



United States
Department of
Agriculture

Forest Service

Pacific
Southwest
Region

Stanislaus
National Forest



March 1999

1998 Monitoring and Evaluation Report



United States
Department of
Agriculture

Forest
Service

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Dear Friends:

I am pleased to announce completion of the Stanislaus National Forest 1998 Monitoring and Evaluation Report. The Report documents the results of monitoring and evaluation activities accomplished during federal fiscal year 1998 (October 1, 1997 to September 30, 1998). It also presents the Interdisciplinary Team's (IDT) conclusions and recommendations based on those results.

The Report identifies several major 1998 accomplishments, related to the recommendations contained in the Stanislaus National Forest 1997 Monitoring and Evaluation Report:

- The Forest completed the Emigrant Wilderness Direction Forest Plan Amendment.
- Additional monitoring and documentation occurred on 6 items previously identified for increased monitoring and/or documentation.
- The Forest Leadership Team conducted two Forest Plan Standards and Guidelines (S&Gs) Reviews.
- The 1999 Program of Work identifies monitoring as an emphasis item.

I support the IDT findings. Full implementation of their recommendations depends on adequate funding. Accordingly, the Forest will:

1. Improve application of management prescriptions for 3 items: Sensitive Plants selected populations; S&Gs for soil productivity; and, Watershed S&Gs.
2. Complete Forest Plan Amendments for the Carson-Iceberg and Mokelumne Wildernesses.
3. Focus monitoring program on resource conditions rather than accomplishments.
4. Increase Monitoring and/or Documentation, to the levels specified in the Forest Plan, for 17 Forest Plan monitoring items.

The 1998 Monitoring and Evaluation Report is available by request. Call, write, or stop by the Forest Supervisor's Office for copies. You may submit requests by e-mail (webmaster/r5_stanislaus@fs.fed.us). You may also view the Report on the Forest's website (<http://www.r5.fs.fed.us/stanislaus/mgmt/mereport>).

Comments received on this report will be considered in preparing future reports. Please submit comments, or any written requests for the documents to:

Stanislaus National Forest
Attn.: Monitoring
19777 Greenley Road
Sonora, CA 95370

Sincerely,



BEN L. DEL VILLAR
Forest Supervisor

Stanislaus National Forest

1998 Monitoring and Evaluation Report

Alpine, Calaveras, Mariposa and Tuolumne Counties, California
March 1999

Lead Agency: U.S. Department of Agriculture
Forest Service
Pacific Southwest Region
Stanislaus National Forest

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Abstract

The 1998 Monitoring and Evaluation Report, prepared by an Interdisciplinary Team (IDT) for the Forest Supervisor, documents the results of monitoring and evaluation activities accomplished on the Stanislaus National Forest from October 1, 1997 to September 30, 1998. The accomplishments shown are based on projects and activities reported and performed to the levels specified in the Forest Plan. The Report presents the IDT's review of the monitoring results, along with their conclusions and recommendations based on those results.

1998 Monitoring and Evaluation Report

1. Introduction

The Regional Forester approved the Stanislaus National Forest Land and Resource Management Plan (Forest Plan) and Environmental Impact Statement (EIS) on October 28, 1991 (USDA 1991). Chapter V of the Forest Plan includes a monitoring program. As stated in the Forest Plan (pg. V-1) the purpose of monitoring is to:

1. Inform the decision maker of progress toward achieving Plan goals and objectives, and applying standards and guidelines.
2. Determine the costs and effects of Plan implementation.
3. Identify when Plan amendments/revisions are needed.

In addition to monitoring, the Forest Plan requires evaluation of results. Evaluation is the analysis and interpretation of monitoring data to determine whether changes in the Forest Plan, or in project implementation are necessary. Monitoring and evaluation are critical elements ensuring that the Forest Plan remains a dynamic and responsible tool for managing the Forest's land and resources in a changing social and economic climate.

This report, prepared by an Interdisciplinary Team (see List of Preparers) for the Forest Supervisor, documents the results of monitoring and evaluation activities accomplished on the Stanislaus National Forest during federal fiscal year 1998 (October 1, 1997 to September 30, 1998). The accomplishments shown in this report are based on projects and activities reported and performed to the levels specified in the Forest Plan. Although more monitoring may occur, the Interdisciplinary Team (IDT) did not show accomplishments for any items without documentation or, conducted at less than Forest Plan levels. The IDT reviewed this information in light of Forest Plan Chapter V requirements. Later, the IDT completed its evaluation in an integrated fashion to develop the recommendations contained in this Report.

2. Monitoring Activities

The Forest Plan (as amended) now includes a total of 99 individual monitoring items in 22 broad categories ranging from Air Quality to Forest Standards and Guidelines (S&Gs). Table 1 (see Appendix) shows monitoring and evaluation accomplishments as reported for fiscal year 1998. It lists the 22 Forest Plan categories (Resource) and a short description of each monitoring objective (Objective). The item number (Key), is used for tracking purposes. Monitoring activities or accomplishments are shown by National Forest System Watershed (USDA 1991). Items shown as not applicable under accomplishments in Table 1 do not occur or apply in that particular watershed.

3. Evaluation of Monitoring

The IDT reviewed the results of monitoring and evaluation activities in an integrated fashion. In order to draw conclusions and make recommendations, the team identified these questions.

- Does the Forest Plan work?
- What monitoring has been done and what does it mean?
- Does monitoring relate to Forest Plan goals?
- Do managers consider monitoring results when making decisions?
- Do we monitor the right things?
- What additional monitoring is needed?
- What have we learned from outside sources?

Table 2 (see Appendix) shows a summary of the results of monitoring accomplished during the reporting period. Similar to Table 1, it lists the Resources and Objectives along with the IDT evaluation of results and their conclusions and recommendations. The sections immediately following present more detailed explanations. Items shown as not applicable under results in Table 2 do not have standards or limits of variability established in the Forest Plan.

