



United States
Department of
Agriculture

Forest Service

Pacific
Southwest
Region

Stanislaus
National Forest



March 1998

1997 Monitoring and Evaluation Report



Stanislaus National Forest

1997 Monitoring and Evaluation Report

Alpine, Calaveras, Mariposa and Tuolumne Counties, California
March 1998

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

Further Information: Stanislaus National Forest
Attn: Monitoring
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Abstract

The 1997 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, 1996 to September 30, 1997. 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.



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File Code: 1900
Date: March 31, 1998

Dear Friends:

I am pleased to announce completion of the Stanislaus National Forest 1997 Monitoring and Evaluation Report. The Report documents the results of monitoring and evaluation activities accomplished during federal fiscal year 1997 (October 1, 1996 to September 30, 1997). It also presents the Interdisciplinary Team's (IDT) conclusions and recommendations based on those results.

The Report identifies several major 1997 accomplishments, related to the recommendations contained in the Stanislaus National Forest 1994-1996 Monitoring and Evaluation Report:

- Improved application of management prescriptions and conditions now within standards for two items: Cultural Resource; and, Water Quality.
- The Forest completed the Motor Vehicle Travel Management Forest Plan Amendment.
- The Forest identified a proposed action and conducted preliminary public scoping for a Forest Plan Amendment separating the 57 Forest Plan resource monitoring items from the 36 accomplishment and duplicate items.
- Additional monitoring and documentation occurred on 10 items previously identified for increased monitoring and/or documentation.
- The 1998 Program of Work identifies monitoring as an emphasis item.
- Managers often consider monitoring information while developing and approving site specific projects.

Caring for the Land and Serving People





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

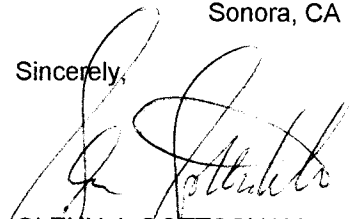
1. Improve application of management prescriptions for 3 items: Riparian maintained/improved; Standards & Guidelines (S&Gs) for soil productivity; and, Watershed S&Gs.
2. Complete a Forest Plan Amendment for the Emigrant Wilderness.
3. Complete a Forest Plan Amendment separating the 57 Forest Plan resource monitoring items from the 36 accomplishment and duplicate items.
4. Complete the 5 year Forest Plan Review.
5. Utilize project monitoring to increase Monitoring and/or Documentation as funding allows.
6. Develop the 1999 monitoring program, based on information contained in the 1997 Report.
7. Schedule and conduct Forest Leadership Team reviews, at least two per year, of Forest Plan S&Gs implementation.
8. Develop ways to increase and improve monitoring documentation and reporting.

The 1997 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 download the Report (Word format (.doc) in a 46kb zip file) from 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
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Sincerely,



GLENN J. GOTTSCHALL
Acting Forest Supervisor



1997 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 1997 (October 1, 1996 to September 30, 1997). The accomplishments and results 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 includes a total of 93 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 1997. 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 (SNEP, etc.)?

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

The Forest Plan includes a total of 93 individual monitoring items in 22 broad categories ranging from Air Quality to Forest Standards and Guidelines (S&Gs). Monitoring activity occurred on 29 of the 93 Forest Plan items and on 9 non-Forest Plan items. The IDT reviewed the information pertaining to all 102 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 1997. While conducting this portion of the evaluation, the IDT also considered the monitoring results contained in the 1994-1996 Stanislaus National Forest Monitoring and Evaluation Report (USDA 1997). 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 7 items:

- | | |
|---|---|
| 2-1 Cultural Resource cumulative effects | 6-1 Forest Pests problems and damage |
| 5-14 Peregrine Falcon nesting | 9-2 Permitted and actual AUMs |
| 5-15 Bald Eagle population | 18-1 Water quality standards (BMPs) |
| 5-19 Mule Deer population | |

B. Conditions not Within Limits of Variability

The IDT determined conditions are not within limits of variability on 8 items:

- | | |
|--|--|
| 5-11 Flycatcher S&Gs for habitat | 10-5 Effects of OHVs |
| 9-3 Allotment management objectives | 11-1 Riparian maintained/improved |
| 9-4 Range administration and compliance | 13-1 S&Gs for soil productivity |
| 9-5 Range improvements | 18-2 Watershed S&Gs |
| 10-2 Condition of developed sites | |

