

Scenery

Goal: Provide Forest visitors with visually appealing scenery with emphasis on areas seen along the Alaska Marine Highway, popular small boat routes and use areas, State highways, major Forest roads, major recreation facilities and from popular recreation places. Recognize that in other areas where landscapes are altered by management activities, the activity may visually dominate the characteristic landscape.

Objectives: Manage the scenery of the Forest in order to achieve the following visual quality objectives:

- Retention – 4.8 million acres plus acres of Retention in Wilderness;
- Partial Retention – 3.2 million acres;
- Modification – 0.4 million acres; and
- Maximum Modification – 2.8 million acres.

Background: Each land use designation (LUD) in the 1997 Tongass Land and Resource Management Plan (Forest Plan) has a corresponding visual quality objective (VQO) that defines maximum levels of visual impact desirable from human-induced alterations to the natural landscape character. Associated with each objective is a set of recommended Scenery Standards and Guidelines that include unit size ranges and type of harvest treatment¹ for different visual absorption capability² settings in timber harvest areas. The Forest Plan modeling process includes a set of guidelines that define roughly how much of a viewshed (or logical part of a viewshed segment) can be in a “disturbed” condition and still meet the visual quality objective. This monitoring effort is intended to assess whether the Scenery Standards and Guidelines, as applied, actually result in meeting established visual objectives.

Definitions

Harvest treatment – clearcut, clearcut with reserves, group selection, single-tree selection, and diameter-limit partial cut.

Visual Absorption Capability (VAC) – is the ability of a landscape to absorb human-caused alterations without significantly changing the natural appearance. There are three classifications Low, Intermediate, and High. Low VAC landscapes are generally those with steep slopes, minimal terrain, and vegetative diversity with less of a capability to alteration. High VAC landscapes are those with gentle slopes, and/or high terrain and vegetative diversity and more adaptive to alteration.

Distance Zone - The area of the landscape characterized by a specified distance from the observer, Foreground (1/4-1/2 mile), Middleground (1/2-5 miles), and Background (greater than

¹ Harvest treatment – clearcut, group selection, single-tree selection, and diameter-limit partial cut.

² Visual Absorption Capability (VAC) is the ability of a landscape to absorb human-caused alterations without changing the natural character of the landscape. There are three classifications, Low, Intermediate, and High. Low VAC landscapes are generally those with steep slopes, minimal terrain, and vegetative diversity. High VAC landscapes are those with gentle slopes, and/or high terrain and vegetative diversity.

3-5 miles). Not seen landscapes are those not observable from a specific location or travel route due to screening from topography or vegetation.

Visual Quality Objective - The degree of acceptable alteration to the landscape from a natural condition.

Percent Allowable Visual Disturbance - is a measurement to express the cumulative visual impact that has occurred from past, present, and reasonable foreseeable management activities such as timber harvest and road construction. Landscapes based upon their land use designation have varying degrees of acceptable alteration from a natural condition. The point of maximum alteration is referred to as the desired future condition, achieved at the end of the timber harvest rotation.

Scenery Resource Question 1: Are the Standards and Guidelines effective in attaining the adopted Visual Quality Objectives established in the Plan?

The Forest Plan monitoring and evaluation criteria for determining the effectiveness of the Scenery standards and guidelines are used to determine whether the standards and guidelines are met. The standards and guidelines are associated with the harvest unit size, type of silvicultural system used, amount of dispersal between units, and the overall percentage of viewshed disturbed. The standards and guidelines are generally adequate to meet the different visual quality objectives in different types of landscapes.

The Forest Plan directs that a representative set of viewsheds across the Forest that have been harvested during implementation of Forest Plan standards and guidelines are selected for evaluation and monitoring. The viewsheds selected should be associated with the use areas or travel routes on the Visual Priority Travel Route and Use Areas list identified in the Forest Plan. The viewsheds should include areas representing the different characteristic landscapes and different Visual Absorption Capability settings. Monitoring should also include assessing the effectiveness of alternatives to clearcutting management. Monitoring and evaluation reporting should occur three to five years following adoption of the Forest Plan and at approximately five-year intervals thereafter.

Monitoring Results

The Forest Plan monitoring and evaluation criteria for determining the effectiveness of the Scenery standards and guidelines are used to determine whether the standards and guidelines are met. The standards and guidelines are associated with the harvest unit size, type of silvicultural system used, amount of dispersal between units, and the overall percentage of viewshed disturbed. The standards and guidelines are generally adequate to meet the different visual quality objectives in different types of landscapes.