3.1 Results

Monitoring activity occurred on 30 of the 99 Forest Plan items and on 5 non-Forest Plan items. The IDT reviewed the information pertaining to all 104 items, comparing conditions to monitoring limits of variability defined and established in Forest Plan Chapter V.

This Section provides a summary of the results obtained from monitoring activities conducted on the Stanislaus during fiscal year 1998. While conducting this portion of the evaluation, the IDT also considered the monitoring results contained in the 1997 Stanislaus National Forest Monitoring and Evaluation Report (USDA 1998a). Results show each item falling into one of the following categories (see Appendix, Table 2 for notes and legend).

- A. Conditions within limits of variability
- B. Conditions not within limits of variability
- C. Not enough information
- D. Not Applicable (no standards)
- E. None Conducted or Reported

A. Conditions Within Limits of Variability

The IDT determined conditions are within limits of variability on 9 items:

- | | |
|---|---|
| 2-1 Cultural Resource cumulative effects | 10-5 Motor vehicle conflicts |
| 4-1 Fire acre control objectives | 16-1 Roads closed to public vehicles |
| 5-23 Lahontan Trout population | 16-3 Road construction |
| 6-1 Forest Pests problems and damage | 18-1 Water quality standards (BMPs) |
| 9-2 Permitted and actual AUMs | |

B. Conditions not Within Limits of Variability

The IDT determined conditions are not within limits of variability on 12 items:

9-3	Allotment management objectives	13-1	S&Gs for soil productivity
9-4	Range administration and compliance	13-6	Soil hydrologic function
9-5	Range improvements	15-6	Reforestation
10-2	Condition of developed sites	15-7	Burn area reforestation
11-1	Riparian maintained/improved	18-2	Watershed S&Gs
12-1	Sensitive Plants selected populations	22-1	Forest S&Gs reviews

The following information provides some details for each item listed above.

- 9-3** Allotment Management Objectives
At times, some allotments were not in full compliance with their allotment management objectives.
- 9-4** Range Administration and Compliance
At times, some allotments were not in total compliance with the terms of their permits.
- 9-5** Range Improvements
At times, some allotment improvements were not in compliance with their allotment plan, annual instructions or permit.
- 10-2** Condition of Developed Sites
Due to budget limitations and a previously identified \$12.5 million rehabilitation backlog, achieving the limit of variability for this activity is not feasible.
- 11-1** Riparian Maintained/Improved
Monitoring indicates most, but less than 90% of Streamside Management Zones (SMZs), are being implemented correctly.
- 12-1** Sensitive Plants Selected Populations
Monitoring of selected populations showed several sensitive plant occurrences not within the limits of variability possibly due to both natural causes and management activities.
- 13-1** S&Gs for Soil Productivity
Soil cover and soil organic matter are not within the limit of variability due to contour tilling on some site preparation projects. Some older plantations (Wrights Creek or Granite Burn), that did not require retention of large woody debris, do not meet the surface organic matter limits of variability.
- 13-6** Soil Hydrologic Function
Monitoring of selected meadow soils showed that infiltration rates were not within the range of natural variability at numerous locations.
- 15-6** Reforestation
15-7 Burn Area Reforestation
Due to catastrophic fires, limited funding and available workforce, reforestation of some areas has not been accomplished within 5 years of harvest.
- 18-2** Watershed S&Gs
Streambank stability, ground cover and vegetative structure monitoring indicate the SMZ S&G is implemented at less than 90%.
- 22-1** Forest S&Gs Reviews
Some conditions resulting from catastrophic natural fires and a landslide do not meet Forest Plan S&Gs.

C. Not Enough Information

Although monitoring occurred at Forest Plan specified levels, the IDT could not determine whether conditions are within, or not within limits of variability on 9 items:

5-1	Wildlife: vegetation diversity	5-19	Mule Deer population
5-2	Wildlife: special habitat	5-26	Meadow Bird habitat capability
5-6	Spotted Owl population and habitat	9-1	Range condition and trend
5-9	Goshawk population	13-4	Soil resource improvements
5-12	Great Gray Owl population		

D. Not Applicable

The IDT could not evaluate conditions because the Forest Plan does not include monitoring standards or limits of variability on 5 items:

4-A	Fuel treatments	5-C	Amphibians
5-A	Bald Eagle nesting	9-A	Noxious Weeds
5-B	Western Pond Turtle		

E. None Conducted or Reported

The IDT could not evaluate conditions because monitoring did not occur; or, monitoring occurred but was not reported on the remaining 69 Forest Plan monitoring items (see Appendix, Table 2, result E).

3.2 Conclusions

This Section provides a summary of the IDT conclusions based on results obtained from monitoring activities conducted on the Stanislaus during fiscal year 1998. While conducting this portion of the evaluation, the IDT also considered the conclusions contained in the 1997 Stanislaus National Forest Monitoring and Evaluation Report (USDA 1998a).

While evaluating the overall Forest Plan monitoring program, the IDT found:

- The Forest completed the Emigrant Wilderness Direction Forest Plan Amendment.
- Additional monitoring and documentation occurred on 6 items previously identified for increased monitoring and/or documentation.
- The 1999 Program of Work identifies monitoring as an emphasis item.
- Managers often consider monitoring information while developing and approving site specific projects.
- The Forest Leadership Team conducted two Forest Plan S&Gs Reviews.
- Forest Plan monitoring program requirements are not fully implemented for several reasons: the program is too ambitious and based on a much larger overall Forest program than exists; lack of funding and staffing; and, other priorities and emergencies.

