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Alaska Region

Chugach
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CHUGACH NATIONAL FOREST



FY2008 Forest Plan Monitoring and Evaluation Report

EXECUTIVE SUMMARY

The Forest Plan and subsequent documents established 43 general monitoring questions for the Chugach National Forest. Included are three questions added after the Plan was published. One had been left out inadvertently and two were added as a result of appeal decisions. In fiscal year 2008 (FY2008), 8 of the questions were monitored (Forest Plan implementation consistency, ecosystem change, moose habitat, heritage resource maintenance and protection, heritage resource condition and status, pattern and abundance of fuel types, RNA maintenance, and OHV use on soils). Results of these monitoring activities are displayed in this report. The remaining questions in the monitoring strategy were not monitored for reasons including: (1) monitoring question being reviewed, (2) monitoring protocol had not been completed or approved by the Forest leadership team, (3) monitoring schedules that did not require monitoring to take place in FY08, or (4) budgetary constraints.

CERTIFICATION

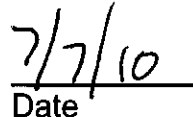
I have reviewed the FY2008 Forest Plan Monitoring and Evaluation Report for the Chugach National Forest. Under laws and regulations in effect at the time the Forest Plan was revised (May 31, 2002) a forest plan is generally revised every 10 to 15 years, or whenever the Forest Supervisor determines that conditions or demands have changed. This is the sixth year implementing the Revised Land and Resource Management Plan. Based on the monitoring results in this document, I am satisfied that the revised Forest Plan is sufficient to guide management of the Forest and that there is no need to change the plan at this time.

This report is approved.



MARIA LISOWSKI

Acting Forest Supervisor


Date

INTRODUCTION

This is the annual monitoring and evaluation report for fiscal year 2008 (FY2008) for the Chugach National Forest Revised Land and Resource Management Plan (Forest Plan). The Forest Plan provides guidance for all resource management activities on the Chugach National Forest. It does this in part by establishing Forest-wide goals, objectives, and management direction. The monitoring and evaluation process is used to ensure that Forest Plan direction is being implemented, is effective, and is not causing effects that were not predicted in the Forest Plan's Final Environmental Impact Statement (FEIS). The evaluation process is also used to assess progress in achieving the desired conditions, goals, and objectives, and to verify that assumptions made in the Forest Plan and FEIS are valid.

The Forest's monitoring and evaluation strategy is located in Chapter 5 of the Forest Plan. The strategy outlines the basic elements of the monitoring program, establishes a Monitoring and Evaluation Interdisciplinary Team (MEIT), and defines 40 key monitoring questions. Three questions were added after the Forest Plan was published, resulting in 43 items to be monitored. The three additional questions included one left out inadvertently (monitoring of mountain goat, a management indicator species), and two added as a result of appeal decisions (air quality and summer off-highway vehicle use). All Forest Plan monitoring is directed toward answering these 43 general monitoring questions.

The MEIT developed protocols with specific monitoring details for many of the general questions. Some protocols that were previously completed are currently being revised. Until this effort is complete, monitoring efforts may be minimal or non-existent for many items. Protocols are documented in the Monitoring Guide and their revision occurs outside of the forest planning process in order to be responsive to the best available science. A copy of the most current Monitoring Guide can be obtained from the Supervisor's Office.

The Record of Decision (ROD) for the Forest Plan acknowledged a need for obtaining information about the effects of winter snow machine use on ungulates and bears. The Forest regards this as a study to address specific informational needs, not as Forest Plan monitoring; therefore, no information is presented in this document on this subject.

MONITORING ITEMS

All Forest Plan monitoring questions are presented below with a summary of results for FY2008, including items for which no monitoring occurred. Reasons questions were not monitored in FY2008 include: (1) monitoring question being reviewed, (2) monitoring protocol had not been completed or approved by the Forest leadership team, (3) monitoring schedules that did not require monitoring to take place in FY08, or (4) budgetary constraints.

