

## **APPENDIX A**

### **Proposed Forest Plan Amendment**

# **PRESCOTT NATIONAL FOREST**

## **PROPOSED ACTION:**

### **FOREST PLAN AMENDMENT**

**November 2001**

**Prescott National Forest  
344 South Cortez Street  
Prescott, Arizona 86303**

**(928) 771-4700**

## PROPOSED ACTION

The following section displays proposed deletions to the current Forest Plan as strike-through text. Proposed additions are shown in italics. All other text will remain unchanged. Standards are shown in bold text and guidelines are shown in plain text.

### **FUELWOOD MANAGEMENT**

New goals, standards and guidelines will be added to the Prescott Forest Plan, and existing direction for the Forest fuelwood program will be modified or deleted to emphasize the use of fuelwood harvest as a tool for resource management within a comprehensive ecological approach.

#### **Forest Goals – Current Plan**

~~Provide green and dead fuelwood and other forest products on a sustained yield basis.~~

#### **As amended:**

*The fuelwood sale and harvest program will be used as a tool to accomplish and complement multiple ecosystem objectives.*

#### **Standards and Guidelines, all Management Areas – Current Plan**

Environmental analysis for timber/fuelwood sales will:

- a. establish harvest objectives
- b. establish access alternatives which ~~disclose soil loss and stability figures for each~~
- ~~c. establish why non timber values are needed~~
- d. demonstrate why timber harvest is the best means of meeting the objectives
- e. explore other means of meeting objectives

Provide public information on the availability of fuelwood and the limits of its supply.

~~Complement enforcement of county leash laws through public education and use of permit requirements for fuelwood harvest.~~

~~Fuelwood harvest planning will include provisions for road closure. Funding will be collected or programmed as required to effect closures of temporary roads.~~

~~The Forest will continue the present fuelwood season as established. (Yearlong, subject to weather conditions)~~

~~Fuelwood harvest from areas requiring structural measures to control erosion will focus upon long term stability of the soil and not the production of wood fiber or range forage.~~

**As amended:**

**Environmental Analysis for timber/fuelwood sales will:**

- a. establish harvest objectives
- b. establish access alternatives which *meet standard management practices*
- c. demonstrate why harvest is the best means of meeting the objectives
- d. explore other means of meeting objectives

*Address road management issues as needed during fuelwood harvest planning.*

*Dead portions of live trees shall not be removed for fuelwood.*

*The availability of fuelwood within an area should be determined following analysis of resource issues and needs.*

*Standards and guidelines for management of the Mexican spotted owl and the northern goshawk are shown in Appendices F and G.*

*The minimum criteria for the structural attributes used to determine late successional stages (old growth) are shown in Appendix H.*

### **Management Area 1 – Checkerboard Lands - Current Plan**

~~Dead and down fuelwood will be available from pinyon/juniper, juniper and timber slash.~~

**As Amended:**

*Green fuelwood harvest will be used as a tool to accomplish wildlife habitat, watershed and ecosystem health management objectives.*

### **Management Area 2 – Woodland - Current Plan**

Treatments in the 934 acres of managed timber will complement the emphasis on wildlife habitat management and provide fuelwood from logging slash.

**As Amended:**

*Timber management treatments will emphasize wildlife habitat and provide fuelwood from logging debris.*

### **Management Area 3 - Current Plan**

~~There will be some green and dead fuelwood harvested in the P/J type.~~

**As Amended:**

*Fuelwood will be harvested from the Pinyon/Juniper type with emphasis on enhancement of wildlife habitat and watershed condition.*

**Management Area 4 – Pine - Current Plan**

~~Fuelwood will be obtained from timber slash, green, and dead pinyon/juniper.~~

**As Amended:**

**Fuelwood will be obtained from *logging debris, and from green and dead woodland species.***

**Management Area 5 – Desert Grasslands - Current Plan**

~~Green and dead fuelwood will be harvested from the juniper vegetation types with emphasis on enhancement of wildlife habitat.~~

**As Amended:**

**Green and dead fuelwood will be harvested from the *woodland* vegetation type with emphasis on enhancement of wildlife habitat *and watershed condition.***

**Management Area 7 – Recreation - Current Plan**

~~There will be some personal use fuelwood available from pine slash, as well as some green and dead fuelwood from the juniper lands.~~

**As Amended:**

No replacement language.

**Appendix E – Proposed Plan Outputs Per Year (Period 1 Average) - Current Plan**

Fuelwood - MBF – 3401

**As Amended:**

Same as the current Plan.