While evaluating the specific results of each individual monitoring activity, the IDT developed conclusions using the following broad categories:

1. No Action (continue current monitoring)
2. Improve Application of Management Prescriptions
3. Amend Forest Plan Management Prescriptions
4. Amend Forest Plan S&Gs
5. Amend Forest Plan Management Area Allocations
6. Amend Forest Plan Schedule of Outputs
7. Revise Forest Plan
8. Amend Forest Plan Monitoring Items
 - a. Accomplishments
 - b. Duplicate or Not Feasible
9. Amend Forest Plan Chapter V
10. Increase Monitoring and/or Documentation

A listing of the conclusions, by category, follows (see Appendix, Table 2 for notes and legend). Several monitoring items appear in more than one category; therefore, no overall Forest totals or percentages are shown.

1. No Action (continue current monitoring)

Forest Plan management direction and monitoring requirements are up-to-date and, where applicable, conditions are within limits of variability for 7 items:

2-1 Cultural Resource cumulative effects	13-4 Soil resource improvements
5-15 Bald Eagle population	15-6 Reforestation
6-1 Forest Pests problems and damage	22-1 Forest S&Gs reviews
10-5 Motor vehicle conflicts	

2. Improve Application of Management Prescriptions

Conditions are not within limits of variability, however it is likely that conditions can meet limits of variability with improved application of existing management direction, for 3 items:

12-1 Sensitive Plants selected populations	18-2 Watershed S&Gs
13-1 S&Gs for soil productivity	

3. Amend Forest Plan Management Prescriptions

Monitoring results did not show any items where applicable Forest Plan management prescriptions are out-of-date.

4. Amend Forest Plan S&Gs

Applicable Forest Plan S&Gs are out-of-date or do not provide specific management direction for 6 items:

3-1 Acres major vegetative type	5-19 Mule Deer population
3-2 Acres forest seral stage	9-A Noxious Weeds
5-13 Great Gray Owl S&Gs for habitat	20-1 Wilderness management

5. Amend Forest Plan Management Area Allocations

Applicable Forest Plan management area allocations are out-of-date for 1 item. Insect mortality is causing major changes within established Bald Eagle territories. Possible resolution may include boundary adjustments or relocations; however, detailed changes should occur only after completion of the Sierra Nevada Framework (see section 6. Recent Information):

5-16 Bald Eagle recovery habitat

6. Amend Forest Plan Schedule of Outputs

Forest Plan projected outputs are out-of-date and do not accurately reflect recent or expected future accomplishments; however, detailed changes should occur only after completion of the Sierra Nevada Framework.

7. Revise Forest Plan

Some conditions are not within limits of variability and several Forest Plan Amendments are needed. However, overall monitoring results indicate conditions are moving towards desired conditions as stated in the Forest Plan (USDA 1991). In addition, the IDT did not identify any items of sufficient magnitude to warrant Forest Plan revision.

8. Amend Forest Plan Monitoring Items

Some Forest Plan monitoring requirements are “accomplishments”; duplicates of other monitoring items; already covered by project plans and reports; or, feasible only at a larger than Forest scale.

a. Accomplishments

Monitoring requirements reflect “accomplishments” rather than resource conditions for 21 Forest Plan monitoring items (see Appendix, Table 2 for individual conclusions and recommendations). Existing “accomplishment” reports address these “accomplishments” outside from the annual interdisciplinary monitoring and evaluation report. Information and results would still be available to managers and the public through existing “accomplishment” reports.

4-1	Fire acre control objectives	15-5	Timber suitability
8-1	Land adjustments	16-1	Roads closed to public vehicles
8-2	Landline location priorities	16-2	Average daily traffic
8-3	Right-of-way acquisition	16-3	Road construction
9-2	Permitted and actual AUMs	16-4	Trail construction
10-3	Actual use of developed sites	17-3	Visual resource improvements
10-6	Designated route miles	21-1	Cost of practices and activity
15-1	Allowable sale quantity	21-2	Values of goods and services
15-2	Forest regulation	21-3	Return to counties
15-3	Reforestation and TSI needs	21-4	Local and area employment
15-4	Harvest unit size		

b. Duplicate or Not Feasible

Monitoring requirements are duplicates of other monitoring items; already covered by project plans and reports; or, feasible only at a larger than Forest scale for 18 items (see Appendix, Table 2 for individual conclusions and recommendations). These items can be removed from the annual Forest Plan monitoring program. Information and results would still be available to managers and the public through other Forest Plan monitoring items or through project reports.

1-3	Air pollution	12-1	Sensitive Plants selected populations
5-1	Wildlife: vegetation diversity	12-3	Sensitive Plants viable populations
5-7	Spotted Owl S&Gs for viable populations	13-2	Soil moisture conditions
7-1	Geology mitigation measures	13-3	Tree, grass and shrub growth
8-4	Land occupancy and use	15-7	Burn area reforestation
10-1	ROS Classes	15-8	Yield table projections
10-4	Condition of dispersed camping	17-1	Visual Resource planned objectives
10-7	Trail condition ratings	18-5	Water yield predictions
11-1	Riparian maintained/improved	20-6	Stream condition

9. Amend Forest Plan Chapter V

Forest Plan Chapter V does not consistently identify specific indicators of resource conditions that are measurable or subject to change. Standards and limits of variability are not consistently defined or even identified for several items. Some standards are not measurable, or not achievable; however, detailed changes and full integration of new monitoring requirements should occur only after completion of the Sierra Nevada Framework. Monitoring requirements are out-of-date, no longer feasible as written or, without specific indicators or measurable standards for 47 items:

1-1	Air quality related values	5-A	Bald Eagle nesting
1-2	Smoke emissions	5-B	Western Pond Turtle
3-1	Acres major vegetative type	5-C	Amphibians
3-2	Acres forest seral stage	9-3	Allotment management objectives
4-A	Fuel treatments	9-4	Range administration and compliance
5-2	Wildlife: special habitat	9-5	Range improvements
5-3	Wildlife: riparian areas	9-A	Noxious Weeds
5-4	Wildlife: stream ecosystems	10-2	Condition of developed sites
5-6	Spotted Owl population and habitat	12-2	Sensitive Plants all populations
5-9	Goshawk population	13-1	S&Gs for soil productivity
5-10	Flycatcher population	13-5	Soil moisture regime
5-11	Flycatcher S&Gs for habitat	13-6	Soil hydrologic function
5-12	Great Gray Owl population	13-7	Soil environmental health
5-13	Great Gray Owl S&Gs for habitat	14-1	Botanic SIA conditions
5-17	Gray Squirrel population	14-2	Cultural SIA conditions
5-18	Woodpecker population	14-3	Cave conditions
5-20	Fisher population	15-9	Timber stand improvements
5-21	Marten population	17-2	Trends in Scenic Corridors
5-22	Resident Trout population	18-1	Water quality standards (BMPs)
5-23	Lahontan Trout population	18-2	Watershed S&Gs
5-24	Riparian Bird habitat capability	18-3	Water quality baseline
5-25	Conifer Bird habitat capability	18-4	Watershed condition
5-26	Meadow Bird habitat capability	20-1	Wilderness management
5-27	Oak Bird habitat capability		

10. Increase Monitoring and/or Documentation

Although the IDT could not determine conditions on 78 monitoring items (see results C and E), it is unlikely that trends could be established for most, over the relatively short period since Forest Plan approval, even with more information and unlimited monitoring budgets. The IDT expects monitoring occurs, at the levels specified in the Forest Plan, on several items but is not consistently reported. The IDT found not enough information or documentation exists and the information is needed to help answer questions for 17 items:

5-5	Spotted Owl S&Gs for habitat	9-1	Range condition and trend
5-6	Spotted Owl population and habitat	9-A	Noxious Weeds
5-8	Goshawk S&Gs for habitat	12-1	Sensitive Plants selected populations
5-9	Goshawk population	19-1	Wild and Scenic management
5-10	Flycatcher population	20-2	Crowding
5-11	Flycatcher S&Gs for habitat	20-3	Campsite condition
5-12	Great Gray Owl population	20-4	Stock holding area condition
5-13	Great Gray Owl S&Gs for habitat	20-5	Firewood availability
5-14	Peregrine Falcon nesting		

3.3 Recommendations

The IDT reviewed their conclusions, and the recommendations contained in the 1997 Stanislaus National Forest Monitoring and Evaluation Report (USDA 1998), to develop the following recommendations. These items are recommended to the Forest Supervisor for any further action. Full implementation depends on adequate funding, Forest Leadership Team approval, and completion of the Sierra Nevada Framework. The National Environmental Policy Act (NEPA) process and regulations apply to all proposed projects and Forest Plan Amendments. Table 3 (see Appendix) lists the specific actions needed to implement these recommendations.

Short-term

- Improve application of management prescriptions for 3 items: Sensitive Plants selected populations (12-1); S&Gs for soil productivity (13-1); and, Watershed S&Gs (18-2).
- Complete Forest Plan Amendments for the Carson-Iceberg and Mokelumne Wildernesses.
- Focus monitoring program on resource conditions rather than accomplishments: complete a Forest Plan Amendment separating the 62 Forest Plan resource monitoring items from the 37 accomplishment and duplicate items (see conclusions 8a and 8b).
- Increase Monitoring and/or Documentation to the levels specified in the Forest Plan for 17 Forest Plan monitoring items (see Conclusion 10).

Long term

- Amend Forest Plan S&Gs (see Conclusion 4) and, amend Forest Plan Management Area Allocations for Bald Eagle Recovery Habitat (see Conclusion 5) pending results obtained from the Sierra Nevada Framework.
- Amend Forest Plan Chapter V (see Conclusion 9) pending results obtained from the Sierra Nevada Framework

4. Proposed Action Plan

The IDT proposed a schedule to implement their recommendations (see Appendix, Table 3). The Proposed Action Plan identifies the additional monitoring needed (or no longer needed) and the Forest Plan amendments proposed. Full implementation depends on adequate funding, Forest Leadership Team approval, and completion of the Sierra Nevada Framework. The National Environmental Policy Act (NEPA) process and regulations apply to all proposed projects and Forest Plan Amendments.

5. Status of Previous Recommendations

While conducting this evaluation, the IDT considered the current status of the recommendations contained in the 1997 Stanislaus National Forest Monitoring and Evaluation Report (USDA 1998a). That report identified the following short-term recommendations addressed during the period covered by this report.

- **Previous Recommendation:** Improve application of management prescriptions for 3 items: Riparian maintained/improved (11-1); S&Gs for soil productivity (13-1); and, Watershed S&Gs (18-2).
Status: The IDT found conditions not fully within standards for these three items: The IDT brought this recommendation forward for two of these items: S&Gs for soil productivity (13-1); and, Watershed S&Gs (18-2).
- **Previous Recommendation:** Complete Forest Plan Amendment for the Emigrant Wilderness.
Status: The Forest completed the Emigrant Wilderness Direction Forest Plan Amendment in April 1998 (USDA 1998b).
- **Previous Recommendation:** Focus monitoring program on resource conditions rather than accomplishments: complete a Forest Plan Amendment separating the 57 Forest Plan resource monitoring items from the 36 accomplishment and duplicate items (see conclusions 8a and 8b).
Status: The Forest identified a proposed action and conducted preliminary public scoping in January 1998. The IDT brought this recommendation forward but now recommends completion of this Forest Plan Amendment pending the Sierra Nevada Framework.
- **Previous Recommendation:** Complete the 5 year Forest Plan Review.
Status: No activity to date. Due to expectations of the Sierra Nevada Framework, the IDT did not bring this recommendation forward.
- **Previous Recommendation:** Increase Monitoring and/or Documentation for 20 Forest Plan monitoring items
Status: Additional monitoring and documentation occurred on 6 items previously identified for increased monitoring and/or documentation. The IDT determined not enough information exists and the information is needed to determine conditions for 10 of those items. The IDT brought this recommendation forward along with 7 additional items.
- **Previous Recommendation:** Develop the 1999 monitoring program, based on information contained in this Report, incorporating into the Program of Work by assigning priorities and funding.