The Forest Plan directs that a representative set of viewsheds across the Forest that have been harvested during implementation of Forest Plan standards and guidelines are selected for evaluation and monitoring. The viewsheds selected should be associated with the use areas or travel routes on the Visual Priority Travel Route and Use Areas list identified in the Forest Plan. The viewsheds should include areas representing the different characteristic landscapes and different Visual Absorption Capability (VAC) settings. Monitoring should also include

assessing the effectiveness of alternatives to clearcutting management. Monitoring and evaluation reporting should occur three to five years following adoption of the Forest Plan and at approximately five-year intervals thereafter.

Introduction

To answer the forest plan monitoring question two different viewsheds were studied on the Tongass in 2007. These viewsheds were harvested as part of two timber sales that were planned under the guidelines of the 1997 Tongass Land Management Plan. Wrangell Narrows Viewshed, lies between the town of Petersburg and Woewodski Island. The second area is the Duncan Canal Viewshed, which lies approximately 20 miles from Petersburg bordering the western shoreline. The Finger Point Sale and the Lindenberg sale are two programmed timber sales resulting from the South Lindenberg Timber Sale(s) Environmental Impact Statement, completed in December 1996.

South Lindenberg Scenic Environment

The Lindenberg Peninsula located in the southeast corner of Kupreanof Island is seen from a variety of locations and by a wide range of viewers. The vast majority of viewing occurs from outside the study area. Included are saltwater travel routes that surround the peninsula, adjacent islands of Mitkof and Woewodski, and the western peninsula of Kupreanof Island. Views into the study area from these off-site locations are generally confined to the upper portions of the outwardly-facing slopes and ridges of the peninsula, and to the immediate shoreline. Tall coniferous forest along the peninsula shoreline screens much of the flatlands and lower slopes. Locations from which the study area can be seen are categorized into three different viewsheds: Wrangell Narrows, South Peninsula, and Duncan Canal. Small boats are common in all of the viewsheds. Tour ships and state ferries pass through the Wrangell Narrows and passengers can see in detail the project area. The large portion of the Lindenberg Peninsula beyond the shoreline ridges is not visible from saltwater viewing locations.

Wrangell Narrows Viewshed

The Wrangell Narrows viewshed is defined as the land area and saltwater that can be seen from Wrangell Narrows between the town of Petersburg and Woewodski Island (approximately 12 linear miles). This includes the west edge of Mitkof Island, from Petersburg south to Blind Slough, the northwest portion of Mitkof Island west of Blind Slough, and the east side of the southern Lindenberg Peninsula (VCU 447) which includes Skogs and Colorado creek drainages.

The Wrangell Narrows viewshed is the most densely populated and highly visited of the three viewsheds. It includes the town of Petersburg, Scow Bay, and the boat accessible shoreline community of Kupreanof, and other dispersed shoreline home sites. Petersburg is a regional commercial and industrial center that supports commercial fishing, tourism, and adventure travel. It is serviced by a private and commercial airport and is a port-of-call for small tour ships and Alaska ferries traveling the Inside Passage.

In 1989, more than a half million people visited southeast Alaska's Inside Passage. The majority of these visitors (343,100) traveled on Alaska ferries, the remainder (193,983), on commercial cruise ships. The scenery of the Tongass National Forest is advertised and promoted by the Division of Tourism, cruise ship operators, and the Alaska Tourism Council as a major attraction of the Inside Passage (USDA Forest Service, 1991b).

The two major transportation routes in this viewshed are Mitkof Highway and the Wrangell Narrows boat channel. Mitkof Highway is the only paved road in the three viewshed area. It runs along the western edge of Mitkof Island and is used by residents traveling to and from Petersburg as well as recreationists accessing developed recreation sites such as Ohmer Creek Campground, Papke's Landing boat launch ramp, and Blind Slough Picnic Area. Wrangell Narrows is a major boat channel that is part of the Inside Passage. The channel is used by medium-sized commercial boats, commercial and private cruise ships, Alaska ferries, commercial fishing boats, recreation—and subsistence-related boat traffic and as a transportation corridor for local residents. Developed recreation sites within the Wrangell Narrows viewshed include Papke's Landing Boat Launch and Ravens Roost Cabin on Mitkof Island.

People view the Wrangell Narrows viewshed most often from land and water locations, but occasionally from the air as well. Types of viewers include local residents, tourists, recreationists, commercial fishers, and subsistence users. Most experience foreground and middleground views of the study area.