**WILDLAND FIRE USE**

New goals and standards and guidelines for Fire Management will be added to the Prescott Forest Plan and some existing direction will be modified or deleted. The amendment language will be consistent with the 1995 Federal Wildland Management Policy, particularly with regard to wildland fire use. Wildland fire use is defined as “the management of naturally ignited

wildland fires to accomplish specific pre-stated resource management objectives in predefined geographic areas.” Wildland fire use management direction will be implemented within areas of the Prescott National Forest shown on the attached map in Appendix M (*Prescott National Forest, Wildland Fire Use Locations*).

### **Forest Goals – Current Plan**

~~Provide for fire management support services necessary to sustain resource yields while protecting improvements, investments, and providing for public safety.~~

~~In as much as possible, return fire to its natural role in the ecosystem.~~

#### **As Amended:**

*The fire interval, behavior and effects associated with the historic fire regime are returned to the landscape where feasible (See Appendix L, Fire Regimes).*

*When and where appropriate, ecosystem objectives are met through the use of prescribed fire and wildland fires used for resource benefits.*

### **Standards and Guidelines, Forest-wide – Current Plan**

#### **FIRE MANAGEMENT**

~~Continue fire management planning (i.e., budget analysis, preattack, prevention, smoke management, mobilization, fire management area plans, etc.)~~

~~Fire prevention activities including smoking, campfire, and powersaw restrictions, hoot owl shifts, and area closures will be implemented according to Prescott Fire Prevention Plan.~~

~~Provide for wildfire detection.~~

~~Protect life and property from wildfire.~~

~~Train and maintain forces held in reserve for support to initial attack or as reinforcements on escaped fires (Hotshot crews and special equipment).~~

~~Maintain fire support services (dispatch, cache, communications, etc.).~~

~~Continue fuels management inventory through the preattack planning process.~~

~~Treat activity created fuels to meet initial attack objectives. Fuelwood utilization is a major emphasis to reduce forest residues.~~

~~Activity and natural fuels are treated by, lopping and scattering, crushing, smashing, chipping, and prescribed broadcast burning.~~

~~The maximum number of fires larger than 10 acres will not exceed the Forest's capability to manage up to a limit of 5000 acres of prescribed live fire at any one time.~~

~~Fuelbreaks are constructed and maintained by mechanical treatment and/or prescribed fire.~~

~~Maintain agreements with cooperating agencies.~~

~~Examine the possibility of prescribing fire to more readily relate to naturally occurring fire periods.~~

### **As Amended:**

#### **WILDLAND FIRE**

*Firefighter and public safety shall be the first priority in all Fire Management activities.*

*All human-caused fires shall be suppressed using appropriate suppression response strategies.*

*Wildland fire suppression responses shall minimize costs of suppression, resource impacts and risks to life and property.*

*Fire prevention messages should emphasize the difference between unwanted human-caused fires, lightning-caused fires managed for resource benefits and prescribed fires.*

*Prevention and preparedness activities should be designed and implemented following a comprehensive analysis of fire occurrence, resistance to control, values at risk and other factors.*

*The appropriate management response for each wildland fire will vary across the Forest and should include the full spectrum of options from aggressive initial attack to managing fires to accomplish resource objectives.*

*For all management areas (except Area 7, Recreation), lightning-caused fire should be managed to restore fire's natural role in maintaining a healthy, diverse and resilient ecosystem resistant to natural disturbances. Wildland fire use should follow direction specific to the Forest's Fire Management Plan that establishes parameters for risk, fire intensity, size, duration and seasonality.*

*Standards and guidelines for management of the Mexican spotted owl and the northern goshawk are found in Appendixes F and G.*

#### **PRESCRIBED FIRE/FUELS TREATMENT**

*Consider landscape-scale application of prescribed fire in all appropriate management areas.*

*Consider mechanical fuels treatments where wildland fire use or prescribed fire may cause unacceptable damage to other resources or pose an unacceptable risk to private property.*

*Hazard fuels reduction activities within wildland urban interface areas should have priority when there are differing resource objectives.*

*Where opportunities exist, cooperative fuels treatment ventures with private, state and other Federal land management agencies should be implemented.*

### **Management Area 1 - Checkerboard Lands – Current Plan**

**Protection:**

~~Do not allow fires to spread to lands of other ownership without prior permission from landowner. Develop Fire Management Area Plans that will compliment Management Area objectives.~~

~~Protect life and property.~~

~~The maximum average annual burned area is 2 percent of the prescribed area.~~

~~The maximum fire size objective is 200 acres. Size objectives are based upon continuous area of high intensity burns.~~

~~Fires which exceed or are expected to exceed the size objective are considered escaped and appropriate response is determined by an Escaped Fire Situation Analysis (EFSA). The EFSA will consider at least the following:~~

- ~~1. The resource management emphasis of threatened analysis areas.~~
- ~~2. Suppression costs will be commensurate with resources protected.~~
- ~~3. Effects on air quality, aesthetics, soil, and watershed.~~
- ~~4. Social acceptance of acreage burned.~~
- ~~5. Current availability of suppression resources.~~
- ~~6. Impacts on cultural resources. Each EFSA will consider all types of suppression strategies.~~

**As Amended:**

No specific direction – Forest-wide Standards and Guidelines apply.



