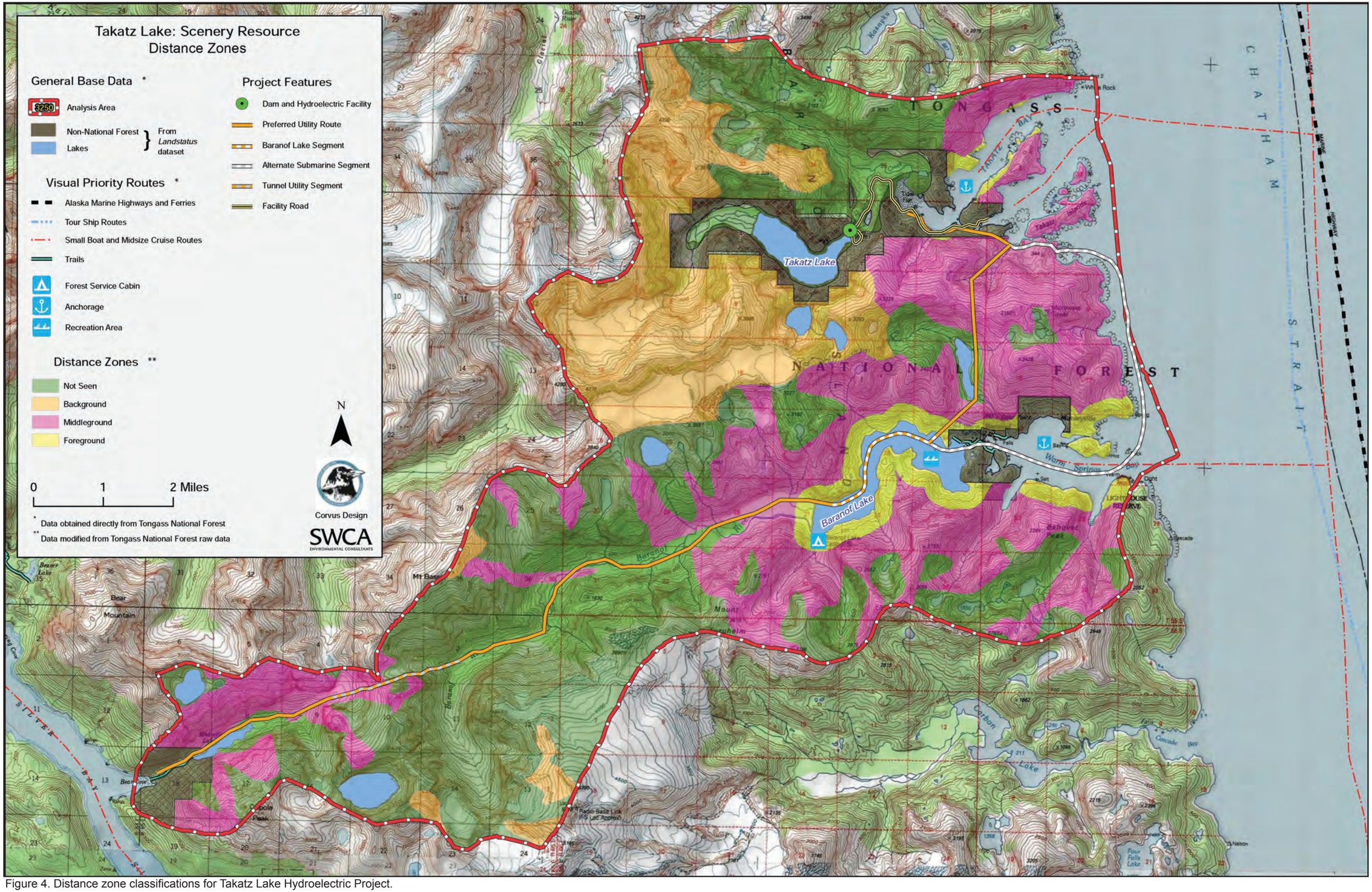

Figure 4. Distance zone classifications for Takatz Lake Hydroelectric Project.