Duncan Canal Viewshed

The Duncan Canal viewshed is defined as the land area and saltwater that can be seen from Duncan Canal, extending from Towers and McDonald arms at the north end of the canal, south to Beecher Pass. It includes the eastern edge of Kupreanof Island and the west side of the South Lindenberg area (VCUs 437 and 439), including Duncan and Mitchell Creek drainages. Duncan Canal is much more remote than the Wrangell Narrows, and is approximately 20 miles by water from Petersburg. The remoteness of the canal makes it a popular recreation destination for local residents and adventure travelers. It is also used for commercial fishing and subsistence hunting and fishing. Three Forest Service recreation cabins in the canal are available for public use (Castle Flats, Castle River and Breiland Slough).

Boat travel is the primary means of accessing the Duncan Canal viewshed. The only roads in the viewshed are Forest Service Road 6350 and associated spur roads. These roads are open to public use, but, vehicles must be barged to the island. FS Road 6350 begins at the Tonka LTF and extends west through the Mitchell Creek drainage, then north to the Duncan creek drainage.

Duncan Canal receives the fewest number of viewers of the two viewsheds. Types of viewers include commercial fishers, local and visiting recreationists, and subsistence users. Most people view the area from the saltwater. Charter aircraft occasionally transport anglers through the northern portion of the viewshed (Duncan Creek) to access remote lakes and rivers in the area. Views of the study area are typically 3 to 5 miles away (middleground and background distance zones).

Anticipated Environmental Impacts

The following are excerpts from the South Lindenberg Timber Sale EIS, Chapter 4, Environmental Impacts. The Selected Alternative for the South Lindenberg Timber Sale(s) EIS Record of Decision was Alternative 5 to which this monitoring evaluation was conducted.

Wrangell Narrows Viewshed (VCU 447)

Viewpoint 4: Papke's Landing NW and SW:

The view from Papke's landing would appear to be noticeably altered under Alternative 2, but not under Alternatives 3, 4, and 5. Under Alternatives 3, 4, and 5 the introduction of new units

into the landscape would appear as naturally caused disturbances and would not be noticed by the casual observer. A VQO of Partial Retention would be achieved from this viewpoint for these alternatives.

Alternative 5 would result in a combination of small to moderate-size clear cuts and patch cuts. To the north towards the Tonka LTF, one could see several patch cuts associated with Units 104 and 111 and the clearcut of Unit 65. Along the ridge that faces Papke's Landing, one could see the four small patch cuts associated with Unit 118, which rounds the edge of the ridge to the north; the 24 patch cuts associated with Units 122, 124, and 147 across the face of the ridge; and two small clearcuts associated with Units 125 and 127 at the base of the ridge.

Viewpoint 5: Blind Point: There would be no change to this view under Alternatives 1 and 4. The landscape would retain its current untouched appearance. Harvest activities proposed under Alternatives 2, 3 and 5 would not be noticed by the casual observer.

Alternative 5 would have a slightly greater visual effect on the view from this location than Alternative 3 because of the presence of two small clear cuts (Units 125 and 127) in addition to group selection units (122, 124, and 147). The landscape changes would be noticed but would not attract attention. A VQO of Partial Retention for all potentially visible units would be achieved.

Duncan Canal Viewshed (VCUs 437 and 439)

Viewpoint 6: Indian Point: The view of the Duncan Creek viewshed would be affected similarly under all the action alternatives. Changes to the landscape would be easily noticed, may attract attention, and could dominate the characteristic landscape. Except for Unit 16, the units that could be seen from Duncan Canal would be located on the north side of the valley walls and would not face directly toward the canal, which would reduce the visual impact of the units. All of the alternatives would achieve the VQO of Modification. Like Alternative 2, under Alternatives 3, 4, and 5, Units 6 and 16 would be seen in the middleground and Unit 2 in the background. In addition, under Alternatives 3, 4, and 5 Units 24 and 31 would be seen in the distant background near the head of the Duncan Creek drainage. In addition, under Alternatives 4 and 5, Unit 20 would be seen in the background, located between Units 16 and 24. No harvest units in VCU 439 are visible from Duncan Canal or the Indian Point viewpoint.

Activity Monitored and Landscape Analysis Process

The units of the Finger Point and Lindenberg Timber Sales represent approximately 76% of the 1,727 total acres authorized to be removed under the South Lindenberg Environmental Impact Statement. Future monitoring of these viewsheds will evaluate the effects of any additional harvest yet to be completed.