## **Management Area 2 – Woodland – Current Plan**

Protection:

~~Develop Fire Management Plans to compliment Management Area Objectives~~

~~Do not allow fires to spread to lands of other ownership.~~

~~The maximum average annual burned area is 2 percent of the prescribed area.~~

~~The maximum fire size objective is 200 acres for high intensity fires.~~

~~Size objectives are based on continuous area of high intensity burn.~~

~~The initial response objective is to economically confine all fires.~~

~~Fires which exceed or are expected to exceed the size objective are considered escaped and appropriate response is determined by an Escaped Fire Situation Analysis (EFSA). The EFSA will consider at least the following:~~

- ~~1. The resource management emphasis of threatened analysis areas.~~
- ~~2. Suppression costs will be commensurate with resources protected.~~
- ~~3. Effects on air quality, aesthetics, soil, and watershed.~~
- ~~4. Social acceptance of acreage burned.~~
- ~~5. Current availability of suppression resources.~~
- ~~6. Impacts on cultural resources.~~

### **As Amended:**

No specific direction – Forest-wide Standards and Guidelines apply.

## **Management Area 3 – Chaparral – Current Plan**

Protection:

~~Do not allow fires to spread to lands of other ownership.~~

~~Develop Fire Management Plans to compliment Management Area Objectives~~

~~The maximum average annual burned area is 2 percent of the prescribed area.~~

~~The maximum fire size objective is 200 acres for high intensity fires.~~

~~Size objectives are based on continuous area of high intensity burn.~~

~~The initial response objective is to economically confine all fires.~~

~~Fires which exceed or are expected to exceed the size objective are considered escaped and appropriate response is determined by an Escaped Fire Situation Analysis (EFSA). The EFSA will consider at least the following:~~

- ~~1. The resource management emphasis of threatened analysis areas.~~
- ~~2. Suppression costs will be commensurate with resources protected.~~
- ~~3. Effects on air quality, aesthetics, soil, and watershed.~~
- ~~4. Social acceptance of acreage burned.~~
- ~~5. Current availability of suppression resources.~~
- ~~6. Impacts on cultural resources~~

~~EFSA's will consider all suppression strategies.~~

~~Activity created fuels will be treated to a level that maximum loss objectives can be met by existing protection organization at the 65<sup>th</sup> percentile rate of spread.~~

**As Amended:**

No specific direction – Forest-wide Standards and Guidelines apply.

**Management Area 4 – Pine – Current Plan**

Protection:

~~Suppression emphasis is to minimize fire fighting costs on low intensity fires (less than 200 btu/ft/sec) and minimize acreage burned by high intensity fires (200+ btu/ft/sec.)~~

~~Do not allow fires to spread to lands of other ownership.~~

~~The maximum average annual burned areas is .1 percent of the prescribed area.~~

~~The maximum fire size objective is 20 acres for contiguous high intensity fires.~~

~~Direct attack and control all high intensity fires.~~

~~Economically contain low intensity fires.~~

~~Fires which exceed or are expected to exceed the size objective are considered escaped and appropriate response is determined by an Escaped Fire Situation Analysis (EFSA). The EFSA will consider at least the following:~~

- ~~1. Resource management emphasis of threatened analysis areas.~~
- ~~2. Suppression costs will be commensurate with resources protected.~~
- ~~3. Effects on air quality, aesthetics, soil, and watershed.~~
- ~~4. Social acceptance of acreage burned.~~
- ~~5. Current availability of suppression resources.~~
- ~~6. Resource loss potential is generally high.~~

- ~~7. Timber regeneration.~~
- ~~8. Impacts on cultural resources.~~

~~Activity created fuels will be treated to a level that maximum loss objectives can be met by existing protection organization at the 65<sup>th</sup> percentile rate of spread (NFDRS).~~

**As Amended:**

No specific direction – Forest-wide Standards and Guidelines apply.