Existing Scenic Integrity

Existing Scenic Integrity (ESI) is a measure of the degree to which the landscape is perceived as whole, complete, or intact without any alterations or modification to the scenery by human activities (USFS, 1995). These could include but are not limited to roadways, communities, timber harvest, quarries or mines, and the development of recreation areas. ESI is an important tool in planning and understanding the regenerative rate of the forest and restoring landscape character back to its intact state. Understanding the ability and time required for the landscape to return back to its complete visual condition becomes an important factor in evaluating potential modifications and the longevity of the visual impacts on the landscape. The Scenic Management System outlines the five classifications of ESI:

- Very High (1). The characteristic landscape is intact or unaltered.
- High (2). The characteristic landscape appears intact. Deviations may be present, but repeat form, line, color, texture, and pattern common to the landscape character and at such a scale that they are not evident.
- Moderate (3). The landscape appears slightly altered. Noticeable deviations are visually subordinate to the character.
- Low (4). The landscape appears moderately altered. Deviations begin to dominate the landscape character.
- Very Low (5). The landscape appears heavily altered. Deviations are dominant to the characteristic landscape.

Less than one percent of the Project area has an ESI other than Very High (1) (Table 5; Figure 5). Overall the Project landscape is perceived as whole and intact with the exception of the community of Baranof Warm Springs, which has an ESI of Moderate (3) and the Baranof Lake Cabin which has an ESI of High (2). The total area of modified landscape represents 0.002% of the overall Project area.

Table 5. Existing Scenic Integrity: Takatz Lake Hydroelectric Project

Existing Scenic Integrity Classification	Forest Service Lands Acres (%)
Very High (1)	43,658 (100%)
High (2)	18 (<1%)
Moderate (3)	76 (<1%)
Low (4)	0 (0%)
Very Low (5)	0 (0%)

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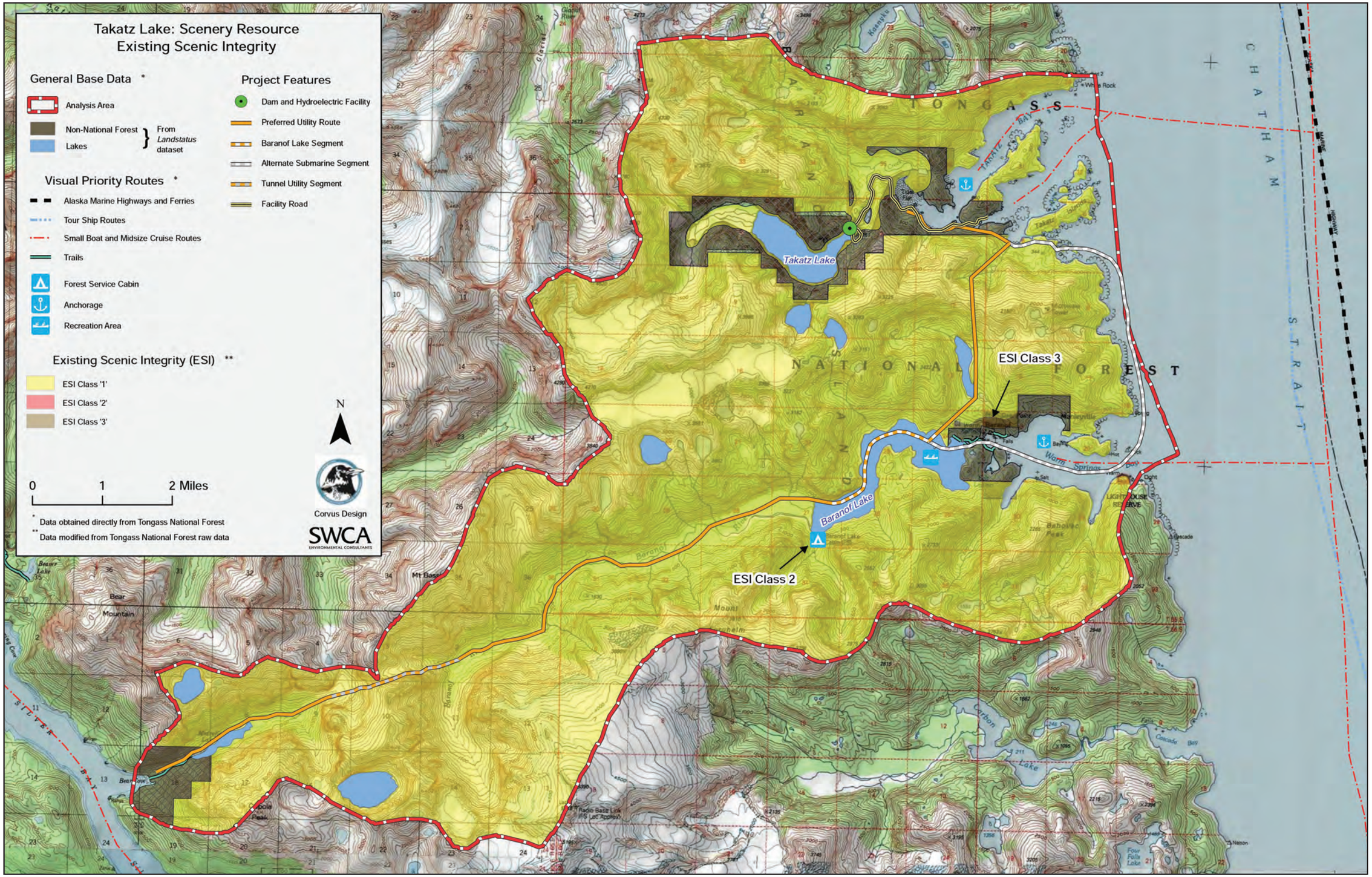

