United States
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Forest
Service

**Southwestern
Region**

Monitoring and Evaluation Report FY 2004

Coronado National Forest

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Executive Summary

The current Land Management Plan (LMP) for the Coronado National Forest (CNF) was completed in 1986. The LMP defines the direction for managing the CNF for 10 to 15 years. The LMP has been amended eleven times, and three Change Notices have been issued, most recently in 2005. Revision of the LMP is scheduled to begin in 2005.

This annual monitoring report is required by the Plan. This report identifies potential changes in standards and guidelines, and makes recommendations for plan amendments or revisions. Highlights of the report include the following.

Recreation use satisfaction results from the comment cards and the NVUM Project cannot be compared with statistically valid trend results because of the differences in methodology. The opportunity to analyze trends in visitor satisfaction will come when the Coronado NF conducts the next cycle of the NVUM Project in FY 2007.

A forest-wide summary and analysis of Management Indicator Species (MIS) monitoring was completed in 2005 and indicates that some MIS are not reliable indicators of the effects of Forest management while others are impractical to monitor. A more reliable and practical set of MIS are needed.

Range condition and trend is generally upward and changes in the LMP are not needed. Permitted Use is down from 1987. As with recreation, the plan should be changed to reflect current systems used for tracking resource data and program accomplishments.

No trend was detected in the riparian areas monitored.

Insect populations have declined after killing many acres of trees over the past 4 years. Other insect populations have been observed in some areas; fires could cause some populations to increase.

Monitoring of cultural resources has been effective in determining effects of individual projects, but funding is lacking for monitoring Forest-wide trends. Because of tight scheduling and competing priorities, it has become difficult to respond to reports of vandalism. Increased monitoring is needed to meet LMP objectives, and meet responsibilities created by partnerships with Native American tribes. Protective measures should be addressed in the Plan update.

Both Management Attainment Report (MAR) items and cost accounting have changed in the past 4 years. The LMP should reflect these changes. The trend is static for overall budget appropriated funds.

Certification

The Coronado National Forest's Land and Resource Management Plan was approved August 4, 1986. Since that date, there have been eleven amendments and three change notices made to the Plan.

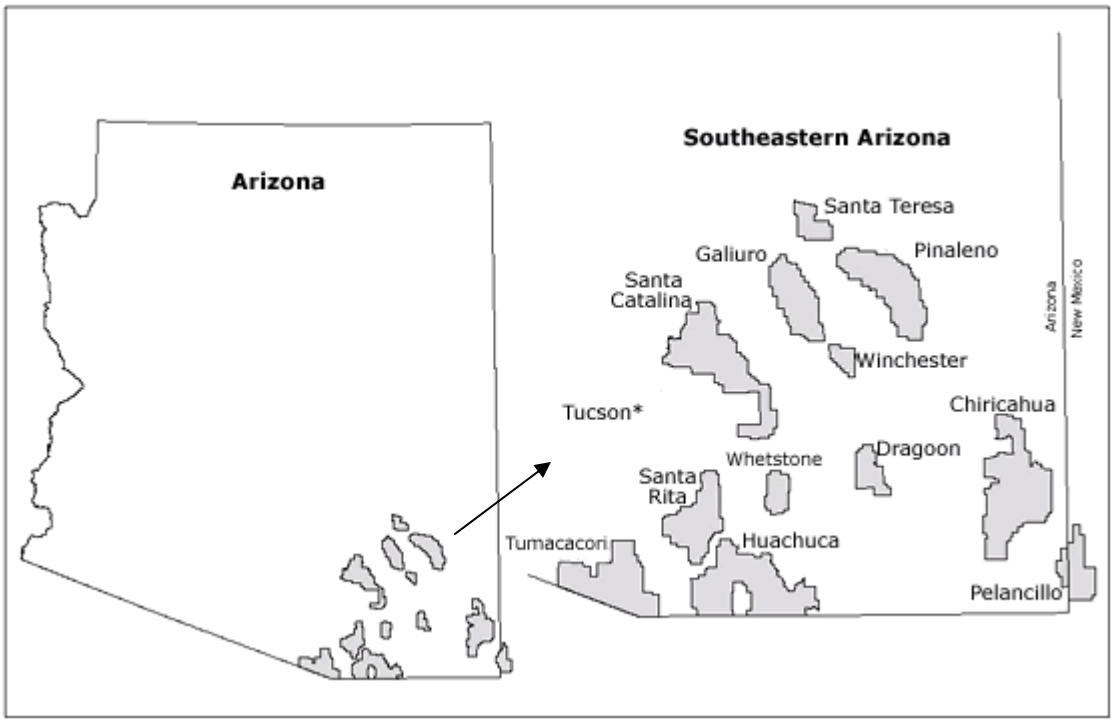
I have reviewed the annual Monitoring and Evaluation report for the Coronado National Forest for Fiscal Year 2004. I have reviewed the recommendations for the Coronado National Forest and have assigned appropriate Forest staff for developing change, amendment or revision proposals.