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

- 5-11** Willow Flycatcher S&Gs for Habitat
Grazing effects do not meet the limit of variability for this activity, in Ackerson Meadow, a known repeated Willow Flycatcher nesting area.
- 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.
- 10-5** Effects of OHVs
The limit of variability for this activity allows no unacceptable (un-defined) soil or resource damage. Approximately 20 miles of OHV trails needing major reconstruction are considered in "unacceptable" condition. These trails will be reconstructed or closed and relocated due to poor location or high erosion hazard.
- 11-1** Riparian Maintained/Improved
Monitoring indicates most, but less than 90% of Streamside Management Zones (SMZs), are being implemented correctly.
- 13-1** S&Gs for Soil Productivity
This item includes four soil quality standards: Soil Cover, Soil Porosity, Soil Organic Matter, and Surface Organic Matter. Contour tilling for some site preparation projects are not within the limit of variability for soil cover or soil organic matter. Some areas do not meet the surface organic matter limits of variability, possibly due to older plantations, such as Wrights Creek or Granite Burn, that did not require retention of large woody debris.
- 18-2** Watershed S&Gs
Streambank stability, ground cover and vegetative structure monitoring indicate the SMZ S&G is implemented at less than 90%.

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 14 items:

- | | |
|---|---|
| 1-3 Air pollution | 5-12 Great Gray Owl population |
| 5-1 Wildlife: vegetation diversity | 5-22 Resident Trout population |
| 5-2 Wildlife: special habitat | 5-23 Lahontan Trout population |
| 5-4 Wildlife: stream ecosystems | 9-1 Range condition and trend |
| 5-6 Spotted Owl population and habitat | 10-4 Condition of dispersed camping |
| 5-9 Goshawk population | 12-1 Sensitive Plants selected populations |
| 5-10 Flycatcher population | 20-1 Wilderness management |

D. Not Applicable

The IDT could not evaluate conditions because the Forest Plan does not include monitoring standards or limits of variability on 10 items:

- | | |
|----------------------------------|--|
| 3-A Vegetation treatments | 5-D Amphibians |
| 4-A Fuel treatments | 9-A Noxious Weeds |
| 5-A Bald Eagle nesting | 15-6 Reforestation |
| 5-B Sierra Nevada Red Fox | 15-A Herbicides |
| 5-C Western Pond Turtle | 19-A Wild and Scenic River values |

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 63 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 1997. While conducting this portion of the evaluation, the IDT also considered the conclusions contained in the 1994-1996 Stanislaus National Forest Monitoring and Evaluation Report (USDA 1997).

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

- Improved application of management prescriptions and conditions now within standards for two items: Cultural Resource (2-1); and, Water Quality (18-1).
- The Forest completed the Motor Vehicle Travel Management Forest Plan Amendment.
- The Forest identified a proposed action and conducted preliminary public scoping for a Forest Plan Amendment separating the 57 Forest Plan resource monitoring items from the 36 accomplishment and duplicate items.
- Additional monitoring and documentation occurred on 10 items previously identified for increased monitoring and/or documentation.
- The 1998 Program of Work identifies monitoring as an emphasis item.
- Managers often consider monitoring information while developing and approving site specific projects.

- 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 5 items:

- | | |
|--------------------------------------|--|
| 3-A Vegetation treatments | 6-1 Forest Pest problems and damage |
| 5-14 Peregrine Falcon nesting | 15-A Herbicides |
| 5-15 Bald Eagle population | |

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:

- | | |
|--|----------------------------|
| 11-1 Riparian maintained/improved | 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 5 items:

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

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 5 year Forest Plan Review:

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 5 year Forest Plan review.

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	15-7 Burn area reforestation
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
10-3 Actual use of developed sites	16-4 Trail construction
15-1 Allowable sale quantity	17-3 Visual resource improvements
15-2 Forest regulation	21-1 Cost of practices and activity
15-3 Reforestation and TSI needs	21-2 Values of goods and services
15-4 Harvest unit size	21-3 Return to counties
15-5 Timber suitability	21-4 Local and area employment
15-6 Reforestation	

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 15 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.