All of the Finger Point harvest being monitored is located within the middleground distance zone and in the Scenic Viewshed LUD, except for Unit 65, which lies within a Timber Production LUD. The unit design for this sale was either by group selection with opening of 2 acres or less, or by clearcut with reserves. Tree removal was accomplished by helicopter or conventional yarding. The group-selection-opening-distribution is uniform in pattern. Some residual, non-merchantable trees were left standing in the units. The viewshed was evaluated from established GPS viewpoints to determine if the design of these units met the Forest Plan Adopted Visual

Quality Objective of Partial Retention, and to determine if the set of standards and guidelines associated with the Partial Retention Visual Quality Objectives are adequate for these objectives.

All of the Lindenberg harvest being monitored is located within the middleground and background distance zones and in the Timber Production LUD. The unit design for this sale was clearcut with reserves. Tree removal was accomplished by helicopter or conventional yarding. Some residual, non-merchantable trees were left standing in the units. The viewshed was evaluated from established GPS viewpoints to determine if the design of these units met the Forest Plan Adopted Visual Quality Objectives of Modification and Maximum Modification, and to determine if the set of standards and guidelines associated with those Visual Quality Objectives are adequate for these objectives.

These recent units and the older harvest were also evaluated for their cumulative effects and for whether the percent of the entire viewshed harvested is consistent with what the Percent Allowable Visual Disturbance FORPLAN model, in Appendix B of the Forest Plan EIS, assumes for the applicable VQO/Distance Zone/Visual Absorption Capability landscapes.

Viewshed Monitoring Results - Finger Point Sale (VCU 447)

The most evident harvest in the viewsheds is the older clearcut units removed during the mid to late 80s', analyzed under the 1979 Tongass Land Management Plan, as amended. These units were designed to meet the Partial Retention to Modification VQO. Unit size, boundary shaping, and screening were the primary techniques used to achieve the desired condition.

The most recent harvest of the Finger Point Timber Sale included 10 units (65, 104, 11, 118, 122, 124, 125, 127, and 147) distributed around the hillsides across the Wrangell Narrows from Papke's Landing. All the units are located in the middleground distance zone, thereby mitigating much of the visual impacts. The acres of the harvest units are within Forest Plan Standards and Guidelines expected to meet the Partial Retention VQO. The direct effect of all these units meets the Partial Retention Visual Quality Objective, since the activity is not easily noticeable to the casual forest visitor.

No harvest units in VCU 437 are visible from the Blind Point viewpoint.

The current overall percentage of visual disturbance representing past and present timber harvest is 3%, considerably less than the allowable 15% for the Partial Retention VQO within an intermediate VAC setting.

Viewshed Monitoring Results Lindenberg Sale (VCUs 437 and 439)

The most evident harvests in the viewsheds are the older clearcut units removed during the mid to late 80s', analyzed under the 1979 Tongass Land Management Plan, as amended. These units were designed to meet the Modification to Maximum Modification VQOs. Unit size, boundary shaping, and screening were the primary techniques used to achieve the desired condition.

The most recent harvest of the Lindenberg Timber Sale included six units (2, 6, 16, 20, 24, and 31) distributed around the Duncan Creek drainage and hillsides. All the units are located in the middleground and background distance zones, thereby mitigating much of the visual impacts. The size of the units with reserve trees fall within the parameters of the Forest Plan Standards and Guidelines. The direct effect of all these units meets the Modification and Maximum Modification Visual Quality Objectives.

No harvest units in VCU 439 are visible from Duncan Canal or the Indian Point viewpoint.

The current overall percentage of visual disturbance is 13% for VCU 437 and 9% for VCU 439, considerably less than allowable 50% for the Modification and Maximum Modification VQOs within an intermediate VAC setting.

Individual Viewpoint Monitoring

Viewpoint: Papke's Landing NW

Sale Name: Finger Point, Tonka/Lindenberg (Unit #111)

Viewshed: Wrangell Narrows

Viewpoint Number: #4

VP Coordinates: N56° 40.665', W132° 56.076'

Description of VP: This viewpoint is a popular mooring and launching facility located approximately 10 miles south of Petersburg on the Wrangell Narrows. This viewpoint is located directly on the boat launch ramp. The view is to the west and encompasses the central southeast portion of the study area. From this location, one can see portions of the unnamed drainage that encompasses the Tonka LTF to the north, the east-facing ridge directly across from Papke's Landing to the west, and the Colorado Creek drainage to the south.