Figure 5. Existing Scenic Integrity classifications for Takatz Lake Hydroelectric

Existing Scenic Integrity and Forest Regeneration

Existing Scenic Integrity (ESI), the degree to which the landscape is perceived as whole, complete, or intact, is an important tool in understanding the regenerative rate of the Forest. By looking at past modifications that have occurred on the landscape at a variety of time periods provides an understanding of the visual regenerative rate of the Forest within the Project and in determining the time necessary to restore the landscape character back to its visually intact state. Understanding the ability and time required for the landscape to return back to its complete visual condition becomes an important factor in evaluating potential modifications and the longevity of the visual impacts on the landscape. Within the Project area all except 0.002% of the landscape has an ESI of Very High (1) where the characteristic landscape is intact or unaltered. With the landscape intact within the Project there is little available data from ESI analysis that would directly indicate the visual regenerative rate of the Forest within the Project area.

In 2012, the USFS established new data that determined the Forestry Site Productivity for the Tongass including within the Project area. Site Productivity is measured using site index that indicates the average height of trees to grow at a particular location over a given period of time. Site Productivity is based on soil types, moisture, slope, elevation, aspect, exposure, and other factors that can influence the growth of trees (Heuer, 2013). From a scenery perspective this becomes a tool to understand the regenerative process of the forest and the amount of time for the landscape to return back to its visually intact state or duration to meet the required Scenery Integrity Objective. The regeneration of timber following clear-cutting is well documented for the Tongass and the patterns of stand development closely relates to visual impacts for forested areas. (USFS, 2008, March 19). Through observation, experience and the regeneration patterns below it would be expected that in 35 to 50 years that the Forest would regenerate to a condition where there no longer would be a discerning visual impact to the casual observer, ESI 2 (High), provided the Forest is undisturbed during that period.

- **Clear-Cut (0-1 year)**: A majority of trees are removed exposing bare soils, residual shrubs, and herbaceous understory. Logging slash is visually obvious. ESI 5 due to significant contrast between clear cut and surrounding undisturbed landscape.
- **Shrub and Herbaceous Plant Dominance (1-9 years):** Residual shrubs and herbaceous plants respond to the increased light. New trees begin to get established but are not visually dominant. Logging slash can still be visible. ESI 5/4 due to coverage of exposed soils and greening by shrubs and herbaceous material.
- **Stand Initiation (10-25 years):** Conifers begin to overtop the shrubs and herbs. Stand species richness is greatest at this stage of development. Logging slash can still be visible. ESI 4 due to significant plant diversity resulting in deviations in color and texture to surrounding landscape.
- **Stem Exclusion (25-75 years):** Trees out compete for light and understory plants decline rapidly and can be completely eliminated in 35 years unless openings are created in the overstory. Color and texture tend to be a close match to surrounding landscape however contrast in form and line is still present due to height differential of adjacent trees resulting in ESI 3 and moving towards ESI 2 over time.
- **Understory Reinitiation (75-120 years):** Larger trees continues to suppress the understory shrubs and herbs for up to 100 years with understory plants not re-appearing until age 120 to 150 when overstory trees begin to die and allow enough light to reach the canopy floor for understory plants to become established again. ESI 2/1.
- **Old-Multi Aged Community (>120-150 years):** Multiple age classes with intermediate and dominate trees. Openings in canopy with established understory plants. ESI 1.