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	13-4 Effects of OHVs
9-2 Permitted and actual AUMs	15-8 Yield table projections
9-3 Allotment management objectives	17-1 Visual Resource planned objectives
9-5 Range improvements	18-5 Water yield predictions
10-1 ROS Classes	

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 5 year Forest Plan Review. Monitoring requirements are out-of-date, no longer feasible as written or, without specific indicators or measurable standards for 52 items:

1-1 Air quality related values	5-A Bald Eagle nesting
1-2 Smoke emissions	5-B Sierra Nevada Red Fox
1-3 Air pollution	5-C Western Pond Turtle
2-1 Cultural Resource cumulative effects	5-D Amphibians
3-1 Acres major vegetative type	9-4 Range administration and compliance
3-2 Acres forest seral stage	10-2 Condition of developed sites
4-A Fuel treatments	10-5 Effects of OHVs
5-2 Wildlife: special habitat	11-1 Riparian maintained/improved
5-3 Wildlife: riparian areas	12-1 Sensitive Plants selected populations
5-4 Wildlife: stream ecosystems	12-2 Sensitive Plants all populations
5-6 Spotted Owl population and habitat	13-1 S&Gs for soil productivity
5-9 Goshawk population	13-6 Soil moisture regime
5-10 Flycatcher population	13-7 Soil hydrologic function
5-11 Flycatcher S&Gs for habitat	13-8 Soil environmental health
5-12 Great Gray Owl population	14-1 Botanic SIA conditions
5-13 Great Gray Owl S&Gs for habitat	14-2 Cultural SIA conditions
5-17 Gray Squirrel population	14-3 Cave conditions
5-18 Woodpecker population	15-9 Timber stand improvements
5-20 Fisher population	17-2 Trends in Scenic Corridors
5-21 Marten population	18-1 Water quality standards (BMPs)
5-22 Resident Trout population	18-2 Watershed S&Gs
5-23 Lahontan Trout population	18-3 Water quality baseline
5-24 Riparian Bird habitat capability	18-4 Watershed condition
5-25 Conifer Bird habitat capability	19-A Wild and Scenic River values
5-26 Meadow Bird habitat capability	20-1 Wilderness management
5-27 Oak Bird habitat capability	22-1 Forest S&Gs reviews

10. Increase Monitoring and/or Documentation

Although the IDT could not determine conditions on 80 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 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 20 items:

1-3 Air pollution	5-16 Bald Eagle recovery habitat
5-4 Wildlife: stream ecosystems	9-1 Range condition and trend
5-5 Spotted Owl S&Gs for habitat	9-4 Range administration and compliance
5-6 Spotted Owl population and habitat	10-4 Condition of dispersed camping
5-8 Goshawk S&Gs for habitat	12-1 Sensitive Plants selected populations
5-9 Goshawk population	13-5 Soil resource improvements
5-10 Flycatcher population	14-1 Botanic SIA conditions
5-11 Flycatcher S&Gs for habitat	14-2 Cultural SIA conditions
5-12 Great Gray Owl population	19-1 Wild and Scenic management
5-13 Great Gray Owl S&Gs for habitat	22-1 Forest S&Gs reviews

3.3 Recommendations

The IDT reviewed their conclusions, and the recommendations contained in the 1994-1996 Stanislaus National Forest Monitoring and Evaluation Report (USDA 1997), to develop the following recommendations. These items are recommended to the Forest Supervisor for any further action. Table 3 (see Appendix) lists the specific actions needed to implement these recommendations.

Short-term

- 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).
- Complete Forest Plan Amendment for the Emigrant Wilderness.
- 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).
- Complete the 5 year Forest Plan Review.
- Increase Monitoring and/or Documentation for 20 Forest Plan monitoring items (see Conclusion 10).
- Develop the 1999 monitoring program, based on information contained in this Report, incorporating into the Program of Work by assigning priorities and funding.
- Schedule and conduct Forest Leadership Team reviews, at least two per year, of Forest Plan S&Gs implementation.
- Develop ways to increase and improve monitoring documentation and reporting.

Long term

- Amend Forest Plan Diversity 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 5 year Forest Plan review.
- Amend Forest Plan Chapter V (see Conclusion 9) pending results obtained from the 5 year Forest Plan review.
- Prioritize monitoring activities and concentrate annual efforts to obtain results on a watershed or bio-regional scale.
- Coordinate with other federal and state agencies on large scale monitoring.

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 approval, and completion of the 5 year Forest Plan Review. The National Environmental Policy Act (NEPA) process and regulations apply to all proposed Forest Plan Amendments.

5. Status of Previous Recommendations

While conducting this evaluation, the IDT considered the current status of the recommendations contained in the 1994-1996 Stanislaus National Forest Monitoring and Evaluation Report (USDA 1997). That report identified the following short term recommendations addressed during the period covered by this report.