Any amendments or revisions to the Forest Plan will be made using the appropriate National Environmental Policy Act (NEPA) procedures.

Jeanine Derby
Forest Supervisor

_____
Date

Figure 1. Coronado National Forest Vicinity Map



Monitoring on the Coronado National Forest

The Land and Resource Management Plan (Plan) for the Coronado National Forest (CNF) was approved on August 4, 1986. The Plan defined the direction for managing CNF for the next 10-15 years and provided for integrated multiple use and sustained yield of goods and services from the Forest in a way that maximizes long-term net public benefits in an environmentally sound manner (Forest Plan, page 1). This Monitoring and Evaluation Report is based on Chapter 6, Monitoring Plan, in the Forest Plan. Monitoring will help determine:

- If management prescriptions are applied as directed,
- If standards are being followed,
- If the application of management prescriptions is responding to public issues and management concerns,
- If the effects of implementing the Forest Plan are occurring as predicted,
- If the costs of implementing the Forest Plan are as predicted and are acceptable,
- If management practices on adjacent or intermingled non-Forest lands are affecting the Forest Plan goals and objectives.

Three types of monitoring are identified:

- **Implementation Monitoring**: Plans, projects, prescriptions, or activities need to be implemented as they are designed. They also need to comply with Forest Plan objectives, standards and guidelines.
- **Effectiveness Monitoring**: This level of monitoring helps ensure that the plans, projects, prescriptions or activities are effective in meeting management direction, objectives, standards and guidelines.
- **Validation Monitoring**: This helps determine if the initial data, assumptions and coefficients used in the development of the plan are correct or if there is a better way to meet Goals and Objectives and Desired Future Conditions.

Forest Plan Amendments

There have been eleven amendments and three change notices to the Forest Plan. The following identifies the nature of the changes and the corresponding dates.

Amendment No. 1

Modification of standards and guidelines for identifying roads and trails to be part of the transportation system and which will be open or closed to motor vehicles. Decision dated 12/29/86.

Amendment No. 2

Development of a multi-purpose facility by the Smithsonian Institution which will help meet public recreation opportunities on the forest. An area of 14 acres will be managed under direction of Management Area 3A/3B. Decision Notice and FONSI dated 2/2/87.

Amendment No. 3

Minor expansion of the Goodding Research Natural area to include a population of *Phaseolas supinus*. Decision dated 10/13/87.

Amendment No. 4

Revised management direction for the Pinaleno Mountains resulting from the study and decisions for the Mt. Graham Astrophysical Area. Record of Decision dated 1/5/89.

Amendment No. 5

Minor expansion of the Mt. Lemmon Ski area permit boundary to allow for construction of a maintenance facility. Decision Notice and FONSI dated 1/18/90. Amendment was later voided when the decision was withdrawn in response to an appeal.

Change Notice No. 1

Changed several activity schedules contained in the Forest Plan. Also changed fire management standards and guidelines to insure consistency with National policy. Change Notice dated 4/3/91.

Amendment No. 6

Added and modified management direction for cave and cultural resources found on the Forest. Decision Memo dated 12/6/91.

Amendment No. 7

Modified permit boundary of the Mt. Lemmon Ski Area to provide for a maintenance facility and to change the VQO for the Ski area to Modification to be consistent with FSM direction. Record of Decision dated 4/14/92. Also added a section (page 2) to the Forest Plan to list changes that have been made.