Status: The IDT found some consideration given to the previous M&E Report; and, monitoring is identified as an emphasis item in the 1999 Program of Work. Since this item should now be considered normal business, the IDT did not bring this recommendation forward.

- **Previous Recommendation:** Schedule and conduct Forest Leadership Team reviews, at least two per year, of Forest Plan S&Gs implementation.

Status: The Forest conducted two reviews of Forest Plan S&Gs implementation during 1998 (USDA 1998c and USDA 1999). Since this item should now be considered normal business, the IDT did not bring this recommendation forward.

- **Previous Recommendation:** Develop ways to increase and improve monitoring documentation and reporting.

Status: The IDT expects additional monitoring occurs without adequate documentation or reporting. However, since this item should now be considered normal business, the IDT did not bring this recommendation forward.

6. Recent Information

Recent information, with potential application on the Stanislaus, is shown below.

Sierra Nevada Framework

The Forest Service adopted interim guidelines for protecting owl habitat in 1993 and subsequently began developing a long-term management plan for owl habitat and other issues. A draft Environmental Impact Statement (EIS) for this work was released in 1995. A revised draft EIS was scheduled for release in 1996. However, release of new scientific information in the Sierra Nevada Ecosystem Project (SNEP) report influenced the withdrawal of the revised draft EIS. The Secretary of Agriculture empanelled a Federal Advisory Committee (FAC) to review and advise on the EIS and SNEP report. The FAC report offered recommendations for addressing inconsistencies with new scientific information, identified shortcomings in some key elements of the analysis process, and stressed the need for more collaborative planning.

In response to the FAC report and other information, the Forest Service is now beginning a new project to amend the management plans for eleven national forests in the Sierra Nevada. As part of the larger Sierra Nevada Framework for Conservation and Collaboration (Framework), a new EIS is being developed to pursue cooperative solutions to range-wide issues in the Sierra.

To provide a foundation for Framework, a team of scientists from the Pacific Southwest Research Station, produced the Sierra Nevada Science Review (USDA 1998d). The Science Review summarizes new scientific information with specific attention to issues of urgent priority in the Sierra. A companion document, the Summary of Existing Management Direction (USDA 1998e) summarizes existing management direction on Sierra Nevada National Forests as it relates to issues brought forward in the Science Review.

A "Notice of Intent" (USDA 1998f) identifies the proposed action and possible alternatives for the new EIS. However, many additional issues surfaced in public meetings that are not appropriately addressed in the EIS. To address these issues, the Forest Service developed a "Design Paper" (USDA 1998g) to describe the agency's proposals for addressing issues that will not be included in the EIS. Currently, comments from the pre-NEPA scoping period, which ended January 19, 1999, are being analyzed. A draft EIS is expected to be available in 1999.

7. List of Preparers

Mike Brown

Experience	Forest Silviculturist	Stanislaus National Forest	1986 to Present
	Forest Logging Engineer	Stanislaus National Forest	1983 to 1986
	District Timber Management	Stanislaus National Forest	1980 to 1983
	Timber Sale Planner	Willamette National Forest	1977 to 1980
Education	Southern Illinois University	B.S.	1969

Jim Frazier

Experience	Forest Hydrologist	Stanislaus National Forest	1986 to Present
	Hydrologist	Stanislaus National Forest	1974 to 1986
Education	CSU, Humboldt	M.S.	1973
	CSU, Long Beach	B.A.	1968

John Maschi

Experience	Land Management Planner	Stanislaus National Forest	1996 to Present
	Assistant Recreation Officer	Stanislaus National Forest	1991 to 1996
	Landscape Architect	Stanislaus National Forest	1980 to 1990
Education	University of Illinois	M.L.A.	1978
	Rutgers University	B.S., Landscape Architecture	1976

Aileen Palmer

Experience	District Wildlife Biologist	Stanislaus National Forest	1980 to Present
	Forester	Lassen National Forest	1978 to 1980
Education	Colorado State University	M.S.	1978
	UC, Berkeley	B.S.	1975

Denise Van Keuren

Experience	Forest Range Conservationist	Stanislaus National Forest	1988 to Present
	Range Conservationist	Tonto National Forest	1985 to 1988
	Range Conservationist	Coronado National Forest	1979 to 1985
Education	Arizona State University	B.S., Range Management	1979

8. Location of Supporting Documentation

Supporting documentation and summary information for this monitoring report is part of the Planning Records on file at:

- Stanislaus National Forest Supervisor's Office
19777 Greenley Road
Sonora, CA 95370
(209) 532-3671

Project specific files are located at the appropriate Ranger District office:

- | | |
|--|--|
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Highway 4
P.O. Box 500
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(209) 795-1381 | ■ Groveland Ranger District
24525 Old Highway 120
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(209) 962-7825 |
| ■ Mi-Wuk Ranger District
Highway 108
P.O. Box 100
Mi-Wuk Village, CA
(209) 586-3234 | ■ Summit Ranger District
Highway 108
#1 Pinecrest Lake Road
Pinecrest, CA 95364
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9. Public Participation

This report is available by request. The Forest will inform the public of its availability by news release and posting on the internet (<http://www.r5.fs.fed.us/stanislaus/mgmt/mereport>). Comments received on this report will be considered in preparing future reports. Please submit comments to:

Stanislaus National Forest
Attn.: Monitoring
19777 Greenley Road
Sonora, CA 95370

10. Appendix

References

- USDA Forest Service. 1991. Stanislaus National Forest Land and Resource Management Plan, EIS, Forest Plan and Record of Decision. Pacific Southwest Region; San Francisco, CA.
- USDA Forest Service. 1998a. 1997 Stanislaus National Forest Monitoring and Evaluation Report. Stanislaus National Forest, Sonora, CA.
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- USDA Forest Service. 1998e. Sierra Nevada Framework for Conservation and Collaboration, Summary of Existing Management Direction. Pacific Southwest Region. August 11, 1998.
- USDA Forest Service. 1998f. Sierra Nevada Forest Plan Amendment Project EIS, Notice of Intent. Pacific Southwest Region. November 16, 1998.
- USDA Forest Service. 1998g. Sierra Nevada Framework Project, Design Paper (version 1.4). Pacific Southwest Region. November 18, 1998.
- USDA Forest Service. 1999. September 1998 Recreation Standards and Guidelines Review. Stanislaus National Forest, Sonora, CA.