- **Previous Recommendation:** Improve application of management prescriptions for 7 Forest Plan monitoring items and 1 non-Forest Plan item.
Status: The IDT found improved application of management prescriptions and conditions now within standards for two of those items: Cultural Resource (2-1); and, Water Quality (18-1). The IDT brought this recommendation forward for three of the remaining items: Riparian Areas (11-1); S&Gs for soil productivity (13-1); and, Watershed S&Gs (18-2).
- **Previous Recommendation:** Complete Forest Plan Amendments for the Emigrant Wilderness and Motor Vehicle Travel Management.
Status: The Forest completed the Motor Vehicle Travel Management Forest Plan Amendment in February 1998 (USDA 1998). Completion of the Emigrant Wilderness Forest Plan Amendment is expected in 1998. The IDT brought the recommendation forward for the Emigrant.
- **Previous Recommendation:** Focus monitoring program on resource conditions rather than accomplishments. Complete a minor Forest Plan Amendment separating the 57 Forest Plan resource monitoring items from the 36 accomplishment and duplicate items.

Status: The Forest identified a proposed action and conducted preliminary public scoping in January 1998. Completion of this Forest Plan Amendment is expected by October 1998. The IDT brought this recommendation forward.

- **Previous Recommendation:** Initiate the 5 year Forest Plan Review.

Status: No activity to date. Completion of this Forest Plan Review is expected by October 1998. The IDT brought this recommendation forward.

- **Previous Recommendation:** Increase Monitoring and/or Documentation for 10 Forest Plan monitoring items.

Status: Although additional monitoring and documentation occurred, the IDT determined not enough information exists to determine conditions for all 10 items. The IDT brought this recommendation forward along with 10 additional items.

- **Previous Recommendation:** Complete annual Monitoring and Evaluation (M&E) Report by March 31.

Status: Completion of each annual M&E report is expected by March 31. The IDT did not bring this recommendation forward.

- **Previous Recommendation:** Prepare a Forest Service Manual Supplement to establish tracking and reporting protocols and establish formal role of Forest and District Monitoring Coordinators.

Status: No activity to date. The IDT did not bring this recommendation forward.

- **Previous Recommendation:** Develop annual monitoring programs, based on information contained in the previous M&E Report, incorporating into 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 1998 Program of Work. The IDT brought this recommendation forward.

- **Previous Recommendation:** Schedule and conduct reviews of Forest Plan S&Gs implementation.

Status: No activity to date. The IDT brought this recommendation forward.

- **Previous Recommendation:** Add Monitoring Performance Element to manager's performance evaluation. Consider monitoring part of the normal job and address monitoring in project planning. Consider Monitoring not complete without adequate documentation and reporting.

Status: No activity to date on adding performance elements; however, the IDT did not bring this portion of the recommendation forward. The IDT found monitoring often considered as part of the normal job and addressed in project planning and did not bring this portion of the recommendation forward. The IDT expects additional monitoring occurs without adequate documentation or reporting and brought this portion of the recommendation forward.

6. Recent Findings

Recent findings, with potential application on the Stanislaus, are shown below.

Clavey River Wild and Scenic River Value Review

The Clavey River Wild and Scenic River Value Review (Apperson 1997) is a collaborative assessment of the affects of Stanislaus National Forest management on the 8 Outstandingly Remarkable (OR) values of the Clavey River. The findings are intended as a resource to be used by the Stanislaus National Forest when considering management within the Clavey watershed. The findings also serve as the foundation for further collaborative approaches to management within the watershed.

The review identifies the following priorities for the Forest Service.

1. Conduct a Clavey watershed analysis. Use the Clavey Review findings and recommendations to help identify key issues and information needs.
2. A Bell Meadow Research Natural Area management plan should be completed and implemented.
3. Address issues and concerns raised in this review in all planning documents for projects in the Clavey watershed.
4. Consider amending Forest Plan Chapter V (Monitoring and Evaluation) to include specific key indicators for outstandingly remarkable values.
5. Continue to use a collaborative approach to management within the Clavey watershed.