The general monitoring questions are grouped by monitoring purpose or applicable resource category (e.g., soil resources), and are in the same order as presented in Chapter 5, the Monitoring and Evaluation Strategy of the Forest Plan. The three items

that were added after the Plan was published are at the end in a category called “Additional Questions”.

For each general monitoring question, the frequency (i.e., schedule) of data collection and evaluation are displayed as presented in Chapter 5 of the Forest Plan. In some cases, the collection and evaluation frequencies are different than what is documented in the Monitoring and Evaluation Strategy. These differences are the result of the establishment and approval of peer reviewed monitoring protocols. Where protocols have been approved that have changed the frequency of data collection in the Forest Plan, the revised frequencies are displayed below. The schedules represent expectations under maximum funding levels.

Monitoring results are summarized only for items monitored in FY2008 and include (1) recommendations for remedial action, and (2) actions taken in FY2008 to respond to previous recommendations. The monitoring strategy specifically calls for these items to be included in the annual reports.

Compliance with Revised Forest Plan

Are projects being implemented consistent with the Forest Plan direction?

- Frequency of Collection: Annually
- Frequency of Evaluation: Every 5th year
- Status in FY2008: Monitored. Evaluation to be completed in FY2010.

Integrated Effectiveness/Validation Monitoring

Are management activities achieving their intended outcomes?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2008: Not monitored or evaluated. Approved protocol expected in FY2010.

To what extent is ecosystem composition and structure changing and has forest management influenced these changes? How do these changes compare to the expected range?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2008: Monitored and evaluated. The protocol was reviewed during FY2008 and approved by the FLT in May of 2009.

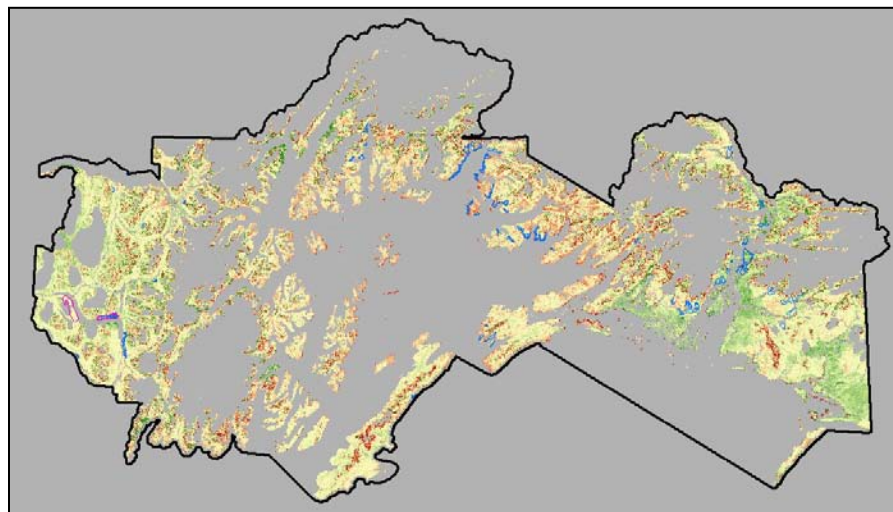
Trends in ecosystem composition and structural attributes (as indexed by FIA vegetation data and vegetation indices applied to satellite imagery) are summarized across the Forest, by geographic area, and by management area prescription to identify if and where changes of sufficient magnitude to be of concern to management.

As specified in the draft protocol in the Monitoring Guide for the Chugach National Forest, two methodologies were proposed for use: 1) FIA grid inventory data for Forest-wide and by geographic area interpretations and 2) multi-temporal satellite imagery for Forest-wide, geographic area, and management area interpretations. Only the second methodology was implemented because FIA data from multiple time steps on the Forest were not yet available.