Table 1: **Monitoring and Evaluation Accomplishments**; fiscal year 1998; Stanislaus National Forest; page 1 of 3 (see legend at end of table).

Resource	Key	Objective	FY 1998 Accomplishments																
			Location (Watershed Number)																
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1 Air Quality	1-1	Air quality related values																	
	1-2	Smoke emissions																	
	1-3	Air pollution																	
2 Cultural Resource	2-1	Cumulative effects; mitigation																	
3 Diversity	3-1	Acres major vegetative type*																	
	3-2	Acres forest seral stage*																	
4 Fire and Fuels	4-1	Acre control objectives																	
	4-A	Fuel treatments																	
5 Fish and Wildlife	5-1	Wildlife: vegetation diversity*																	
	5-2	Wildlife: special habitat																	
	5-3	Wildlife: riparian areas																	
	5-4	Wildlife: stream ecosystems																	
	Spotted Owl	5-5	S&Gs for habitat																
		5-6	Population and habitat trend																
	Goshawk	5-7	S&Gs for viable populations																
		5-8	S&Gs for habitat																
		5-9	Population trend																
	Flycatcher	5-10	Population status and trend																
		5-11	S&Gs for habitat																
	Great Gray Owl	5-12	Population status and trend																
		5-13	S&Gs for habitat																
	Peregrine Falcon	5-14	Nesting and reproductive																
	Bald Eagle	5-15	Population status and trend																
		5-16	Condition of recovery habitat																
	Gray Squirrel	5-17	Population status and trend																
	Woodpecker	5-18	Population status and trend																
	Mule Deer	5-19	Population status and trend																
	Fisher	5-20	Population status and trend																
	Marten	5-21	Population status and trend																
	Resident Trout	5-22	Population status and trend																
	Lahontan Trout	5-23	Population status and trend																
	Riparian Bird	5-24	Habitat capability trends																
	Conifer Bird	5-25	Habitat capability trends																
	Meadow Bird	5-26	Habitat capability trends																
	Oak Bird	5-27	Habitat capability trends																
	5-A	Bald Eagle nesting																	
	5-B	Western Pond Turtle																	
	5-C	Amphibians																	
6 Forest Pests	6-1	Problems and damage																	
7 Geology	7-1	Mitigation measures																	

Table 1: **Monitoring and Evaluation Accomplishments**; fiscal year 1998; Stanislaus National Forest; page 2 of 3 (see legend at end of table).

Resource	Key	Objective	FY 1998 Accomplishments																
			Location (Watershed Number)																
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
8 Lands	8-1	Land adjustments																	
	8-2	Landline location priorities																	
	8-3	Right-of-way acquisition																	
	8-4	Land occupancy and use																	
9 Range	9-1	Range condition and trend*																	
	9-2	Permitted and actual AUMs																	
	9-3	Allotment management																	
	9-4	Administration and compliance																	
	9-5	Range improvements																	
	9-A	Noxious Weeds																	
10 Recreation	10-1	ROS Classes																	
	10-2	Condition of developed sites																	
	10-3	Actual use of developed sites																	
	10-4	Condition of dispersed camping																	
	10-5	Motor vehicle conflicts																	
	10-6	Designated route miles																	
	10-7	Trail condition ratings																	
11 Riparian Areas	11-1	Riparian maintained/improved																	
12 Sensitive Plants	12-1	Selected populations																	
	12-2	Changes to all populations																	
	12-3	Viable populations																	
13 Soils	13-1	S&Gs for soil productivity																	
	13-2	Soil moisture conditions																	
	13-3	Tree, grass and shrub growth																	
	13-4	Soil resource improvements																	
	13-5	Soil moisture regime																	
	13-6	Soil hydrologic function																	
	13-7	Soil environmental health																	
14 Special Areas	14-1	Botanic SIA conditions*																	
	14-2	Cultural SIA conditions																	
	14-3	Cave conditions																	
15 Timber	15-1	Allowable sale quantity																	
	15-2	Forest regulation																	
	15-3	Reforestation and TSI needs																	
	15-4	Harvest unit size																	
	15-5	Timber suitability																	
	15-6	Reforestation																	
	15-7	Burn area reforestation																	
	15-8	Yield table projections*																	
	15-9	Timber stand improvements																	

Table 1: **Monitoring and Evaluation Accomplishments**; fiscal year 1998; Stanislaus National Forest; page 3 of 3 (see legend at end of table).