**Management Area 5 - Desert Grasslands – Current Plan**

Protection:

~~Do not allow fires to spread to lands of other ownership.~~

~~The maximum average annual burned area is 2 percent of the prescribed area.~~

~~The maximum fire size objective is 200 acres for high intensity fires.~~

~~Size objectives are based on continuous area of high intensity burn.~~

~~The initial response objective is to economically confine all fires.~~

~~Fires which exceed or are expected to exceed the size objective are considered escaped and appropriate response is determined by an Escaped Fire Situation Analysis (EFSA). The EFSA will consider at least the following:~~

- ~~1. The resource management emphasis of threatened analysis areas.~~
- ~~2. Suppression costs will be commensurate with resources protected.~~
- ~~3. Effects on air quality, aesthetics, soil, and watershed.~~
- ~~4. Social acceptance of acreage burned.~~
- ~~5. Current availability of suppression resources.~~
- ~~6. Impacts on cultural resources~~

~~Each EFSA will consider all suppression strategies.~~

~~Activity created fuels will be treated to a level that maximum loss objectives can be met by existing protection organization at the 65<sup>th</sup> percentile rate of spread.~~

**As Amended:**

No specific direction – Forest-wide Standards and Guidelines apply.

**Management Area 6 – Wilderness – Current Plan**

Protection:

~~Prescribed natural fires and management ignited prescribed fires will be implemented to meet specific wilderness objectives.~~

~~Prepare fire management plans for each wilderness by the end of the first decade.~~

Fire Management:

Minimum suppression tactics should be used to suppress wildland fires within Wilderness.

The use of helicopters, power saws, small motorized pumps and the aerial delivery of personnel, retardants and supplies should be authorized by the incident commander(s) or as otherwise stipulated within an Wildland Fire Situation Analysis or "Delegation of Authority" signed by the line officer with jurisdiction.

**As Amended:**

Fire Management:

*Minimum Impact Suppression Tactics* should be used to suppress wildland fires within Wilderness.

The use of helicopters, power saws, small motorized pumps and the aerial delivery of personnel, retardants and supplies should be authorized by the incident commander(s) or as otherwise stipulated within an Wildland Fire Situation Analysis or "Delegation of Authority" signed by the line officer with jurisdiction.

## **Management Area 7 – Recreation – Current Plan**

Protection:

~~The suppression emphasis is to protect life and property and minimize acreage burned.~~

~~Do not allow fires to spread to lands of other ownership.~~

~~The maximum fire size objective is one acre.~~

~~The average annual burned area is .1 percent of the prescribed area.~~

~~The initial response objective is to economically confine all fires.~~

~~Fires which exceed or are expected to exceed the size objective are considered escaped and appropriate response is determined by an Escaped Fire Situation Analysis (EFSA). The EFSA will consider at least the following:~~

- ~~1. Resource management emphasis of threatened analysis areas.~~
- ~~2. Suppression costs will be commensurate with resources protected.~~

3. ~~Effects on air quality, aesthetics, soil, and watershed.~~
4. ~~Social acceptance of acreage burned.~~
5. ~~Current availability of suppression resources.~~
6. ~~Minimize acreage burned in the analysis area.~~
7. ~~Protect life property and improvements.~~

~~Dispose of all activity created slash.~~

**As Amended:**

No specific direction – Forest-wide Standards and Guidelines apply.

**Glossary – Current Plan**

~~ESCAPED FIRE SITUATION ANALYSIS—A decision analysis using those factors influencing suppression of an escaped fire from which a plan of action will be developed. The analysis includes the development of alternative suppression strategies and the probable cost and damages associated with each.~~

~~FIRE HAZARD—The fuel in which a fire will ignite and burn.~~

~~FIRE MANAGEMENT AREA—One or more parcels of land with clearly defined boundaries and with established fire management direction which is responsive to land and resource management goals and objectives.~~

~~FIRE RISK—The probability of a fire starting from natural or man-made causes.~~

~~FUEL BREAK—A zone in which fuel quantity has been reduced or altered to provide a position for suppression forces to make a stand against wildfire. Fuel breaks are designated or constructed before the outbreak of a fire. Fuel breaks may consist of one or a combination of the following: natural barriers, constructed fuel breaks, man-made barriers.~~

~~FUEL MODEL—A simulated fuel complex for which all the fuel descriptions required by the mathematical fire spread model have been specified.~~

~~FUELS MANAGEMENT TREATMENT - Manipulation or reduction of fuels to meet Forest protection and management objectives while preserving and enhancing environmental quality.~~

~~NATIONAL FIRE DANGER RATING SYSTEM—Is a method of assessing wildland fire danger based on weather, fuels, and human risk.~~

~~PRESCRIBED FIRE—The intentional application of fire to wildland fuels in either their natural or modified state under such conditions as allow the fire to be confined to a predetermined area and at the same time to produce the intensity of heat and rate of spread required to further certain planned objectives of silviculture, wildlife management, etc.~~

~~PRESCRIBED FIRE, MANAGEMENT IGNITED~~—A prescribed fire resulting from a planned, deliberate management action.