For the multi-temporal satellite image work, the Remote Sensing Application Center (RSAC) conducted the analysis (including refining the protocol). MODIS satellite image pairs covering the Forest were acquired, georeferenced, preprocessed, and cloud-free composites were developed covering the Forest. The images were from 2002 and 2007 and phenological differences between the two time periods were minimized since the images are both from the same time of year (late summer). Change metrics calculated between the two image dates for Normalized Difference Vegetation Index (NDVI), Normalized Difference Moisture Index (NDMI), and Normalized Difference Forest Index (NDFI).

The protocol was revised during FY2008 with the assistance of Regional Office collaborators and was further refined based on the work completed by RSAC. The revised protocol was approved by the FLT in May of 2009.

*NDVI difference in land cover (Time Step 2 – Time Step 1) where **Red** indicates a decrease in NDVI, **Green** indicates an increase in NDVI, and **Yellow** indicates no change in NDVI. Alaska*



*forest damage polygons from 2002-2007 (**Blue**) and Alaska fire history polygons from 2002-2007 (**Magenta**) have been overlaid for an example of their geographic distribution within the forest boundary. Areas in **Gray** were removed as they were a combination of Non-Land Cover, Water, Developed, Clouds, and maximum snow cover for the two single date images.*

Evaluation:

Recommendation of Remedial Action: None

Actions taken in response to previous reports: None

Other recommendations: None

Water Resources

What is the existing water quantity?

It has been proposed that this monitoring question be dropped from the monitoring strategy because it reflects a research question rather than a monitoring need. The Forest does not expect to develop a protocol for this question.

Are Best Management Practices (including wetland management) effective in meeting water quality standards?

- Frequency of Collection: Annual
- Frequency of Evaluation: Annual
- Status in FY2008: Not monitored or evaluated. Protocol approved by the FLT in November of 2007.

Sensitive and Exotic Plant Species

What is the abundance and distribution of sensitive plants in areas affected by management activities?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2008: Not monitored or evaluated. This protocol evaluates the likelihood that Forest management activities are contributing to a downward trend in sensitive plant populations. Protocol was approved by the FLT in April 2009.

What is the distribution and abundance of exotic plants, particularly in areas affected by management activities?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2008: Not monitored or evaluated. This protocol estimates the contribution of human-caused disturbance associated with Forest management on the distribution and abundance of invasive plants on the Forest. It also determines if projects are being implemented consistent with invasive plant standards and guidelines specified in the Forest Plan and in project specific mitigation measures. Protocol was approved by the FLT in April 2009.

Management Indicator Species

What are the population trends for Management Indicator Species (MIS) and their relationship to habitat? Are MIS truly reflective of all fish and wildlife species on the Forest?

- Status in FY2008: Upon the evaluation of the Monitoring and Evaluation IDT, a recommendation has been made to drop this question from the monitoring strategy because: (1) the first component of the question is redundant with the general monitoring questions for specific MIS, and

(2) the second component of the question is more appropriately addressed as a research item than as a monitoring question.

Has the Revised Forest Plan direction prevented adverse interactions between bears and humans?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2008: Not monitored or evaluated. Protocol approved by the FLT January 2008.

What are the population trends for brown bear and the relationship to habitat?

- Frequency of Collection: Every 3rd year
- Frequency of Evaluation: Every 5th year
- Status in FY2008: Not monitored or evaluated. Protocol being developed.

What are the population trends for dusky Canada geese and the relationship to habitat?

- Frequency of Collection: Every third year by Forest Service, annual by other agencies
- Frequency of Evaluation: Every 3 years
- Status in FY2008: Not monitored or evaluated. Protocol was approved by the FLT in April 2010.

What are the population trends for moose and the relationship to habitat?

- Frequency of Collection: Annual
- Frequency of Evaluation: Annual
- Status in FY2008: Not monitored or evaluated. Protocol being developed.

What are the population trends for black oystercatchers and the relationship to habitat *change*? (This question was modified in 2006 from “What are the population trends for black oystercatchers and the relationship to habitat?”)

- Frequency of Collection: 3 years of each 5 year period
- Frequency of Evaluation: Every 5th year
- Status in FY2008: Not monitored. Protocol being developed.