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

Deb Colston

Experience	Forest Writer-Editor	Stanislaus National Forest	1990 to Present
	Cultural Resource Specialist	Stanislaus National Forest	1985 to 1989
Education	CSU, Chico	B.A., Anthropology	1971

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

Katie Phillips

Experience	Assistant Zone Ecologist	Stanislaus National Forest	1996 to Present
	RNA Ecologist	Region 5	1993 to 1996
Education	UC, Berkeley	M.S., Range Management	1993
	CSU, Humboldt	B.S., Range Management	1976

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:

- | | |
|--|--|
| ■ Calaveras Ranger District
Highway 4
P.O. Box 500
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(209) 795-1381 | ■ Groveland Ranger District
24525 Old Highway 120
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| ■ Mi-Wuk Ranger District
Highway 108
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Mi-Wuk Village, CA
(209) 586-3234 | ■ Summit Ranger District
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#1 Pinecrest Lake Road
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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; notice in the Forest's Environmental Analysis Quarterly; and, posting on the Forest's internet site (<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

- Apperson S., et. al. 1997. Clavey River Wild and Scenic River Value Review. Sonora, CA.
- 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. 1997. 1994-1996 Stanislaus National Forest Monitoring and Evaluation Report. Stanislaus National Forest, Sonora, CA.
- USDA Forest Service. 1998. Motor Vehicle Travel Management Forest Plan Amendment. Stanislaus National Forest, Sonora, CA.

Table 1: **Monitoring and Evaluation Accomplishments**; fiscal year 1997; Stanislaus National Forest; page 1 of 3 (see legend at end of table).

Resource	Key	Objective	FY 1997 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*																	
	3-A	Vegetation treatments																	
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																
		5-7	S&Gs for viable populations																
	Goshawk	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	Sierra Nevada Red Fox																	
	5-C	Western Pond Turtle																	
	5-D	Amphibians																	
6 Forest Pests	6-1	Problems and damage																	
7 Geology	7-1	Mitigation measures																	

Table 1: **Monitoring and Evaluation Accomplishments**; fiscal year 1997; Stanislaus National Forest; page 2 of 3 (see legend at end of table).

		FY 1997 Accomplishments																	
Resource	Key	Objective	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	Effects of OHVs																	
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	Effects of OHVs																	
	13-5	Soil resource improvements																	
	13-6	Soil moisture regime																	
	13-7	Soil hydrologic function																	
	13-8	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																	
	15-A	Herbicides																	

Table 1: **Monitoring and Evaluation Accomplishments**; fiscal year 1997; Stanislaus National Forest; page 3 of 3 (see legend at end of table).

Resource	Key	Objective	FY 1997 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 Rivers	19-1	Wild and Scenic management		■	■	■	■	■	■	■	■	■	■	■	■	■	■	*1	
	19-A	Wild and Scenic River values		■	■	■	■	■	■	■	■	■	■	■	■	■	■	*1	
20 Wilderness	20-1	Wilderness management		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
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