Unit #	LUD	VCU	Unit Acres	Year Harvested	Prescription	VAC	DZ	Predicted VQO	Achieved VQO
122	SV	447	6	2006	Group Selection	I	Mg	PR	R
118	SV	447	4	2006	Group Selection	I	Mg	PR	PR
65	TM	437	53	2007	CC w/ Reserves	H	Mg	M	PR
108	SV	447	11	2006	Group Selection	I	Mg	PR	PR
111	SV	447	37	1998/ 2007	GS/CC w/ Reserves	I	Mg	PR	PR/M
104	SV	447	11	2006	Group Selection	I	Mg	PR	R

Viewpoint: Papke's Landing SW

Sale Name: Finger Point

Viewshed: Wrangell Narrows

Viewpoint Number: 4

VP Coordinates: N56° 40.627', W132° 56.075'

Description of VP: This viewpoint is a popular mooring and launching facility located approximately 10 miles south of Petersburg on the Wrangell Narrows. This viewpoint is located on the boardwalk to the boat dock float. The view is to the west and encompasses the central southeast portion of the study area. From this location, one can see portions of the unnamed drainage that encompasses the Tonka LTF to the north, the east-facing ridge directly across from Papke's Landing to the west, and the Colorado Creek drainage to the south.

Unit #	LUD	VCU	Unit Acres	Year Harvested	Prescription	VAC	DZ	Predicted VQO	Achieved VQO
122	SV	447	6	2006	Group Selection	I	Mg	PR	R/PR
124	SV	447	12	2006	Group Selection	I	Mg	PR	R/PR
125	SV	447	10	2006	CC w/ Reserves	I	Mg	PR	R/PR
127	SV	447	13	2006	CC w/ Reserves	I	Mg	PR	R/PR
147	SV	447	17	2006	Group Selection	I	Mg	PR	R/PR

Activity Monitored and Landscape Analysis Process

The activity that was monitored on September 18, 2007, from the Papke's Landing NW and Papke's Landing SW Viewpoints in the Wrangell Narrows Viewshed was the sale of nine units that were part of the Finger Point Timber Sale and one unit (Unit #111) that was harvested under the Tonka/Lindenberg Timber Sale. Seven units were assigned group selection silvicultural prescription and three units were assigned a clear cut with reserves silvicultural prescription.

It was anticipated that harvest seen from the Papke's Landing Viewpoints would not be noticed by the casual observer, but would rather appear as naturally caused disturbances, and would be consistent with the Partial Retention VQO as seen from the middleground viewing distance. The purpose of this monitoring was to determine if these types of management prescription on moderate to steep forested slopes would meet the Partial Retention objective consistent with the Tongass Forest Plan scenery standards and guidelines. The results of this monitoring can be built into future revisions of the Forest Plan.

Monitoring Results of Papke's Landing NW and SW Viewpoints

The Wrangell Narrows Viewshed was monitored during early to mid afternoon on September 18, when the weather was sunny and very clear. From the Papke's Landing, viewpoints there were minor noticeable changes in forested texture in the treatment area, some visible areas of harvested ground and noticeable edges introduced into the landscape. From these viewpoints, the recent and past harvest activity meets Partial Retention to Modification Visual Quality Objectives, consistent with the predicted results.

Viewpoint Papke's NW

122

118

65

108

111

104



Viewpoint Papke's SW

127

147

125

124

122



Viewpoint: Blind Point

Sale Name: Finger Point
Viewshed: Wrangell Narrows
Viewpoint Number: #5
VP Coordinates: N56° 38' 27.852", W132° 54' 33.948"

Description of VP: Blind Point is located on Mitkof Island just north of the mouth of Blind Slough, which leads to the Blind River. The slough is a popular fishing location, and Blind Point is representative of the views boat travelers have of the southeast side of the study area. Views of the study area from Blind Point are to the northwest and encompass the Colorado Creek drainage.

Unit #	LUD	VCU	Unit Acres	Year Harvested	Prescription	VAC	DZ	Predicted VQO	Achieved VQO
125	SV	447	10	2006	CC w/ Reserves	I	Mg	PR	R/PR
127	SV	447	13	2006	CC w/ Reserves	I	Mg	PR	R/PR
128	SV	447	22	2006	CC w/ Reserves	I	Mg	PR	R/PR