What are the population trends for Dolly Varden char and the relationship to habitat?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2008: Not monitored or evaluated. Upon the evaluation of the Forest’s fisheries biologist, Regional WFEW Director, Acting CNF Planning Staff Officer and the CCNF Resources Staff Officer, a recommendation has been made to drop this question from the monitoring strategy because of the extreme difficulty in being able to detect any meaningful level of change as a result of the Forest’s management practices. A more appropriate question will be developed to replace this one.

What are the population trends for Coho salmon and the relationship to habitat?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2008: Not monitored or evaluated. Upon the evaluation of the Forest's fisheries biologist, Regional WFEW Director, Acting CNF Planning Staff Officer and the CCNF Resources Staff Officer, a recommendation has been made to drop this question from the monitoring strategy because of the extreme difficulty in being able to detect any meaningful level of change as a result of the Forest's management practices. A more appropriate question will be developed to replace this one.

Species of Special Interest

Is Forest management maintaining favorable conditions for sustaining gray wolves?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2008: Not monitored or evaluated. All species of special interest monitoring questions ranked low in priority during the Monitoring and Evaluation IDT ranking process. Consequently no protocols are being developed at this time for these questions. Should the inventory and monitoring budgets remain stable or decline, the Forest will propose dropping these questions.

Is Forest management maintaining favorable conditions for sustaining Kenai wolverines?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2008: Not monitored or evaluated. All species of special interest monitoring questions ranked low in priority during the Monitoring and Evaluation IDT ranking process. With the exception of this species, no protocols are being developed at this time for these questions. Protocol was approved by the FLT in March of 2010.

Is Forest management maintaining favorable conditions for sustaining Townsend warblers?

- Frequency of Collection: Every 5th year
- Frequency of Evaluation: Every 5th year
- Status in FY2008: Not monitored or evaluated. All species of special interest monitoring questions ranked low in priority during the Monitoring and Evaluation IDT ranking process. Consequently no protocols are being developed at this time for these questions. Should the inventory and

monitoring budgets remain stable or decline, the Forest will propose dropping these questions.

Is Forest management maintaining favorable conditions for sustaining northern goshawks?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2008: Not monitored or evaluated. All species of special interest monitoring questions ranked low in priority during the Monitoring and Evaluation IDT ranking process. Consequently no protocols are being developed at this time for these questions. Should the inventory and monitoring budgets remain stable or decline, the Forest will propose dropping these questions.

Is Forest management maintaining favorable conditions for sustaining Sitka black-tailed deer?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2008: Not monitored or evaluated. All species of special interest monitoring questions ranked low in priority during the Monitoring and Evaluation IDT ranking process. Consequently no protocols are being developed at this time for these questions. Should the inventory and monitoring budgets remain stable or decline, the Forest will propose dropping these questions.

Is Forest management maintaining favorable conditions for sustaining the Montague Island marmot?

- Frequency of Collection: 1 time
- Frequency of Evaluation: Every 5th year (if marmot are found to be present, adjustments will be made to the schedule)
- Status in FY2008: Not monitored or evaluated. All species of special interest monitoring questions ranked low in priority during the Monitoring and Evaluation IDT ranking process. Consequently no protocols are being developed at this time for these questions. Should the inventory and monitoring budgets remain stable or decline, the Forest will propose dropping these questions.

Is Forest management maintaining favorable conditions for sustaining cutthroat trout?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2008: Not monitored or evaluated. All species of special interest monitoring questions ranked low in priority during the Monitoring and Evaluation IDT ranking process. Consequently no protocols are being developed at this time for these questions. Should the inventory and

monitoring budgets remain stable or decline, the Forest will propose dropping these questions.

Threatened, Endangered and Sensitive Animal Species

What are the population trends for trumpeter swans and the relationship to habitat change? (The question was revised in FY2008 from “What are the status and trends of trumpeter swans?”)