~~PRESCRIBED NATURAL FIRE~~—A fire resulting from a natural ignition that is designated and managed as a prescribed fire.

~~WILDFIRE~~—Any wildland fire that requires a suppression action. This includes all fires not meeting the requirements of a prescribed fire.

**As Amended:**

*APPROPRIATE MANAGEMENT RESPONSE* - Specific actions taken in response to a wildland fire to implement protection and fire use objectives.

*CONFINE* - Confinement is a wildland fire management strategy employed as an appropriate management response where a fire perimeter is managed by a combination of direct and indirect actions and use of natural topographic features, fuel and weather factors.

*FIRE-ADAPTED ECOSYSTEM* - Ecosystems exhibiting successional evolution and plant associations that are both tolerant of and dependent upon the occurrence of frequent, low-intensity fires. Under historical cycles of fire occurrence, these systems are stable and sustainable.

*FIRE CYCLE* - The historical or desired range (frequency) of fire disturbances over time necessary to the stability and sustainability of a given ecosystem. Synonymous with "Recurrence Interval" and "Return Interval."

*FIRE REGIME* - The total pattern of fires in vegetation, over time, characteristic of an ecosystem. Variables which lead to the formation of a "natural" fire regime include ignition sources (human, lightning), fire intensity and behavior, size of burn, recurrence (or return) intervals and ecological effects. An "altered" fire regime is different from the "natural" regime due to fuel and vegetation changes (which could have been caused by long-term changes in climate or human activities, including fire exclusion) and likewise displays a distinct pattern of fire intensity, behavior, size, recurrence and ecological effects.

*FUELS TREATMENT* - Manipulation or reduction of fuels to meet Forest protection and management objectives while preserving and enhancing environmental quality.

*PRESCRIBED FIRE* - Any fire ignited by management actions to meet specific objectives. Prior to ignition, a written, approved prescribed fire plan must exist and NEPA requirements must be met.

*PREVENTION OF SIGNIFICANT DETERIORATION (PSD)* - A permitting program of the Clean Air Act that addresses new sources of pollution. The purposes of PSD include preservation, protection and enhancement of air quality in national wilderness areas and

*other areas of special national, recreational, scenic or historic value.*

*REASONABLE AVAILABLE CONTROL MEASURES / BEST AVAILABLE CONTROL MEASURES (RACM/BACM) - From "EPA Prescribed Burning Background Document...", Sept 92, EPA-450/2-92-003. Composed of eight components: (1) Annual burn registration (performed through ADEQ); (2) Emission inventory system; (3) Daily burn manning, authorization and administration (performed through ADEQ); (4) Smoke dispersion evaluation process; (5) Implementation of emission reduction techniques; (6) Burner qualifications system (on-going); (7) State oversight program (performed by ADEQ); and (8) Public education and awareness program.*

*WILDLAND FIRE - Any non-structure fire, other than prescribed fire, that occurs in the wildland. This term encompasses fire previously called both wildfires and prescribed natural fires.*

*WILDLAND FIRE SITUATION ANALYSIS (WFSA) - A decision-making process for wildland fires that evaluates alternative management strategies against selected safety, environmental, social, economic, political and resource management objectives.*

*WILDLAND FIRE USE – The management of naturally ignited wildland fires to accomplish specific prestated resource management objectives in predefined geographic areas.*

*WILDLAND/URBAN INTERFACE - Wildland areas adjacent to habitations and high-value improvements. The area of urban development and concentrated human activity (including developed recreation sites) that is located within or adjacent to otherwise undeveloped wildlands.*

## **PROPOSED ACTION: MONITORING PLAN**

New monitoring items will be added and existing items will be modified or deleted from the 1986 Forest Plan Monitoring Plan. Each monitoring item in the proposed action is responsive to a Forest Plan goal. The Monitoring Plan will be organized into four sections to reflect the 2000 Forest Service strategic goals:

- 1 Ecosystem Health
- 2 Multiple Benefits to People
- 3 Scientific and Technical Assistance
- 4 Effective Public Service

The proposed Monitoring Plan will be used as a data source for the production of the annual Monitoring Evaluation Report. This report will reflect the four categories displayed above.

## **APPENDIX B**

### **Current Forest Plan Monitoring Plan**



# 1986 Prescott National Forest Monitoring Plan (Current)

## INTRODUCTION

The purpose of monitoring and evaluating the implementation of the Forest Plan is to inform the decision maker of the progress toward achieving the goals, objectives, and standards and guidelines.