Amendment No. 8

Added standards and guidelines for Mexican Spotted Owl, Northern Goshawk, old growth management and range forage utilization per Regional Forester amendment decision. Date: 6/96

Change Notice No. 2

Removed project implementation and vegetation treatment schedules from management direction portion of the Forest Plan (chapter 4). Forest Plans only allow or disallow activities, but make no site-specific project decisions. The implementation schedules were removed because they were being misinterpreted as management direction. Also added standard Regional Vegetation Treatment Table. Date: 6/96

Amendment No. 9

Added Management Area 2B that comprises the Wet Canyon Watershed. The management area was added to increase protection for the Wet Canyon talussnail. The approximate 1220 acres of new Management Area 2B was subtracted from original Management Areas 2 and 4. Date: 7/98

Change Notice No. 3

Added Management Area 15 that reflects the administrative designation of the Chili Botanical Area, but did not change Forest Plan management direction nor alter accomplishment of Forest Plan Goals and Objectives. Date: 6/99

Amendment No. 10

Updated the Forest Plan to reflect the 2001 Federal Wildland Fire Management Policy to provide agency managers the option of wildland fire use in addition to suppression forest-wide.
Date: 6-05

Amendment No. 11

This amendment allows the option to use fire suppression, managed wildfire, and prescribed fire, alone or in combination, within the Peloncillo Ecosystem Management Area.

List of Authors:

Rick Gerhart – Wildlife Biologist

Dan Montez – Budget & Accounting Officer

Margaret VanGilder – Range Program Manager

Bob Lefevre – Hydrologist

Mary Farrell – Forest Archaeologist\Tribal Representative

Jennifer Ruyle – Forest Planner

Terry Austin – GIS\Data Specialist

Requirements of Monitoring

Monitoring and evaluating the Forest Plan keeps the decision maker informed of progress in achieving the goals, objectives, standards and guidelines established in the Forest Plan. A detailed annual monitoring action program is prepared as part of the total Forest annual program of work. Some of the key items to be included in the program are details on the amount and location of monitoring to be accomplished based on the approved program of work and funding available. The program includes specific locations, intensity of sampling, person-days required, and costs for each activity being monitored. Three measurement techniques are applied – frequency, precision and time. The following describes the items to be monitored:

Recreation: This includes dispersed recreation use in Recreation Opportunity Spectrum (ROS) settings, developed site use – both public and private, recreation use satisfaction and condition of developed sites in the public sector.

Wilderness: Wilderness use by Wilderness Opportunity Spectrum (WOS) class.

Wildlife: Population and habitat trends of management indicator species (MIS).

Range: Included are actions being taken to bring unsatisfactory ranges to satisfactory condition, range condition and trend, new or revised range management plans, range development, permitted use, and grazing capacity.

Soil and Water: Productivity and hydrologic functioning of the land as represented by watershed condition ratings.

Riparian: Condition of riparian areas.

Timber and Fuelwood: Insure acres are treated according to the management prescription, cords of fuelwood made available, review maximum size limits for harvest areas to determine whether such size limits should be continued, adequate restocking of timber harvest lands, and re-evaluation of unsuitable timber lands.

Cultural Resources: Avoidance of damage to or loss of cultural resources through ground-disturbing activities, natural erosion, or human vandalism.

Costs: Unit costs, total annual budget, and budget by program component.

Outputs: Management attainment report item.

Monitoring Activities for FY 2004

Recreation 3

Item Monitored: Recreation use satisfaction

Monitoring Method: On-the-ground interviews with recreation users. Twenty sites for one day each.

Results: Recreation use satisfaction results below are from the first cycle (FY 2001) of the National Visitor Use Monitoring (NVUM) Project on the Coronado NF.

The data collected during the project were insufficient to determine site-specific visitor satisfaction; rather, the information is generalized to overall satisfaction with facilities and services in each of the following four site types on the Forest: Wilderness, Day Use sites, Developed Overnight sites, and General Forest areas.

The four tables on the following pages are taken from the Coronado NF's 2001 NVUM Report. Table 11 summarizes the satisfaction of Wilderness visitors. Tables 16, 17 and 18 summarize visitor satisfaction with the facilities and services at Day Use sites, Overnight Developed sites and General Forest areas.

On a scale of 1.0 (worst) to 5.0 (best), the mean satisfaction of visitors at Wilderness, Developed Overnight, and Day Use site types was 3.2 or better for all fourteen items visitors were asked to rate. General Forest Areas as a whole were rated at 3.3 or better on all but two items, "parking lot condition" and "value for fee paid," which were rated at 2.4 and 2.7, respectively.

Evaluation: Monitoring plan direction is to compare user perception with projected use and satisfaction. If 30% or more of responses are below satisfaction level anticipated, evaluate.

The Forest Plan's monitoring chapter needs to be revised to incorporate the use of NVUM as a monitoring tool for recreation use satisfaction.