Resource	Key	Objective	FY 1998 Accomplishments																
			Location (Watershed Number)																
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
16 Transportation	16-1	Roads closed to public vehicles																	
	16-2	Average daily traffic																	
	16-3	Road construction																	
	16-4	Trail construction																	
17 Visual Resource	17-1	Planned objectives																	
	17-2	Trends in Scenic Corridors																	
	17-3	Visual resource improvements																	
18 Water	18-1	Water quality standards (BMPs)																	
	18-2	Watershed S&Gs																	
	18-3	Water quality baseline																	
	18-4	Watershed condition																	
	18-5	Water yield predictions																	
19 Wild and Scenic	19-1	Wild and Scenic management															*1		
20 Wilderness	20-1	Wilderness management																	
	20-2	Crowding																	
	20-3	Campsite condition																	
	20-4	Stock holding area condition																	
	20-5	Firewood availability																	
	20-6	Stream condition																	
21 Economic	21-1	Cost of practices and activity																	
	21-2	Values of goods and services																	
	21-3	Return to counties																	
	21-4	Local and area employment																	
22 Forest S&Gs	22-1	S&Gs reviews																	





Legend

Key

- 9-1 Forest Plan Item
- 9 Resource Number
- 1 Item Number
- * 10 Year Report Item
- 9-A Non-Forest Plan Item
- 9 Resource Number
- A Item Letter

- AUMs Animal Unit Months
- BMPs Best Management Practices
- FY Fiscal Year (10-1 to 9/30)
- ROS Recreation Opportunity Spectrum
- SIA Special Interest Area
- S&Gs Standards and Guidelines
- TSI Timber Stand Improvement

Accomplishments

-  Activities Occurred
-  None or Not Reported
-  Not Applicable
-  *1 The Sierra National Forest manages the Stanislaus portion of the Merced Wild and Scenic River

Watersheds

- 1 North Fork Mokelumne
- 2 Middle Fork Mokelumne
- 3 South Fork Mokelumne
- 4 Calaveras
- 5 Stanislaus
- 6 North Fork Stanislaus
- 7 Middle Fork Stanislaus (low)
- 8 Middle Fork Stanislaus (up)
- 9 South Fork Stanislaus
- 10 Tuolumne
- 11 North Fork Tuolumne
- 12 Clavey
- 13 Cherry Creek
- 14 Middle Fork Tuolumne
- 15 South Fork Tuolumne
- 16 Merced
- 17 North Fork Merced

Table 2: **Monitoring and Evaluation Results, Conclusions and Recommendations**; fiscal year 1998; Stanislaus National Forest; page 1 of 3 (see legend at end of table).

Resource	Key	Objective	Results					Conclusions/Recommendations	
			A	B	C	D	E		
1 Air Quality	1-1	Air quality related values						9 (not feasible as written)	
	1-2	Smoke emissions						9	
	1-3	Air pollution						8b (feasible only at larger than Forest scale)	
2 Cultural Resource	2-1	Cumulative effects; mitigation						1	
3 Diversity	3-1	Acres major vegetative type*						4, 9 (depends on Framework)	
	3-2	Acres forest seral stage*						4, 9 (depends on Framework)	
4 Fire and Fuels	4-1	Acre control objectives						8a	
	4-A	Fuel treatments						9 (depends on Framework)	
5 Fish and Wildlife	5-1	Wildlife: vegetation diversity*						8b (cover in 3-1), (depends on Framework)	
	5-2	Wildlife: special habitat						9	
	5-3	Wildlife: riparian areas						9	
	5-4	Wildlife: stream ecosystems						9	
	Spotted Owl	5-5	S&Gs for habitat						10
		5-6	Population and habitat trend						9, 10
	Goshawk	5-7	S&Gs for viable populations						8b (feasible only at larger than Forest scale)
		5-8	S&Gs for habitat						10
	Flycatcher	5-9	Population trend						9, 10
		5-10	Population status and trend						9, 10
	Great Gray Owl	5-11	S&Gs for habitat						9, 10
		5-12	Population status and trend						9, 10
	Peregrine Falcon	5-13	S&Gs for habitat						4 (review territories), 9, 10
		5-14	Nesting and reproductive						10
	Bald Eagle	5-15	Population status and trend						1
		5-16	Condition of recovery habitat						5 (review territories)
	Gray Squirrel	5-17	Population status and trend						9 (habitat focus)
	Woodpecker	5-18	Population status and trend						9 (habitat focus)
	Mule Deer	5-19	Population status and trend						4 (Forest Plan appeal resolution)
	Fisher	5-20	Population status and trend						9 (habitat focus)
	Marten	5-21	Population status and trend						9 (habitat focus)
	Resident Trout	5-22	Population status and trend						9
	Lahontan Trout	5-23	Population status and trend						9
	Riparian Bird	5-24	Habitat capability trends						9
	Conifer Bird	5-25	Habitat capability trends						9
	Meadow Bird	5-26	Habitat capability trends						9
	Oak Bird	5-27	Habitat capability trends						9
5-A		Bald Eagle nesting						9	
5-B		Western Pond Turtle						9	
	5-C	Amphibians						9	
6 Forest Pests	6-1	Problems and damage						1	
7 Geology	7-1	Mitigation measures						8b (report by project)	

Table 2: **Monitoring and Evaluation Results, Conclusions and Recommendations**; fiscal year 1998; Stanislaus National Forest; page 2 of 3 (see legend at end of table).

Resource	Key	Objective	Results					Conclusions/Recommendations
			A	B	C	D	E	
8 Lands	8-1	Land adjustments						8a
	8-2	Landline location priorities						8a
	8-3	Right-of-way acquisition						8a
	8-4	Land occupancy and use						8b (report by project)
9 Range	9-1	Range condition and trend*						10 (10 year report item)
	9-2	Permitted and actual AUMs						8a
	9-3	Allotment management						9
	9-4	Administration and compliance						9
	9-5	Range improvements						9
	9-A	Noxious Weeds						4, 9, 10 (depends on Framework)
10 Recreation	10-1	ROS Classes						8b (report by project)
	10-2	Condition of developed sites						9 (not feasible as written)
	10-3	Actual use of developed sites						8a
	10-4	Condition of dispersed camping						8b
	10-5	Motor vehicle conflicts						1
	10-6	Designated route miles						8a
	10-7	Trail condition ratings						8b
11 Riparian Areas	11-1	Riparian maintained/improved						8b (cover in 18-2)
12 Sensitive Plants	12-1	Selected populations						2, 8b, 10 (not feasible as written)
	12-2	Changes to all populations						9
	12-3	Viable populations						8b (feasible only at larger than Forest scale)
13 Soils	13-1	S&Gs for soil productivity						2, 9
	13-2	Soil moisture conditions						8b (cover in 13-1)
	13-3	Tree, grass and shrub growth						8b (cover in 13-1)
	13-4	Soil resource improvements						1
	13-5	Soil moisture regime						9
	13-6	Soil hydrologic function						9
	13-7	Soil environmental health						9
14 Special Areas	14-1	Botanic SIA conditions*						9
	14-2	Cultural SIA conditions						9
	14-3	Cave conditions						9
15 Timber	15-1	Allowable sale quantity						8a
	15-2	Forest regulation						8a
	15-3	Reforestation and TSI needs						8a
	15-4	Harvest unit size						8a
	15-5	Timber suitability						8a
	15-6	Reforestation						1 (catastrophic events)
	15-7	Burn area reforestation						8b (cover in 15-6)
	15-8	Yield table projections*						8b (feasible only at larger than Forest scale)
	15-9	Timber stand improvements						9