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2008: Not monitored or evaluated. During FY2008 it was expected that the Trumpeter Swan would be removed from the Region’s Sensitive Species list and was in fact dropped from the Region’s Sensitive Species list in February 2009. There are no management issues associated with this species and its population is not of concern. As a consequence, no monitoring protocol is currently being developed and a recommendation will be made to drop this question from the Forest’s monitoring strategy.

Forest Products

Are forestlands restocked?

- Frequency of Collection: Annual sample of selected areas
- Frequency of Evaluation: Annual
- Status in FY2008: Not monitored or evaluated. Protocol approved by the FLT in 2007.

Have conditions changed that would affect the suitability of timber production lands?

- Frequency of Collection: Every 10 years
- Frequency of Evaluation: Every 10 years
- Status in FY2008: Not monitored or evaluated. Protocol approved by the FLT in 2007.

Minerals

Are mining plans of operations consistent with Revised Forest Plan direction?

Note: In FY2008, this item was determined to be an inventory to be completed in 2008 and be dropped from the monitoring plan.

- Frequency of Collection: One time
- Frequency of Evaluation: At year 5
- Status in FY2008: Not monitored or evaluated. This item was determined to be an inventory and a recommendation was made to drop this question from the Forest’s monitoring strategy.

Heritage Resources

Are National Register eligible heritage resources being adequately maintained and protected?

- Frequency of Collection: Annual
- Frequency of Evaluation: Annual
- Status in FY2008: Monitored, not evaluated. Protocol revised in FY2009 and expected to be approved during FY2010.

What is the status and condition of heritage resources on the Forest?

- Frequency of Collection: Annual
- Frequency of Evaluation: Annual
- Status in FY2008: Monitored, not evaluated. Protocol revised in FY2009 and expected to be approved during FY2010.

Recreation Opportunities, Tourism, Access, and Facilities

What are the characteristics of recreational visitors? What is their pattern of recreational use? What are their perceptions of opportunities and settings?

- Frequency of Collection: Once every 5 years
- Frequency of Evaluation: Every 5th year
- Status in FY2008: Not monitored or evaluated. This monitoring question ranked low in priority during the Monitoring and Evaluation IDT ranking process. Additionally, it was determined that the National Visitor Use Monitoring survey with its added location specific questions could adequately address this question. Consequently no protocol is being developed. The Forest has proposed dropping this question. The National Visitor Use Monitoring survey was conducted again on the Forest during the 2008 fiscal year. Survey results are expected soon.

Is the Revised Forest Plan direction for motorized and non-motorized access working?

- Frequency of Collection: Every 5th year
- Frequency of Evaluation: Every 5th year
- Status in FY2008: Not monitored or evaluated. The protocol was approved by the FLT in FY2009.

Are areas of the Forest being managed in accordance with the prescribed Recreation Opportunity Spectrum (ROS) class in Forest-wide standards and guidelines?

- Frequency of Collection: Annual
- Frequency of Evaluation: 5 years
- Status in FY2008: Not monitored or evaluated. This monitoring question ranked low in priority during the Monitoring and Evaluation IDT ranking process. Consequently no protocol is being developed at this time. Should

the inventory and monitoring budgets remain stable or decline, the Forest will propose dropping this question.

What is the use of developed recreational facilities and how does it compare to capacity?

- Frequency of Collection: Every 5th year
- Frequency of Evaluation: Every 5th year
- Status in FY2008: Not monitored or evaluated. The protocol was approved by the FLT in FY2009.

What are the trends in commercial recreation services on the Forest and how does it compare to capacity?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 3rd year
- Status in FY2008: Not monitored or evaluated. The protocol was approved by the FLT in FY2009.

Scenic Quality

Are areas of the Forest being managed in accordance with the Scenery Integrity Objectives (SIO) in Forest-wide Standards and Guidelines?

- Frequency of Collection: Annual sample of selected areas
- Frequency of Evaluation: Every 5th year
- Status in FY2008: Not monitored or evaluated. The protocol was approved by the FLT in March of 2010.

Fire Protection and Fuels Management

What is the pattern of abundance of different fuel types on the Kenai Peninsula?