Trend analysis: Written comment cards have provided site-specific information on visitor satisfaction for several years. However, results from the comment cards and the NVUM Project cannot be compared with statistically valid trend results because of the differences in methodology. The opportunity to analyze trends in visitor satisfaction will come when the Coronado NF conducts the next cycle of the NVUM Project in FY 2007.

Table 1. Satisfaction of Coronado NF Wilderness visitors

Item Name	Item by Percent response By *					Mean ** Satisfaction Of Visitors (n)		Mean ** Importance To Visitors (n)	
	P	F	A	G	VG				
Scenery	0.0	0.0	0.0	5.5	94.5	4.9	96	4.8	93
Available parking	0.7	2.3	6.8	26.9	63.4	4.5	81	4.0	78
Parking lot condition	1.9	4.6	11.0	33.1	49.5	4.2	77	3.4	76
Cleanliness of restrooms	9.2	20.2	20.6	39.1	10.9	3.2	31	4.1	39
Condition of the natural environment	1.5	0.0	3.6	15.5	79.3	4.7	96	4.9	92
Condition of developed recreation facilities	0.0	0.0	7.3	42.6	50.2	4.4	33	3.6	45
Condition of forest roads	1.2	2.7	9.9	47.3	38.8	4.2	37	3.6	39
Condition of forest trails	0.6	7.0	6.4	42.7	43.3	4.2	95	4.4	92
Availability of information on recreation	3.7	1.6	14.3	31.7	48.8	4.2	82	3.8	81
Feeling of safety	1.5	0.0	0.9	15.0	82.6	4.8	95	4.5	92
Adequacy of signage	3.0	0.6	14.6	35.1	46.8	4.2	96	4.2	92
Helpfulness of employees	0.0	0.0	2.2	10.2	87.6	4.9	56	3.8	76
Attractiveness of the forest landscape	0.0	0.0	3.4	2.2	94.3	4.9	95	4.9	93
Value for fee paid	0.0	5.0	1.8	11.6	81.6	4.7	27	4.7	41

* Scale is: P = poor F = fair A= average G = good VG= very good
** Scale is: 1= not important 2= somewhat important 3=moderately important 4= important 5 = very important
(n) = number of responses upon which this rating is based

Table 2. Satisfaction of Coronado NF recreation visitors at Day Use sites

Item Name	Item by Percent response By *					Mean Satisfaction Of Visitors (n)		Mean Importance To Visitors (n)	
	P	F	A	G	VG				
Scenery	0.7	0	0.8	8.3	90.1	4.9	71	4.7	62
Available parking	0.4	2.2	18.1	22	57.4	4.3	71	3.9	61
Parking lot condition	0.0	2.9	12.6	42.2	42.3	4.2	69	3.4	58
Cleanliness of restrooms	7.4	9.1	7.9	39.4	36.3	3.9	53	4.1	56
Condition of the natural environment	0.0	0.0	2.5	23.2	74.2	4.7	71	4.8	62
Condition of developed recreation facilities	0.3	0.8	5.9	59.2	33.8	4.3	61	4.0	57
Condition of forest roads	0.0	7.9	12.6	54.3	25.2	4.0	53	3.8	50
Condition of forest trails	0.0	0.0	10.7	48.0	41.2	4.3	52	4.3	50
Availability of information on recreation	0.0	9.2	3.9	36.7	50.3	4.3	60	4.1	54
Feeling of safety	0.0	0.0	4.2	17.8	78.1	4.7	70	4.4	61
Adequacy of signage	0.0	3.5	5.0	47.1	44.4	4.3	67	4.2	59
Helpfulness of employees	0.0	0.0	0.6	21.2	78.2	4.8	62	4.4	57
Attractiveness of the forest landscape	0.0	0.7	0.0	14.1	85.3	4.8	71	4.8	60
Value for fee paid	0.5	3.3	7.5	17.6	71.1	4.6	45	4.2	44

Table 3. Satisfaction of Coronado NF recreation visitors at Developed Overnight sites