Activity Monitored and Landscape Analysis Process

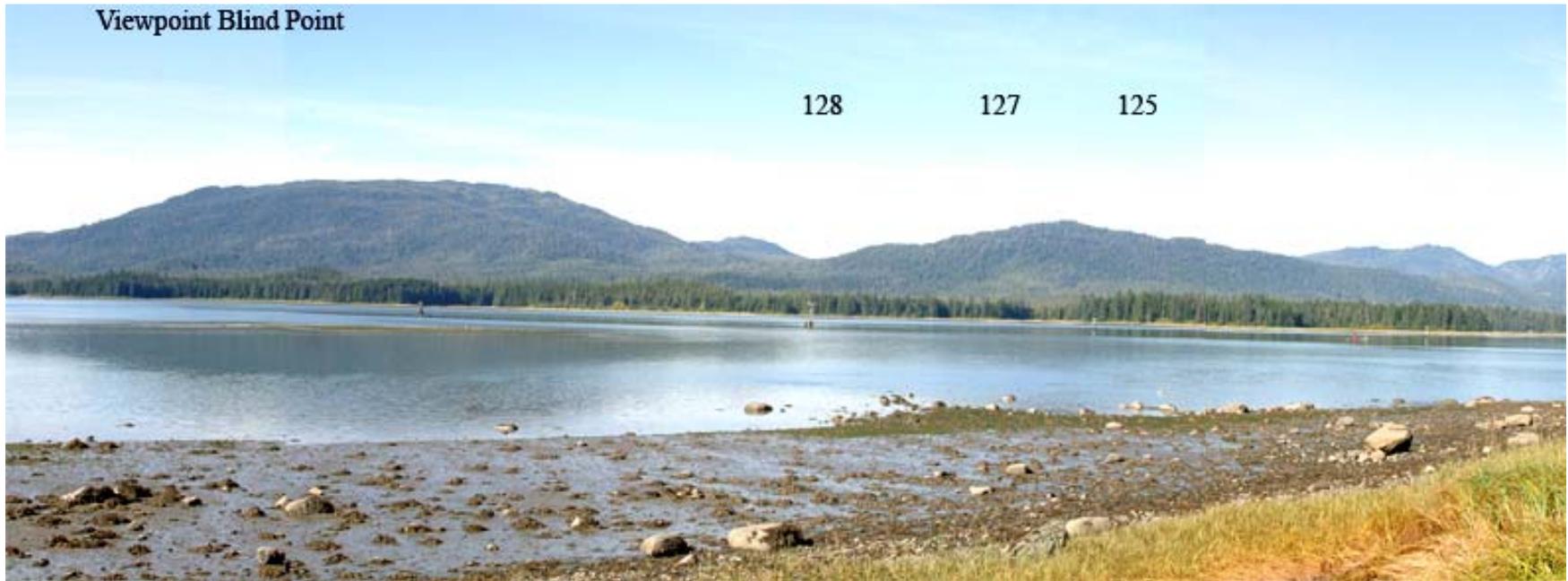
The activity that was monitored on September 18, 2007, from the Blind Point Viewpoint in the Wrangell Narrows Viewshed was the sale of three units that were part of the Finger Point Timber Sale. These units were all assigned a clear cut with reserves silvicultural prescription.

It was anticipated that harvest seen from the Blind Point Viewpoint would be noticed, but would not attract attention, and would be consistent with the Partial Retention VQO as seen from the middleground viewing distance. The purpose of this monitoring was to determine if this type of management prescription on moderate to steep forested slopes would meet the Partial Retention objective consistent with the Tongass Forest Plan scenery standards and guidelines. The results of this monitoring can be built into future revisions of the Forest Plan.

Monitoring Results of Blind Point Viewpoint

The Wrangell Narrows Viewshed was monitored during early to mid afternoon on September 18 when the weather was sunny and very clear. From the Blind Point viewpoint, there were minor noticeable changes in forested texture in the treatment area, some visible areas of harvested ground and noticeable edges introduced into the landscape. From this viewpoint, the recent and past harvest activity achieved retention to partial retention visual quality objective, slightly better than the predicted results.

Viewpoint Blind Point



128

127

125

Viewpoint: Indian Point

Sale Name: Lindenberg
Viewshed: Duncan Canal
Viewpoint Name: Indian Point
Viewpoint Number: 6
VP Coordinates: N56° 45.045', W133° 14.985'