- Frequency of Collection: Annual or once every 5 years depending on the method used
- Frequency of Evaluation: Every 5th year
- Status in FY2008: Monitored and evaluated.

Evaluates if fire protection and management activities on the Forest are consistent with goals, objectives, and standards and guidelines specified in the Forest Plan. Also, interprets if changes in fire regime condition class, biomass of standing dead trees, and down woody material biomass on the Kenai Peninsula geographic area of the Forest are of sufficient magnitude to be of concern to management.

In FY2008, the fire protection and fuels management protocol of the Monitoring Guide for the Chugach National Forest was in draft form. Four methodologies were included in the draft protocol: 1) Review of Project Records (annual), 2) Database Review (annual), 3) Fire Regime Condition Class (FRCC; every 5

years), and 4) Fuel Characteristics Classification System (FCCS; every 5 years). Revision of the protocol took place during FY2008 and 2009 and the revised version was approved by the FLT in March of 2010.

Evaluation: In FY2008, the database review identified 967 acres of hazardous fuel reduction accomplishments (documented in FACTS) of which 495 acres were in the WUI. The Forest Plan specifies 400 acres of vegetation treatment per year to reduce fuel buildups, so the FY2008 accomplishment exceeds that average annual specification.

In FY2008, in support of FRCC development (<http://www.frcc.gov/>), the Chugach NF Ecology Program provided the LANDFIRE (<http://www.landfire.gov/>) project with vegetation ecology data and reviews of data products. Ultimately, a LANDFIRE FRCC layer will be developed representing the departure of current vegetation conditions from simulated historical reference conditions.

Recommendation of Remedial Action: None

Actions Taken In Response to Recommendations in Previous Reports:
None

Other Recommendations: None.

Wilderness

Is the wilderness character of the Wilderness Study Area (WSA) and areas recommended for Wilderness being maintained?

- Frequency of Collection: Annual sample of selected areas
- Frequency of Evaluation: Every 5th year
- Status in FY2008: Not monitored or evaluated. A Regional protocol is currently being developed for use in evaluating this monitoring question.

Research Natural Areas

Are proposed and established Research Natural Areas (RNA) being maintained in a state unmodified by human activity?

- Frequency of Collection: Annual for Database Review, Every 5 years for Visitor Effects Monitoring
- Frequency of Evaluation: Annual
- Status in FY2008: Monitored and evaluated

As specified in the FLT approved protocol in the Monitoring Guide for the Chugach National Forest, reviews of data in SOPA, FACTS, TIM, and SUDS were conducted to ascertain compliance with Standards and Guidelines and the Research Natural Area (RNA) Management Area Prescription specified in the Forest Plan.

Evaluation: No cases of non-compliance were found for any of the five RNAs on the Forest. In regard to the Wolverine Glacier RNA, it was noted that the U.S. Geological Survey (USGS) has been carrying out research in the area since 1966 and that it may be desirable to formalize an agreement between USGS and the Forest Service to facilitate continuance of that work.

Recommendation of remedial action: None

Actions taken in response to recommendations in previous reports: None

Other recommendations: None

Community Effects

What are the trends in local economies?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 3rd year
- Status in FY2008: Not monitored or evaluated. This question ranked low in priority during the Monitoring and Evaluation IDT ranking process. Consequently no protocol is being developed at this time. Should the inventory and monitoring budgets remain stable or decline, the Forest will propose dropping this question.

What are the effects of National Forest management on lands, resources and communities adjacent to the Forest?

- Frequency of Collection: Once every 5 years
- Frequency of Evaluation: Every 5th year
- Status in FY2008: Not monitored or evaluated. This question ranked low in priority during the Monitoring and Evaluation IDT ranking process. Consequently no protocol is being developed at this time. Should the inventory and monitoring budgets remain stable or decline, the Forest will propose dropping this question.

Additional Questions

What are the population trends for mountain goat and the relationship to habitat *change*? (In FY2008 FLT decided to revise the question to include the word "change".)