Item Name	Item by Percent response By *					Mean Satisfaction Of Visitors (n)		Mean Importance To Visitors (n)	
	P	F	A	G	VG				
Scenery	0.0	0.0	3.6	27.6	68.8	4.7	60	4.9	56
Available parking	0.1	0.3	2.9	50.1	46.7	4.4	59	3.6	52
Parking lot condition	0.0	1.4	0.3	71.0	27.3	4.2	56	3.1	50
Cleanliness of restrooms	0.1	4.4	2.9	63.5	29.0	4.2	53	4.1	52
Condition of the natural environment	0.0	0.0	0.1	34.9	64.9	4.6	60	4.8	55
Condition of developed recreation facilities	0.0	19.5	7.5	34.2	38.9	3.9	58	4.4	53
Condition of forest roads	20.6	0.3	12.7	59.8	6.5	3.3	59	4.2	56
Condition of forest trails	0.0	0.2	0.3	63.0	36.5	4.4	37	3.0	42
Availability of information on recreation	0.1	0.4	4.1	67.0	28.4	4.2	45	3.7	46
Feeling of safety	0.0	3.6	1.8	37.8	56.8	4.5	59	4.6	54
Adequacy of signage	2.8	0.2	1.6	60.3	35.1	4.2	59	4.0	53
Helpfulness of employees	0.0	0.0	0.3	35.2	64.6	4.6	43	4.6	43
Attractiveness of the forest landscape	0.0	0.0	0.1	14.2	85.7	4.9	60	4.6	58
Value for fee paid	0.0	18.1	19.5	23.1	39.4	3.8	46	4.3	46

Table 4. Satisfaction of Coronado NF recreation visitors in General Forest Areas

Item Name	Item by Percent response By *					Mean Satisfaction Of Visitors (n)		Mean Importance To Visitors (n)	
	P	F	A	G	VG				
Scenery	0.0	1.5	0.8	11	86.7	4.8	61	4.7	60
Available parking	26.3	2.9	5.7	16.6	48.5	3.6	52	2.5	52
Parking lot condition	54.8	2.4	11.2	14.6	17.1	2.4	47	2.2	49
Cleanliness of restrooms	0.0	1.2	12.5	45.2	41.1	4.3	31	2.9	40
Condition of the natural environment	0.7	4.0	9.9	13.7	71.8	4.5	60	4.7	58
Condition of developed recreation facilities	0.0	1.3	16.6	21.0	61.1	4.4	40	2.7	44
Condition of forest roads	13.3	6.5	40.4	14.4	25.4	3.3	50	4.3	52
Condition of forest trails	1.8	0.5	11.7	48.7	37.2	4.2	45	3.2	49
Availability of information on recreation	23.8	11.4	4.5	12.9	47.4	3.5	49	3.3	52
Feeling of safety	0.8	4.1	2.5	54.8	37.8	4.2	60	4.7	57
Adequacy of signage	3.2	7.2	14.8	18.0	56.8	4.2	60	4.1	59
Helpfulness of employees	0.0	0.6	3.1	21.0	75.3	4.7	52	3.6	54
Attractiveness of the forest landscape	0.0	0.0	2.5	19.1	78.4	4.8	62	4.7	59
Value for fee paid	29.9	31.1	5.2	2.0	31.8	2.7	31	4.2	36

Wildlife

Item Monitored: Population & habitat trends for Management Indicator Species

See MIS Report (separate document).

Range 2

Item Monitored: Condition & trend

Monitoring Method: Range Analysis

Results: The following allotments had upland condition studies completed:

Douglas District: Lower Rucker, Willie Rose, Maverick, Jackwood, Price Canyon, Rak
Nogales District: Jarillas, Fresnal, Cross S, Carrizo, Oro Blanco, Sardina

Sierra Vista: U-D, O'Donnell, Sawtelle, Post Canyon, Sycamore, Miller Canyon, Santa Cruz, Alisos, Sierra Tordilla, Oak Bar, Harshaw, Farrell, McFarland, Lewis, Weiland, Papago, Kunde, Seibold, Crittenden, San Rafael, Lyle Canyon, HQ, Campini, Blacktail.

Safford District: Bass Canyon, Bonita, Bottle Canyon, Bull Tank, Copper Creek, Deer Creek, Harrison Canyon, High Creek, North Ash, Paddy's River, Polecat, South Ash, Squaw Basin, Stockton Pass, Sunset, Wear, Willow Creek, YLE

Santa Catalina: none

Evaluation: Monitoring Plan does not need to be changed.

Trend analysis: Trend is generally up from previous studies.

Range 3

Item Monitored: Range Management Plans

Monitoring Method: PAMARS

Results: 4 new range management plans were successfully completed and implemented (i.e., made it through the appeals process)

Sierra Vista – Seibold, Crittenden, Papago, Kunde

Evaluation: Monitoring Plan needs to be changed. PAMARS is no longer in use.