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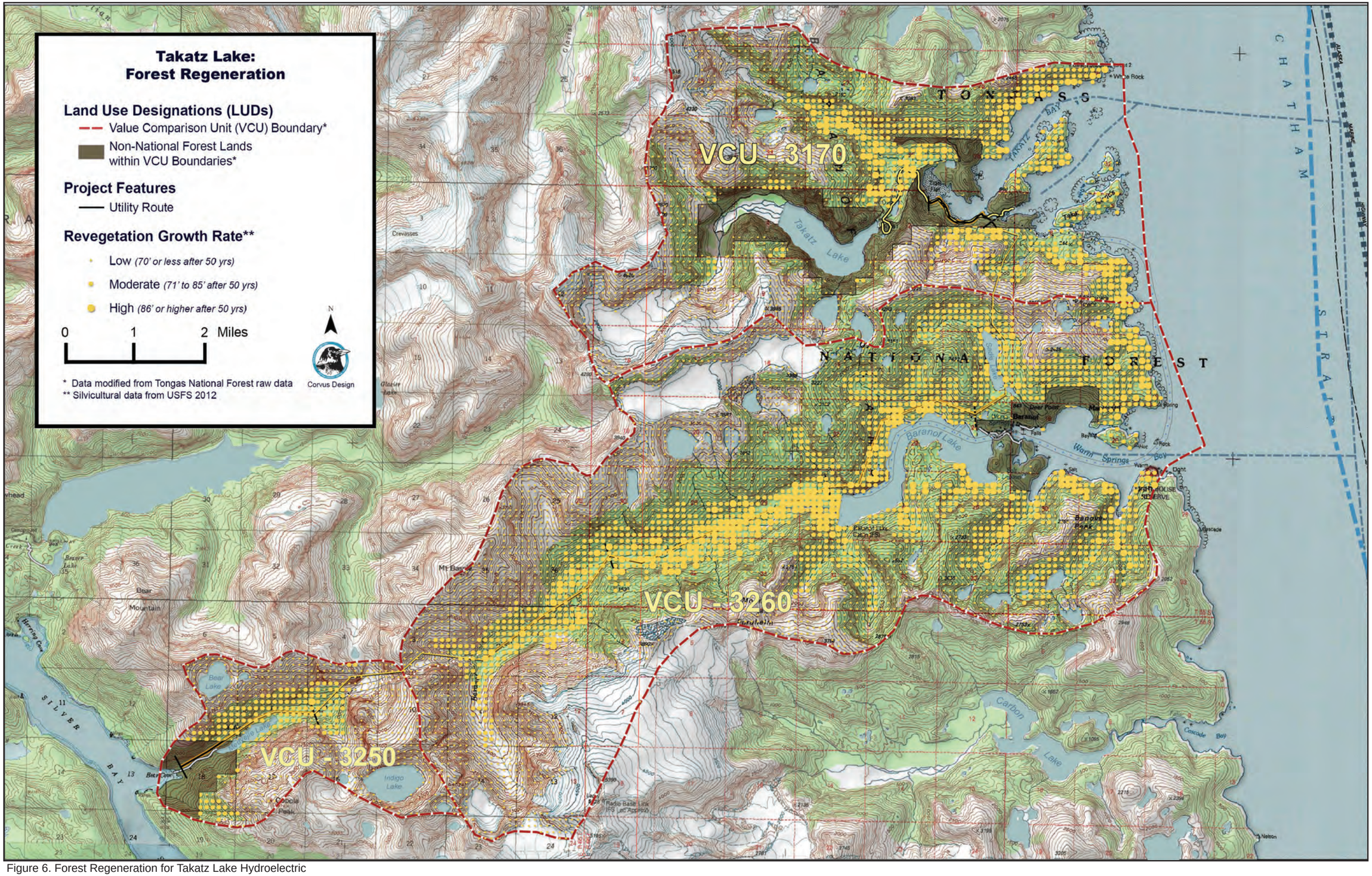

Figure 6. Forest Regeneration for Takatz Lake Hydroelectric

Visual Absorption Capacity

Table 6.

Visual Absorption Capability:

Takatz Lake Hydroelectric Project

Visual Absorption Capability Classification	Forest Service Lands Acres (%)
High	21,485 (50%)
Intermediate	11,681 (28%)
Low	9,513 (22%)

Visual Absorption Capacity (VAC) is the ability of a landscape to absorb human alterations without changing the natural character or scenic condition of the landscape. VAC is an indicator to the ease or difficulty of maintaining the scenic quality of the seen landscape while applying modifications upon the landscape (USFS, 1995). There are three classifications of VAC: low, intermediate, and high.