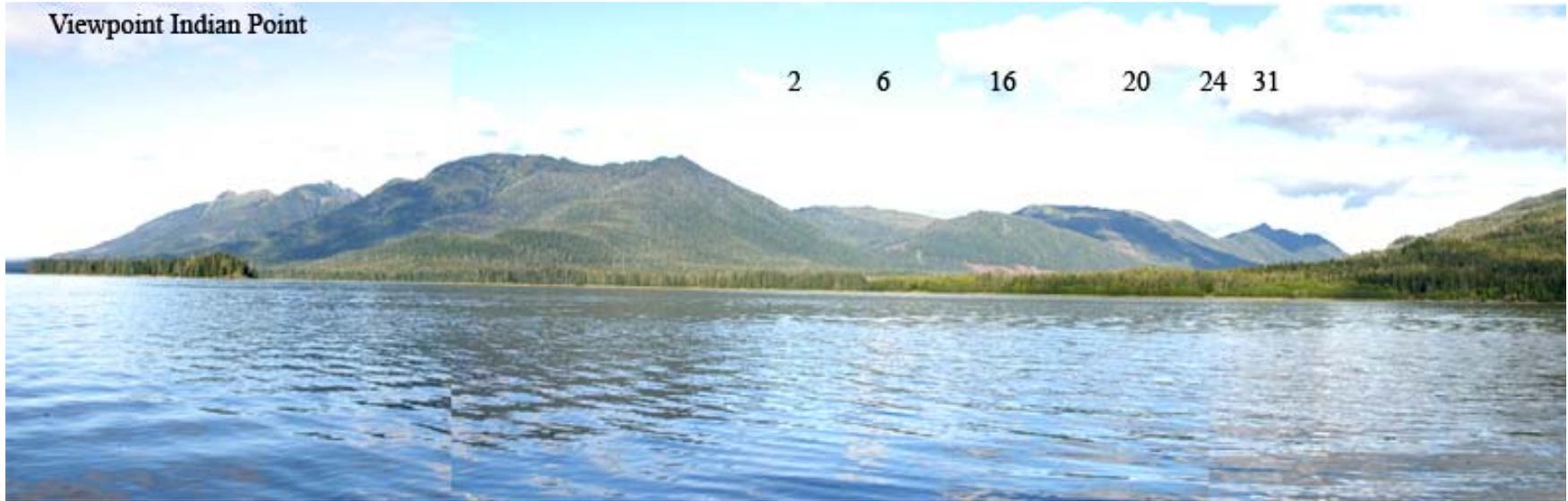
Description of VP: The Indian Point viewpoint is located to the west of the study area, across Duncan Canal on the shoreline of Kupreanof Island. The view from Indian Point is to the east and encompasses the northwest portion of the study area. In the center of the viewshed is the Duncan Creek drainage.

Unit #	LUD	VCU	Unit Acres	Year Harvested	Prescription	VAC	DZ	Predicted VQO	Achieved VQO
2	TM	439	50	Not Cut	CC w/ Reserves	I	Bg	M	Harvest Not Completed
6	TM	439	71	Felled	CC w/ Reserves	I	Mg	M	Harvest Not Completed
16	TM	439	49	Yarded	CC w/ Reserves	H	Mg	M	Harvest Not Completed
20	TM	439	48	Yarded	CC w/ Reserves	I	Bg	MM	Harvest Not Completed
24	TM	439	57	Not Cut	CC w/ Reserves	I/ H	Bg	M	Harvest Not Completed
31	TM	439	44	Yarded	CC w/ Reserves	I	Bg	M	Harvest Not Completed

Activity Monitored and Landscape Analysis Process

The activity that was monitored on September 18, 2007, from the Indian Point Viewpoint in the Duncan Canal Viewshed was the sale of six units that were part of the Lindenberg Timber Sale. Two of the six units had not been harvested at the time of the monitoring activity. The units that were harvested were all assigned a clear cut with reserves silvicultural prescription.

It was anticipated that this type of harvest would be easily noticed, may attract some attention, and could easily dominate the characteristic landscape as seen from Duncan Canal, but would be consistent with the Modification and Maximum Modification VQOs as seen from the middleground and background viewing distances of the Indian Point Viewpoint. The purpose of this monitoring was to determine if this type of management prescription on moderate to steep forested slopes would meet the Modification and Maximum Modification objectives consistent with the Tongass Forest Plan scenery standards and guidelines. The results of this monitoring can be built into future revisions of the Forest Plan.



Monitoring Results of Indian Point Viewpoint

The Duncan Canal Viewshed was monitored during mid to late afternoon on September 18 when the weather was sunny and very clear. From the Indian Point viewpoint, there were noticeable changes in forested texture in the treatment area, visible areas of harvested ground and noticeable edges introduced into the landscape. From this viewpoint, it is expected that the completed harvest activity will achieve a modification to maximum modification visual quality objective, consistent with the predicted results.

Evaluation of Results Finger Point Timber Sale

For the Wrangell Narrows viewshed included in the Finger Point Timber Sale planning area, the Forest Plan adopts a VQO of Partial Retention in the middleground seen area. The standards and guidelines for Partial Retention in an Intermediate VAC landscape call for clearcut openings between 15 and 40 acres. The timber harvest that was monitored includes five clearcut with reserve tree openings. These units range from 10 to 22 acres. This treatment clearly meets the Partial Retention VQO. The sale area also includes one unit within the Timber Production LUD adopting the Modification VQO in the middleground distance zone. The standards and guidelines for Modification in a High VAC landscape calls for clearcut openings between 60 and 100 acres. This unit is 53 acres and is less visible from the Papke's Landing than expected, meeting the Partial Retention VQO from the viewpoint.