Trend analysis: N/A

Range 4

Item Monitored: Range development

Monitoring Method: PAMARS, Grazing Statistical Report

Results: The following range improvement projects were completed:

Douglas

- Middlemarch: 2500 trick tank with 500 feet of pipe
- Tex Canyon: 2500' pipeline extension to 3000 gal. storage & trough; reconstructed Red Hill and Divide dams

- Price Canyon: reconstructed 2.5 mi. boundary fence
- Bruno: 1500’ pipeline extension with trough
- Horseshoe: ½ mile boundary fence
- Hunt: Limestone Mtn. Trick Tank apron
-

Nogales

- Marstellar: 3.5 miles Walker fence reconstruction
- Thurber: East Flat pipeline and drinker reconstruction; 50’ pipeline and new drinker
- Temporal: Cooperative water improvement with AZ Game & Fish; 3 miles pipeline, replace storage tank, install 2 drinkers & 2 new float boxes
- Sardina: deepen Apache Well 100’, replace storage tank, solar panels, pump
- Pena Blanca: Reconstruct Bull Springs, 50’ new pipe & new drinker
- Calabasas: 2 cattleguards
- Montana: ½ mile fence construction, cattle guard; 500 yards new fence around tank
- Potrero Pipeline reconstruction, 1/2 mile of pipeline replaced and buried.
- Reconstruct Leone Spring, 50 feet replaced pipe and spring box cleaned and repaired.

Sierra Vista

- Lone Mtn: Scotia Fence Realignment, 2.5 mi; Peterson Pipeline 2.5 mi; Heifer Pipeline extension 2 mi; Peterson/Upper Joaquin Fence reconstruction 1.5 mi;
- U-D: North Well Solar pump
- O'Donnell: Western Well (drilled); O'Donnell/Post/Papago ABF Fence reconstruction 3.5 mi;
- Hayfield: Hayfield/Duquesne AB Fence reconstruction 6 mi;
- Papago: Lampshire/Pinto fence reconstruction 1.5 mi; Z-triangle pipeline reconstruction 1.25 mi; West Mtn fence reconstruction 1.5 mi; general fence repairs 2.5 mi; Z-Triangle/Audubon fence reconstruction 1.5 mi
- Duquesne: L&J/Harristeen/House Trap fence reconstruction 1 mi
- Farrell: Big Canyon/Best House Fence reconstruction .5 mi
- Lyle Canyon: Harkey Pipeline 1mi; Hawkeye Pipeline1 mi, Tom’s Corner Storage; Oso Negro Well and Storage
- San Rafael: Cleaned Antelope and Bog Hole Tanks;
- Miller Canyon: Miller/Carr ABF repair .25 mi
- Chuney: Allotment boundary fence replacement 3 mi
- Manila: Install 2 troughs off Harkey Pipeline in Center Pasture
- Crittenden: 1.0 mile fence exclosure around Corral Spring; 2.5 mile pipeline extension & 3 troughs

Safford

- Bonita: 5 mi. boundary fence
- Deer Creek: 1.5 mi. boundary fence
- Four Mile/Squaw Basin: 1 mi. boundary fence
- Stockton Pass: 1.5 mi. pipeline
- Ten/Stockton Pass: 1 mi. boundary fence
- VJ: 1.5 mi. boundary fence
- Jakes/VJ: ½ mi. boundary fence

Santa Catalina

- 9 mi. fence reconstruction
- 3 mi. pipeline replacement
- Cleaned 2 stock tanks
- Reconstructed 3 spring developments
- Replaced on windmill

Evaluation: Monitoring Plan needs to be changed. PAMARS is no longer in use.

Trend analysis: N/A

Range 5

Item Monitored: Permitted use

Monitoring Method: Permits, Grazing Statistical Report

Results:

Cattle HMs permitted to graze	285,626
Cattle HMs paid permits	144,360
Horse HMs permitted to graze	846
Horse HMs paid permits	831

Evaluation: No change in Forest Plan is needed.

Trend analysis: The trend in permitted use is down from 1987.