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 3rd year
- Status in FY2008: Not monitored or evaluated. Protocol currently being developed.

Are Forest management actions contributing to changes in air quality on the Forest?

Note: This general question was added in response to the Revised Forest Plan appeal decision.

- Frequency of Collection: Annual, in FY2008 revised to every 3-5 years.
- Frequency of Evaluation: Annual, in FY2008 revised to every 3-5 years.
- Status in FY2008: Not monitored or evaluated.

What is the effect of summer OHV use on soils and/or vegetation where OHV use is allowed?

Note: This general question was added in response to the Revised Forest Plan Appeal Decision.

- Frequency of Collection: Not defined
- Frequency of Evaluation: Not defined
- Status in FY2008: Monitored on Cordova Ranger District. Protocol being developed (currently not complete).

In FY2008, the Cordova Ranger District continued to monitor off-highway vehicle (OHV) use on portions of Hawkins and Hinchinbrook islands based on recommendations in the 2006 and 2007 monitoring report (Hodges 2006; Meade 2007). A full report is available from the Chugach NF Supervisor's Office.

In 2008, we conducted on-the-ground surveys of off-highway vehicle (OHV) trails in the Canoe Pass area on Hawkins Island and made aerial observations of trails south of the Boswell Bay area on Hinchinbrook Island. Data, photographs, and other observations were compared with information from surveys in 2006 and 2007 to determine whether disturbed areas and levels of disturbance were increasing or decreasing, healing over time, or expanding to new areas.

Evaluation: In the Canoe Pass area (Hawkins Island), sections of trails that received little or no use had revegetated, and could not be discerned except in the wettest areas where there were water-filled ruts. Overall disturbance is light, but several sites where vehicle use is concentrated in wet areas continue to be significantly disturbed. These areas are mostly on State Marine Park land. One new trail was located and two trails extended substantially farther than previously recorded. Observations of the damage made by one-time use of a few vehicles indicate that overall use is low, but only a few vehicles can still cause lasting damage.

The Eyak Corporation and the State of Alaska (Canoe Passage State Marine Park) are the adjacent landholders in the Canoe Pass area. Representatives were consulted about the OHV trails and possibly working together to address the damage. The land manager for the corporation expressed some concern that trail improvements might encourage additional trespass on corporation land and result in legal liability, since the eastern user-created trail begins on their land.

There is one main trail on National Forest land on Hinchinbrook Island (Snake Creek Trail). Comparisons of aerial photographs taken in 2008 with past information indicate that disturbance levels are getting worse. On-the-ground surveys will be conducted in 2009 to assess damage and identify areas that require restoration.

Recommendations for remedial action for this monitoring item: At this time, further assessment of the Snake Creek Trail, small restoration projects at stream crossings at Canoe Pass, and additional discussions with adjacent land owners and OHV users are the only recommended actions.

Actions taken in response to recommendations in previous reports: As recommended in the 2006 monitoring report, OHV trails on Hinchinbrook and Hawkins Islands are continuing to be monitored.

Other Recommendations:

Snake Creek Trail

On-the-ground surveys need to be completed to assess the new levels of damage and to identify specific project areas. Given the presumed increasing damage, we need to decide how to prevent further degradation, whether through rerouting, education, trail hardening, or access restrictions. Law enforcement investigation may be necessary to determine whether use in this area is strictly for subsistence purposes or if there is summer recreational use.

Canoe Pass Area

The main problem areas are on State land and along the eastern trail that begins on Eyak Corporation land. Given the concerns of the Eyak Corporation about encouraging trespass, restoration work along the eastern trail should be postponed while we continue to discuss the situation. There are no critically urgent restoration needs on Forest land at this time.

We will continue to communicate with the State about the damage on its land. Perhaps some site visits can be arranged in the summer of 2009. Cooperative restoration work could be planned for 2010 if the State and the Eyak Corporation agree. OHV users will also need to be included in the discussions and as participants in restoration work.