Monitoring will determine:

- If the management prescriptions are applied as directed.
- If standards are being followed.
- If the Forest is achieving the objectives of the Forest Plan.
- 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.

A detailed annual monitoring action plan will be prepared. This annual monitoring action plan will include the details on the amount and location of monitoring to be accomplished. Specific applications, intensity of sampling, person-days required, and costs will be identified in the annual monitoring action plan. The activities to be monitored will be selected from the list and the rest of this chapter.

Evaluation of the results of the site-specific annual monitoring action plan will be documented in the annual evaluation report. The significance of the results of the monitoring action plan will be analyzed and evaluated by the Forest interdisciplinary team.

Based on the evaluation, any need for further action is recommended to the Forest Supervisor. The recommendations can include:

- No action needed. Monitoring indicates goals, objectives, and standards are being reasonably achieved;
- refer recommended action to the appropriate line officers for improvement or application of management prescriptions;
- modify the management prescription as a Forest Plan amendment;

- modify the assignment of a prescription as a Forest Plan amendment;
- revise the projected schedule of output;
- initiate revision of the Forest Plan;
- identify research needs.

The documented file of the Forest Supervisor's decisions resulting from monitoring and evaluation is maintained for future use in amending or revising the Forest Plan. An annual evaluation report of these decisions will be prepared and sent to the Regional Forester for his consideration.

The Forest Plan's monitoring requirements follow. For each activity or practice, the effect to be monitored, one or more measurement techniques and the expected future condition to be met is specified. A frequency for measuring and reporting the monitored item is established, and the expected precision and reliability of that measurement is stated. [Precision is the exactness or accuracy with which the data will be collected; reliability is the degree to which the monitoring accurately reflects the total Forest situation.]

#### TIMBER 1

1. ITEM MONTORED: Acres of intermediate harvest, regeneration harvest, and removal harvest.
2. PURPOSE: Federal regulation; measure prescriptions and effects.
3. EXPECTED FUTURE CONDITION: Achieve a more balanced age class distribution, appropriate growing stock levels, appropriate rotations, and provide wildlife habitat needs.
4. MONITORING METHOD: Timber Management Information system FSH 2409.21e]; staff field reviews of 5% of treatment projects.
5. FREQUENCY: Annually
6. EXPECTED PRECISION/RELIABILITY:  $\pm 10\%/\pm 20\%$
7. EVALUATION: If planned treatment varies  $\pm 35\%$  from schedule at 5 year intervals, the ID team will evaluate, and Plan modification may be necessary.

#### TIMBER 2

1. ITEM MONTERED: Board feet of net sawtimber offered.
2. PURPOSE: Federal regulation; measured output.
3. EXPECTED FUTURE CONDITION: Annual sale offerings will be made on a sustained yield basis.
4. MONITORING METHOD: PAMARS [MAR 17.1]
5. FREQUENCY: Annually

6. EXPECTED PRECISION/RELIABILITY:  $\pm 10\%/\pm 10\%$
7. TIME FOR REPORTING: Annually
8. EVALUATION: Evaluations by the ID Team will be made at 3rd and 6th years during the decade to insure that cumulative deviation for the decade does not vary by +20%. Plan modification may be necessary if deviation is -20%. The total for the decade cannot exceed the ASQ. This will be considered in light of the need for increased stand diversity.

#### TIMBER 3

1. ITEM MONITORED: Cords of fuelwood made available. Identified Forest Issue.
2. PURPOSE: Federal regulation; sample output.
3. EXPECTED FUTURE CONDITION: Total firewood availability from pinyon-juniper woodlands will decrease over time as existing dead material is depleted. Green wood sales will continue on a sustained yield basis. Residues from commercial timber sales will be available for firewood.
4. MONITORING METHOD: Review annual total of firewood sale reports, firewood advertised but not sold, and free use.
5. FREQUENCY: Annually
6. EXPECTED PRECISION/RELIABILITY:  $\pm 20\%/\pm 20\%$
7. TIME FOR REPORTING: 5TH YEAR
8. EVALUATION: Compare total cords made available to the projected output. If fuelwood exceeds projected level or is below projected by 25% at the 5th year, the ID Team will evaluate, and plan modification may be necessary.