Low VAC landscapes are generally those with steep slopes, minimal terrain variety, and minimal vegetative diversity. Modifications to low VAC landscapes tend to dominate the landscape character without mitigation measures or design considerations.

High VAC landscapes are those with gentle slopes and/or high terrain, and vegetative diversity. Modifications in a high VAC landscape tend to not be evident to the casual observer even without mitigation or special design considerations. Landscapes that are unseen from Visual Priority Routes (VPRs) are assumed to have a high VAC.

Intermediate VAC landscapes has some variety in terrain and vegetation and intermediate slopes. Depending on the modifications, mitigation and design considerations may or may not be necessary.

VAC is a planning tool that provides direction for understanding management activities and their impacts on scenery due to human alteration. VAC is an indicator of potential costs, mitigation, and efficiency when proposing management activities in the landscape. Those landscapes with a low VAC tend to have higher costs and effort associated with the alteration with higher impacts to the scenic character of the landscape. Modifications in a high VAC area tend to be accomplished easily, at lower costs, and with minimal visual impacts to the scenery.

Visual Comparison Unit (VCU) 3170, Takatz Lake, predominately has an intermediate VAC due to a large portion of the western extents of the VCU having a background distance zone and a variety of terrain and textures (vegetation and geology). Areas within this segment with less steep slopes receive a high VAC. The slopes to the south of Takatz Bay contain a mosaic of intermediate and low VAC. Steeper slopes facing the Takatz Bay anchorages and the Chatham Straight VPR have a low VAC due to steeper terrain and being in the middleground. The slopes to the north of Takatz Bay are predominately low VAC due to their close proximity to the anchorages and steep grades. A large area to the north of Takatz Lake has a high VAC as it is unseen from VRPs.

VCU 3260, Baranof Lake, is a complex mosaic of low and intermediate VAC within the seen landscape in the eastern half of this VCU including Baranof Lake, the lower half of the Baranof River drainage, and surrounding Warm Springs Bay. All foreground Distance Zones surrounding Baranof Lake and Warm Springs Bay have a low VAC due to proximity and steep slopes. Within the middleground is a combination of low and intermediate VAC with steeper slopes facing VPRs receiving a low VAC. The immediate Baranof River drainage (valley floor) has a high VAC due to the gentle slopes and ability for the existing vegetation to screen modifications within the

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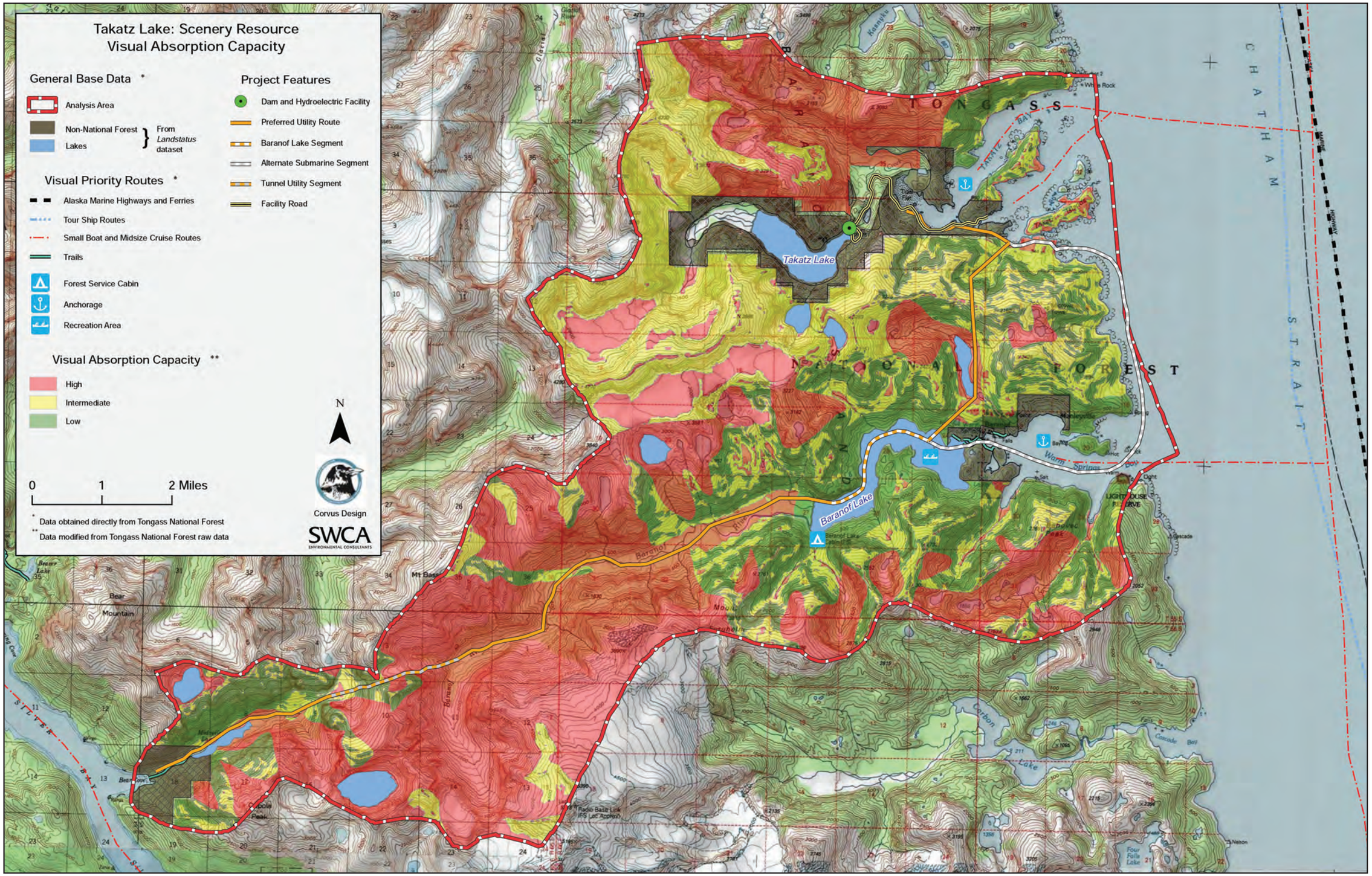