Table 2: **Monitoring and Evaluation Results, Conclusions and Recommendations**; fiscal year 1998; Stanislaus National Forest; page 3 of 3 (see legend at end of table).

Resource	Key	Objective	Results					Conclusions/Recommendations
			A	B	C	D	E	
16 Transportation	16-1	Roads closed to public vehicles						8a
	16-2	Average daily traffic						8a
	16-3	Road construction						8a
	16-4	Trail construction						8a
17 Visual Resource	17-1	Planned objectives						8b (report by project)
	17-2	Trends in Scenic Corridors						9
	17-3	Visual resource improvements						8a
18 Water	18-1	Water quality standards (BMPs)						9
	18-2	Watershed S&Gs						2, 9
	18-3	Water quality baseline						9
	18-4	Watershed condition						9
	18-5	Water yield predictions						8b (not feasible as written)
19 Wild and Scenic	19-1	Wild and Scenic management						10
20 Wilderness	20-1	Wilderness management						4, 9 (Carson-Iceberg and Mokelumne)
	20-2	Crowding						10 (Emigrant)
	20-3	Campsite condition						10 (Emigrant)
	20-4	Stock holding area condition						10 (Emigrant)
	20-5	Firewood availability						10 (Emigrant)
	20-6	Stream condition						8b (Emigrant)
21 Economic	21-1	Cost of practices and activity						8a
	21-2	Values of goods and services						8a
	21-3	Return to counties						8a
	21-4	Local and area employment						8a
22 Forest S&Gs	22-1	S&Gs reviews						1 (catastrophic events)






Legend

Key

- 9-1** Forest Plan Item
- 9** Resource Number
- 1** Item Number
- *** 10 Year Report Item
- 9-A** Non-Forest Plan Item
- 9** Resource Number
- A** Item Letter

- AUMs** Animal Unit Months
- BMPs** Best Management Practices
- FY** Fiscal Year (10-1 to 9/30)
- ROS** Recreation Opportunity Spectrum
- SIA** Special Interest Area
- S&Gs** Standards and Guidelines
- TSI** Timber Stand Improvement

Results

-  **A** Conditions within Limits of Variability
-  **B** Conditions not within Limits of Variability
-  **C** Not enough Information
-  **D** Not Applicable (no standards)
-  **E** None Conducted or Reported

Conclusions/Recommendations

- 1** No Action (continue current monitoring)
- 2** Improve Application of Management Prescriptions
- 3** Amend Forest Plan Management Prescriptions
- 4** Amend Forest Plan S&Gs
- 5** Amend Forest Plan Management Area Allocations
- 6** Amend Forest Plan Schedule of Outputs
- 7** Revise Forest Plan
- 8** Amend Forest Plan Monitoring Items
 - a.** Accomplishment
 - b.** Duplicate or Not Feasible
- 9** Amend Forest Plan Chapter V
- 10** Increase Monitoring and/or Documentation

Table 3: **Proposed Action Plan**; Interdisciplinary Team (IDT) recommendations; Stanislaus National Forest. Full implementation depends on adequate funding, Forest Leadership Team approval, and completion of the Sierra Nevada Framework. The National Environmental Policy Act (NEPA) process and regulations apply to all proposed projects and Forest Plan Amendments.

Action	Who	When
Improve application of prescriptions: 12-1 Sensitive Plants selected populations 13-1 S&Gs for soil productivity 18-2 Watershed S&Gs	District Rangers	on-going
Amend Forest Plan Standards and Guidelines: 3-1 Acres major vegetative type 3-2 Acres forest seral stage 5-13 Great Gray Owl S&Gs for habitat 5-19 Mule Deer population 9-A Noxious Weeds 20-1 Carson-Iceberg and Mokelumne Direction	Resource Management Resource Management Resource Management Resource Management Resource Management Calaveras and Summit DRs	pending Framework pending Framework pending Framework pending Framework pending Framework 9/30/99
Amend Forest Plan Management Area Allocation: 5-16 Bald Eagle designated recovery habitat	Resource Management	pending Framework
Amend Forest Plan Monitoring Items	IDT and Forest Leadership	pending Framework
Amend Forest Plan Chapter V	IDT and Forest Leadership	pending Framework
Increase monitoring and/or documentation to the levels specified in the Forest Plan: 5-5 Spotted Owl S&Gs for habitat 5-6 Spotted Owl population and habitat 5-8 Goshawk S&Gs for habitat 5-9 Goshawk population 5-10 Flycatcher population 5-11 Flycatcher S&Gs for habitat 5-12 Great Gray Owl population 5-13 Great Gray Owl S&Gs for habitat 5-14 Peregrine Falcon nesting 9-1 Range condition and trend 9-A Noxious Weeds 12-1 Sensitive Plants selected populations 19-1 Wild and Scenic management 20-2 Crowding 20-3 Campsite condition 20-4 Stock holding area condition 20-5 Firewood availability	District Rangers	on-going