#### TIMBER 4

1. ITEM MONITORED: Adequate restocking of regeneration harvests.
2. PURPOSE: Federal regulation to insure restocking.
3. EXPECTED FUTURE CONDITION: All regeneration cuttings within a sale area are adequately restocked within 5 years after final harvest.  
Adequately restocked means 80% of the regeneration cut areas to meet minimum Regional standards.
4. MONITORING METHOD: Timber Management Information System [FSH 2409.21e] and examination procedures in Silvicultural examination and prescription handbook.
5. FREQUENCY: At 3rd and 5th year following harvest.

6. EXPECTED PRECISION/RELIABILITY:  $\pm 20\%/\pm 20\%$
7. TIME FOR REPORTING: Years 3 and 5.
8. EVALUATION: If samples at the fifth year indicate inadequate stocking, i.e., less than minimum standards 80% of the sampled areas, an evaluation of plan will be completed by the ID Team, and Plan modification may be necessary.

#### TIMBER 5

1. ITEM MONITORED: Review maximum size limits for harvest areas to determine whether such size limits should be continued.
2. PURPOSE: Federal regulation
3. EXPECTED FUTURE CONDITION: Wildlife habitat will be improved through timber harvest by manipulation of stand sizes, methods of cut, and juxtaposition of stands.
4. MONITORING METHOD: A sample of openings will be checked to see if reason may exist to change the size of stands. The ID Team will be the sampling team. Ten percent (10%) of openings created per year will be sampled.
5. FREQUENCY: Every third year.
6. EXPECTED PRECISION/RELIABILITY:  $\pm 20\%/\pm 20\%$
7. TIME FOR REPORTING: Years 3, and 7.
8. EVALUATION: Examine one project annually for changes in standard.

#### TIMBER 6

1. ITEM MONITORED: Review of Timber Lands Classification
2. PURPOSE: Federal regulation
3. EXPECTED FUTURE CONDITION: Better define those areas which may be suitable for sustained yield timber projection.
4. MONITORING METHOD: 1) Review new or updated terrestrial ecosystem inventory, 2) Review development of better technology for regeneration establishment, 3) Stand exams, and 4) Timber inventory results.
5. FREQUENCY: At time of Plan revision, 10th year
6. EXPECTED PRECISION/RELIABILITY:  $\pm 10\%/\pm 20\%$
7. TIME FOR REPORTING: As part of revised Forest plan or the tenth year.
8. EVALUATION: The data monitored will be used as the basis for an evaluation to determine which lands are suited to timber production.

**RANGE 1**

1. ITEM MONITORED: Acres of forage improvement and reseeding.
2. PURPOSE: Federal regulation; measure prescription and effects. Forest Management Concern.
3. EXPECTED FUTURE CONDITION: Increase forage projection.
4. MONITORING METHOD: Review of annual work accomplishment reports.
5. FREQUENCY: Annually
6. EXPECTED PRECISION/RELIABILITY:  $\pm 10\%/\pm 20\%$
7. TIME FOR REPORTING: 5th and 9th year
8. EVALUATION: The acres of brush treatment and reseeding completed for the evaluation period (ending the ninth year) should be within 25% of projection. If not, the ID Team will evaluate, and plan modification may be necessary.

**RANGE 2**

1. ITEM MONITORED: Range structural improvements.
2. PURPOSE: Federal regulation; sample prescription and effects.
3. EXPECTED FUTURE CONDITION: In order to move toward balancing range use with capacity, the following structural improvements will be added or reconstructed: 1249 structures by the end of the first period; structures include fence, pipelines, and water developments.
4. MONITORING METHOD: Data on completed range improvements (fences, waters, and pipelines) can be tracked through annual work accomplishment reports.
5. FREQUENCY: Annually
6. EXPECTED PRECISION/RELIABILITY:  $\pm 10\% \pm 20\%$
7. TIME FOR REPORTING: 5th and 9th year
8. EVALUATION: Completion of planned improvements should be within 25% of the projection at the end of the ninth year. If not the ID Team will evaluate, and plan modification may be necessary.

**RANGE**

1. ITEM MONITORED: Permitted use on National Forest only.
2. PURPOSE: Federal regulation; measure prescriptions and effects. Forest issue related.
3. EXPECTED FUTURE CONDITION: Range permitted use will be balanced with capacity by the end of the first decade.

4. MONITORING METHOD: Data generated from grazing permits and displayed in Annual Grazing Statistical Report.
5. FREQUENCY: Annually
6. EXPECTED PRECISION/RELIABILITY:  $\pm 10\%/\pm 10\%$
7. TIME FOR REPORTING: 5th and 9th year
8. EVALUATION: Evaluate at 2 year intervals. If permitted use is below or above 10% projected levels, the ID Team will evaluate, and Plan modification may be necessary.