Range 6

Item Monitored: Grazing capacity

Monitoring Method: Grazing Statistical Report

Results: Production/utilization studies were conducted on the following allotments:

Douglas: Maverick, Geronimo, Robertson, Clanton/Cloverdale, Price Canyon, Jackwood, Guadalupe

Nogales: None

Sierra Vista: Oak Bar, Santa Cruz, Alisos, Sierra Tordilla

Safford: Black Rock, Cedar Springs, Foster, Gillespie, Gillman, Grant Creek, Hawk Hollow, Jakes, Kane Springs, Laurel Canyon, Marijilda, North Reef, O Bar O, O Bar O Canyon, Redtail, Rocky, Rockhouse, San Pedro, Seventy Six, Shingle Mill, Sombrero Butte, South Goodwin, South Reef, Ten, Two Trough, Veach, VJ, White Streaks

Santa Catalina: None

Evaluation: Forest Plan may not need to be changed but capacity estimates are not always quantitatively determined during range analysis. Grazing capacities are down from 1996 due to weather conditions and regulatory requirements and may below the anticipated capacity in the Forest Plan.

Trend analysis: N/A

Riparian

Item Monitored: Condition of Riparian Areas

Monitoring Method: Proper Functioning Condition

Results: Sabino Creek and Canada del Oro were monitored. They were found to be functional at risk. The Aspen Fire had caused great changes in the vegetation and channel configuration, but long term recovery is anticipated.

Evaluation: **N/A**

Trend analysis: **N/A**

Protection 2

Item Monitored: Determine that destructive insects and disease organisms do not increase to potentially damaging levels following management activities.

Monitoring Method: Aerial surveys, ground checks

Results: Spruce bark beetle (Pinaleno Mountains) and pine bark beetle (Forest-wide) populations have declined after killing many acres of trees over the past 4 years. Cypress Beetles were observed to be active in the Dragoon Mountains. Douglas-fir beetle damage has not been widely observed, but a population explosion could be triggered by the fires in old growth Douglas-fire stands.

Evaluation: A project to protect mature Douglas-fir trees near Mt. Graham Red Squirrel middens has been proposed**.** This project would use MCH to repel insects.

Trend analysis: N/A

Protection 3

Item Monitored: Air Quality

Monitoring Method: Automated Camera

Results: None Conducted

Evaluation: N/A

Trend analysis: N/A

Timber & Fuelwood 4

Item Monitored: Restocking

Monitoring Method: Sampling of timber sale areas

Results: No Timber Sales were made during the monitoring period.

Evaluation: If samples indicate inadequate stocking, i.e., less than minimum stocking on 80% of the sampled areas, an evaluation by the ID team will be made. The plan needs to be changed. Vegetation manipulation tables have been removed from the Plan.

Trend analysis: N/A

Cultural Resources

Item Monitored: Avoidance of damage to or loss of cultural resources through ground-disturbing activities.

Monitoring Method: Field inspection

Results: Field inspection to determine project effects in FY2004 focused on wildfire suppression and rehabilitation, particularly with the Nuttall Wildfire Complex on Safford Ranger District

Evaluation: Monitoring, where it has occurred, has been effective in determining project effects, and in identifying other effects on sites. However, as in previous years, funding has been insufficient in many cases to conduct an adequate level of inspection, and to document the results

Monitoring will be increasingly important not only for the revision of the Forest Plan, but also to be responsive to the Native American Tribes with whom we consult under the National Historic Preservation Act.

Trend analysis: In 2004 the percentage of projects inspected decreased from FY 2003, due to a severe fire season and overall declining funding. In some cases recommendations for monitoring were integrated into project planning, but not implemented because of changes in project scheduling. As mentioned above, this trend must be reversed, because monitoring becomes increasingly important as the Region implements the revised Programmatic Agreement, to insure historic resources are being protected as planned, and to maintain our credibility with the State Historic Preservation Officer, tribes, and the public.

Cultural Resources 2

Item Monitored: Loss or damage to cultural resources through natural erosion or human vandalism

Monitoring Method: Field inspection

Results: Cultural resources are routinely inspected for vandalism and natural erosion in two ways: (1) through the Arizona Site Steward Program, in which volunteers inspect designated sites on a regular basis; and (2) by Forest Service archaeologists and para-archaeologists in the course of Deferred Maintenance inspections or other field work. In addition, Forest Service archaeologists and law enforcement personnel attempt to inspect sites when recent vandalism is reported by the public or site stewards. Approximately 95 sites are monitored by the Site Stewards, 53 sites were inspected during project fieldwork by Forest Service heritage program personnel. This included 16 sites inspected in the aftermath of the Nuttall Fire, 10 sites inspected as part of planning phase for the San Rafael Manzanita Project. Vandalism was reported at Marijilda Canyon Prehistoric Archaeological District and the Oak Draw Archaeological District, both listed on the National Register of Historic Places.