<p>Key</p> <p>19-1 Forest Plan Item</p> <p>19 Resource Number</p> <p>1 Item Number</p> <p>* 10 Year Report Item</p> <p>19-A Non-Forest Plan Item</p> <p>19 Resource Number</p> <p>A Item Letter</p> <p>AUMs Animal Unit Months</p> <p>BMPs Best Management Practices</p> <p>FY Fiscal Year (10-1 to 9/30)</p> <p>ROS Recreation Opportunity Spectrum</p> <p>OHVs Off-Highway Vehicles</p> <p>SIA Special Interest Area</p> <p>S&Gs Standards and Guidelines</p> <p>TSI Timber Stand Improvement</p>	<p>Accomplishments</p> <p>■ Activities Occurred</p> <p>□ None or Not Reported</p> <p>■ Not Applicable</p> <p>*1 The Sierra National Forest manages the Stanislaus portion of the Merced Wild and Scenic River</p>	<p>Watersheds</p> <p>1 North Fork Mokelumne</p> <p>2 Middle Fork Mokelumne</p> <p>3 South Fork Mokelumne</p> <p>4 Calaveras</p> <p>5 Stanislaus</p> <p>6 North Fork Stanislaus</p> <p>7 Middle Fork Stanislaus (low)</p> <p>8 Middle Fork Stanislaus (up)</p> <p>9 South Fork Stanislaus</p> <p>10 Tuolumne</p> <p>11 North Fork Tuolumne</p> <p>12 Clavey</p> <p>13 Cherry Creek</p> <p>14 Middle Fork Tuolumne</p> <p>15 South Fork Tuolumne</p> <p>16 Merced</p> <p>17 North Fork Merced</p>
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Table 2: **Monitoring and Evaluation Results, Conclusions and Recommendations**; fiscal year 1997; 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						9, 10	
2 Cultural Resource	2-1	Cumulative effects; mitigation						9	
3 Diversity	3-1	Acres major vegetative type*						4, 9 (10 year report item)	
	3-2	Acres forest seral stage*						4, 9 (10 year report item)	
	3-A	Vegetation treatments						1 (report by project)	
4 Fire and Fuels	4-1	Acre control objectives						8a	
	4-A	Fuel treatments						9	
5 Fish and Wildlife	5-1	Wildlife: vegetation diversity*						8b (cover in 3-1), (10 year report item)	
	5-2	Wildlife: special habitat						9	
	5-3	Wildlife: riparian areas						9	
	5-4	Wildlife: stream ecosystems						9, 10	
	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						1
	Bald Eagle	5-15	Population status and trend						1
		5-16	Condition of recovery habitat						5 (review territories), 10
	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		Sierra Nevada Red Fox						9	
5-C		Western Pond Turtle						9	
	5-D	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 1997; 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						8b (cover in 9-4)
	9-3	Allotment management						8b (cover in 9-4)
	9-4	Administration and compliance						9, 10
	9-5	Range improvements						8b (cover in 9-4)
	9-A	Noxious Weeds						9, 10
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						10
	10-5	Effects of OHVs						9 (1998 Motor Vehicle Amendment supercedes)
11 Riparian Areas	11-1	Riparian maintained/improved						2, 9
12 Sensitive Plants	12-1	Selected populations						9, 10
	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	Effects of OHVs						8b (1998 Motor Vehicle Amendment supercedes)
	13-5	Soil resource improvements						10
	13-6	Soil moisture regime						9
	13-7	Soil hydrologic function						9
	13-8	Soil environmental health						9
14 Special Areas	14-1	Botanic SIA conditions*						9, 10 (10 year report item)
	14-2	Cultural SIA conditions						9, 10
	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						8a
	15-7	Burn area reforestation						8a
	15-8	Yield table projections*						8b (feasible only at larger than Forest scale)
	15-9	Timber stand improvements						9
	15-A	Herbicides						1 (report by project)

Table 2: **Monitoring and Evaluation Results, Conclusions and Recommendations**; fiscal year 1997; 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 Rivers	19-1	Wild and Scenic management						10
	19-A	Wild and Scenic River values						9
20 Wilderness	20-1	Wilderness management						4, 9
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						9, 10






Legend

Key

- 19-1 Forest Plan Item
- 19 Resource Number
- 1 Item Number
- * 10 Year Report Item
- 19-A Non-Forest Plan Item
- 19 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
- OHVs** Off-Highway Vehicles
- 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.

Action	Who	When
Improve application of prescriptions: 11-1 Riparian maintained/improved 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 status and trend 20-1 Emigrant Wilderness Direction	Resource Management Staff Resource Management Staff Resource Management Staff Resource Management Staff Summit District Ranger	pending 5 year review pending 5 year review pending 5 year review pending 5 year review 9/30/98
Amend Forest Plan Management Area Allocation: 5-16 Bald Eagle designated recovery habitat	Resource Management Staff	pending 5 year review
Amend Forest Plan Monitoring Items	Land Management Planning	9/30/98
Complete 5 year Forest Plan Review	IDT and Forest Leadership Team	9/30/98
Amend Forest Plan Chapter V	IDT and Forest Leadership Team	pending 5 year review
Increase monitoring and/or documentation 1-3 Air pollution 5-4 Wildlife: stream ecosystems 5-5 Spotted Owl S&Gs for habitat 5-6 Spotted Owl Population and habitat trend 5-8 Goshawk S&Gs for habitat 5-9 Goshawk Population trend 5-10 Flycatcher Population status and trend 5-11 Flycatcher S&Gs for habitat 5-12 Great Gray Owl Population status and trend 5-13 Great Gray Owl S&Gs for habitat 5-16 Bald Eagle (wintering) recovery habitat 9-1 Range condition and trend 9-4 Range administration and compliance 10-4 Condition of dispersed camping 12-1 Sensitive plant selected populations 13-5 Soil resource improvements 14-1 Botanic SIA conditions 14-2 Cultural SIA conditions 19-1 Wild and Scenic management (Tuolumne) 22-1 S&Gs reviews	District Rangers	on-going
Incorporate monitoring into Program of Work	Forest Leadership Team	10/1 annual
Conduct Forest Plan S&Gs reviews	Forest Leadership Team	at least 2 per year