The Forest Plan also provides very general guidelines on the use of harvest methods other than clearcutting. Due to limited experience on the forest with these types of treatments, specific direction was not available. However, the following guidelines taken from the Forest Plan are considered a starting point from which we can gain a better understanding in meeting the intent of the Forest Plan scenery management program:

“Meeting a Retention or Partial Retention VQO in a Low VAC setting requires a relatively small percentage of stems removed on a single-tree basis – anywhere from 5 to 20%. The exact amount cannot be stated since a lot depends on the slopes, viewing distances, and natural characteristics of the stand. To meet a Modification VQO, it is possible that a larger percentage could be removed. Exactly how much and what the limit would be is also based on the existing landscape characteristics. When utilizing a group selection method, the appropriate size and distribution for the groups are heavily dependent on the VQO, and particularly the natural landscape characteristics such as the size and distribution of natural openings. From observations of the few examples available in Alaska of this type of treatment, the design of the groups should replicate natural openings and avoid the use of geometric shapes. The initial uses of these harvest techniques will have to be experimental in nature, employ a variety of harvest intensities and designs, and be followed by careful monitoring.”

Previous monitoring of the Todahl Timber Sale has shown that group-selection-harvest-methods with removal of 15% to 25% of the stands can meet the Partial Retention VQO on Intermediate VAC landscapes. This silvicultural treatment appears successful, is consistent with the very general single tree and group selection guidelines of the Forest Plan, and provides a basis for future design techniques. However, landscapes are highly variable and can display a wide spectrum of VAC related characteristics (e.g. slope, diversity and aspect,

and others). More monitoring of this type of treatment across a wider area of the Tongass is necessary to gain experience sufficient to incorporate these percentages as Forest Plan Standards & Guidelines.

For this sale, the harvest treatment was through a group selection method with removal of 5% to 10% of the stands. Meeting the Partial Retention VQO on the Intermediate VAC landscape appears successful.

As noted earlier the total harvest acreage of both old harvest and harvest from the Finger Point Sale represents about 3 percent of the viewshed. The FORPLAN model assumes an allowable visual disturbance of 15 percent for a Partial Retention VQO in an Intermediate VAC landscape. It is estimated that the future timber harvest proposed in this sale area will not significantly alter the current condition of the viewshed and a Partial Retention VQO will still be met. This is assuming that additional units will be at least close to the existing unit size and that they will be located away from the current Finger Point Sale units rather than adjacent to any of them.

Evaluation of Results Lindenberg Timber Sale

For the Duncan Canal viewshed included in the Lindenberg Timber Sale planning area, the Forest Plan adopts a VQO of Modification and Maximum Modification in the middleground and background distance zones of the seen area. The standards and guidelines for Modification in an Intermediate and High VAC landscape call for clearcut openings between 40 and 100 acres. The timber harvest that was monitored includes four clearcut with reserve tree openings that fall within the Modification VQO and Intermediate VAC and one that falls within a High VAC landscape. These units range from 44 to 71 acres. This treatment meets the Modification VQO, especially with the reserve-tree-harvest technique. The sale area also includes one unit within the Maximum Modification VQO in the background distance zone. The standards and guidelines for the Maximum Modification in an Intermediate VAC landscape calls for clearcut openings between 80 and 150 acres. This unit is 48 acres and meets the Maximum Modification VQO.

Action Plan

Monitoring and evaluation criteria for determining the effectiveness of the Scenery Standards and Guidelines shall continue to determine whether the harvest unit size, type of silvicultural system used, amount of dispersal between units, and the overall percentage of viewshed disturbed are generally adequate to meet the different visual quality objectives in different types of landscapes. Monitoring will concentrate on viewsheds seen from the Visual Priority Travel Routes and Use Areas, as identified in Appendix F of the Forest Plan. Especially important will be monitoring of uneven aged silvicultural treatments in order to develop new standards and guidelines relative to the alternatives to clearcutting type of management in meeting Adopted Visual Quality Objectives.

Part of the FORPLAN modeling process, as described in Appendix B of the Forest Plan FEIS, includes a set of guidelines that define roughly the Percent Allowable Disturbance, or how much of a viewshed (or logical part of a viewshed segment) can be in a “disturbed” condition and still meet the Adopted Visual Quality Objectives. Continued monitoring efforts are

intended to assess whether these guidelines, as applied, actually result in meeting Adopted Visual Quality Objectives.