Evaluation: Vandalism appears to be continuing at previous levels or slightly lower. One report of new vandalism (at Romero Ruin) was made by Arizona Site Stewards in FY 2004. One damage assessment (Romero Ruin) and two site-stabilization projects to repair recent vandalism (Romero Ruin and Pena Blanca Rock Art Site) were performed during FY2004. None of the vandalism could be attributed to any individuals or prosecuted in court. In FY 2004 we continued the process of re-recording and re-evaluating some of the sites in the Site Steward program, since in some cases the sites on the ground do not match the site records. Coordination with the Arizona Site Stewards to protect the many vulnerable sites on the Coronado may be appropriate for IMPP funds

Trend analysis: Because of tight scheduling and competing priorities, it has become difficult to respond to reports of vandalism, and in few cases do we prepare the damage assessment report required by Forest Service Manual direction. The potential loss to cultural resources is significant, and protective measures should be addressed in the Plan update.

Costs 1

Item Monitored: Unit costs

Monitoring Method: Annual PAMARS reporting system

Results: Management Attainment Report (MAR)/Performance Accountability Report (PAR) items have changed dramatically throughout the year. Changes are the result of decreasing budgets and newer National and Regional priorities which attempt to respond to changed conditions in fire and fuels management.

Evaluation: Unit cost comparisons were reviewed in conjunction with the MAR/PAR report. The MAR/PAR report identifies outputs consistent with primary purpose principles.

Trend analysis: Unit costs have increased and outputs have decreased for some. Outputs by more than 20% but do not meet the 20% threshold overall.

Standards and Guidelines

Item Monitored: Plan Implementation

Method: Review of District Management Reviews, Program Reviews and Activity Reviews.

Results: The measure of Plan implementation was approximated by sampling National Environmental Policy Act (NEPA) decisions over a period from 1997 to 2005. The bulk of NEPA analysis over this period was associated with the Grazing Management program, with the highest number of Environmental Assessments (EA) with Findings of No Significant Impacts (FONSI), 51, all of which were associated with approval of allotment management plans. Over this time period there was not a consistent trend in the numbers of allotment management plan decisions made. Rather, decisions were concentrated in 1997 (16) and in 2003 (14). The next highest year was 2005, with seven decisions made. The highest number of projects requiring Categorical Exclusions (CE) (over 800) was also associated with the Grazing Management program. These were concentrated in 1998 and 1999, then again in 2004 and 2005. It is probable that these projects were associated with allotment management plans approved in 1997 and 2003, respectively.

The next highest category of NEPA decisions made was associated with special use permits. Only three of these decisions required Environmental Assessments, one of which was reversed on appeal. The number of categorical exclusions for special use permits increased dramatically in 2003-2005. This may reflect improved compliance with NEPA and better documentation and record keeping.

NEPA documentation for projects associated with the Recreation program included two Environmental Assessments completed in 2000. Most projects were CEs, with the bulk of documentation occurring in 2000 and 2004.

Wildlife program NEPA documentation during the sampling period was all CEs. The highest number of documents (78) was prepared in 2000. Other than that year, the trend in numbers of documents is stable, with around 35 documents prepared each year.

Fuels management projects are mostly covered by CEs. Sampling of decisions indicated that from one to eleven CEs are done each year. This number will probably increase in the future as projects that restore fire to its natural role in the ecosystem are funded.

Environmental Assessments and FONSIs for an ecosystem restoration project, a noxious weed management, trailhead construction, several land exchanges, and two Forest Plan amendments were prepared during the sampling period. Other categories of projects accomplished under CEs include forest products, road reconstruction, mine closures and mineral materials.

Twenty decisions made between 1997 and 2005 were appealed. Forty six appeals were received (typically more than one appellant per project). Of these, 12 appeals were dismissed, decisions were affirmed in 27 cases, and decisions were reversed in seven cases (four projects).

Trend analysis: in results section above

Outputs

Item monitored: MAR/PAR items

Monitoring Method: MAR

Results: The MAR/PAR report provides a clear list of expected target accomplishments by program resource area in the annual Budget Allocation Advice from the Region. The changes to the MAR/PAR report respond to changing budget dollar and output allocation methods as the result of the Budget Formulation and Execution System (BFES). MAR/PAR accomplishments generally do not fall within the range of implementation.

Evaluation: Need to change the Forest Plan.

Trend analysis: Some individual program components have had significant increases and decreases from the annual average. The overall trend of funds appears to be decreasing in total. Changes reflect National and Regional priorities and changed conditions emphasized on the ground.