Figure 7. Visual Absorption Capability classifications for Takatz Lake Hydroelectric

landscape. Unseen areas in the eastern portion of this VCU received a high VAC. A majority of the western half of VCU 3260 is unseen and therefore receives a high VAC. Pockets of seen landscape are located on high altitude east facing slopes and are classified as an intermediate VAC with the steeper middleground slopes being classified as low.

VCU 3250, Medvejie Lake, is dominated by a low VAC within the seen landscape surrounding the lake due to being within the middleground distance zone, very steep blocky slopes with few dissecting features. Smaller pockets of intermediate VAC is found at higher elevations surrounding the lake when the slopes are less severe. All areas in this VCU that are unseen have a high VAC.

Other Inventory Information

This section identifies non-scenery attributes that are not specifically required as part of the analysis and inventory as set forth by Scenery Management. These attributes tend to be social attributes of the ecosystem and landscape that if identified as an important priority for the community and users is included in this section. If appropriate, these social attributes may be carried forward and developed with the interdisciplinary development of desired conditions, goals and alternatives for the Project, although outside of the Scenery Management System. These attributes may include auditory, olfactory, physical contacts, recreation setting, emotional, political, spiritual, economic and other values or considerations that are identified by the public.

Other Visual Priority Travel Routes and Use Areas

There are several informal recreation facilities (trails and use areas) that are within the Tongass National Forest and Project area that are not catalogued as Visual Priority Travel Routes or Use Areas. These recreation facilities are identified in the Takatz Lake Hydroelectric Recreation Resource Study Report (Anderson & Agnew:Beck, 2012) and include the following:

- Medvejie Lake Basin (dispersed recreation area used for hiking, paddling, camping, and hunting)
- Baranof Cross Island Trail (sixteen mile informal trail from Medvejie Lake to Baranof Lake)
- Sadie Lake Trail (one mile informal trail from Baranof Lake Trail to Sadie Lake)

These are informal recreation facilities/areas that are not Visual Priority Routes (VPRs) identified in Appendix F of the Forest Plan and are not facilities maintained by the USFS. These recreation facilities have limited use, typically by locals. Although not listed as VPRs, these travel routes and use areas are used in a limited capacity to gain physical and visual access to the TNF. These informal recreation facilities were not used in the preparation of this report.

Recreation Facility Analysis

In 2005, the USFS released the Recreation Facility Analysis, 5 Year Action Plan that makes recommendations for recreation management including the closure of some USFS facilities including cabins. The Baranof Lake Cabin, which is listed as a VPR for this Project is recommended for closure. As of March 2013 the document is in the public comment period. The cabin is included as a VPR for this report.