RANGE 4

1. ITEM MONITORED: Grazing capacity on National Forest lands only.
2. PURPOSE: Federal regulation; related Forest Issue.
3. EXPECTED FUTURE CONDITION: Through improved management and additional structural and nonstructural range improvements, range capacity is expected to increase.
4. MONITORING METHOD: Production/utilization studies and range analysis data.
5. FREQUENCY: 5th year
6. EXPECTED PRECISION/RELIABILITY:  $\pm 10\%/\pm 20\%$
7. TIME FOR REPORTING: 5th and 9th year
8. EVALUATION: Evaluate at 5 year intervals to determine rate in meeting expected capacity. If below or above 10% anticipated capacity, the ID Team will evaluate and Plan modification may be necessary.

RANGE 5

1. ITEM MONITORED: Range condition and trend.
2. PURPOSE: Forest issue related.
3. EXPECTED FUTURE CONDITION: Range conditions will be improved by decreasing unsatisfactory range.
4. MONITORING METHOD: Range Analysis conducted per R-3 standards by qualified Range Conservationists.
5. FREQUENCY: Annually.
6. EXPECTED PRECISION/RELIABILITY:  $\pm 20\%/\pm 20\%$
7. TIME FOR REPORTING: Year 10
8. EVALUATION: If the number of acres with satisfactory condition and

upward or stable trend is not within  $\pm 40$  percent of that scheduled, the ID Team will evaluate.

#### CULTURAL RESOURCES 1

1. ITEM MONITORED: Cultural resources listed on the National Register of Historic Places.
2. PURPOSE: Comply with law and executive order; resource protection.
3. EXPECTED FUTURE CONDITION: Assure protection of cultural resource sites.
4. MONITORING METHOD: Ground inspection will be conducted in conjunction with other resource activities.
5. FREQUENCY: Annually
6. EXPECTED PRECISION/RELIABILITY: No variance allowed.
7. TIME FOR REPORTING: Annually
8. EVALUATION: Protective actions will be undertaken if vandalism or natural deterioration threatens the integrity of a site.

#### CULTURAL RESOURCES 2

1. ITEM MONITORED: Cultural Resource Clearance Surveys.
2. PURPOSE: Comply with law and executive order; resource protection.
3. EXPECTED FUTURE CONDITION: Minimized disturbance of cultural resources.
4. MONITORING METHOD: Field checks will be conducted on 25% of the ground disturbing projects.
5. FREQUENCY: At the conclusion of small projects or throughout life of larger projects.
6. EXPECTED PRECISION/RELIABILITY: No variance allowed.
7. TIME FOR REPORTING: At the conclusion of small projects or throughout life of larger projects.
8. EVALUATION: No cultural resource disturbing activities will be permitted other than authorized professional excavation. If other disturbance is observed there will be a professional review and damage assessment as specified in Regional standards.

#### SOIL AND WATER 1

1. ITEM MONITORED: Watershed conditions
2. PURPOSE: Identified Forest Issue; prescription effect.

3. EXPECTED FUTURE CONDITION: Increased acres of watershed in satisfactory condition. Increased forage and ground cover.
4. MONITORING METHOD: Ten 50-pace transects per project per year.
5. FREQUENCY: Annually
6. EXPECTED PRECISION/RELIABILITY:  $\pm 10\%/\pm 15\%$
7. TIME FOR REPORTING: 5th and 9th year
8. EVALUATION: Evaluate at 5-year intervals to determine if satisfactory watershed condition acres targets are being achieved. If below or above 15% anticipated targets, the ID Team will evaluate and Plan modification may be necessary.

#### SOIL AND WATER 2

1. ITEM MONITORED: Estimated Water Yield Treatment.
2. PURPOSE: Identified Forest Issue; measure prescription effects.
3. EXPECTED FUTURE CONDITIONS: Increased water yield.
4. MONITORING METHOD: Review of annual work reports for converted acres.
5. FREQUENCY: Annually
6. EXPECTED PRECISION/RELIABILITY:  $\pm 20\%/\pm 20\%$
7. TIME FOR REPORTING: 5th and 10th year
8. EVALUATION: Evaluate at 5-year intervals to determine if manipulated acres are within 10% of the target. If not, the ID Team will evaluate and plan modification may be necessary.

#### SOIL AND WATER 3

1. ITEM MONITORED: Best management practices.
2. PURPOSE: To assure compliance with State water quality standards.
3. EXPECTED FUTURE CONDITION: Production of water from Forest lands will meet State water quality standards.
4. MONITORING METHOD: Established best management practices (i.e., seeding disturbed areas, water barring roads, etc.) will be checked for implementation on the ground by designated qualified personnel.
5. FREQUENCY: Annually, one project will be checked.
6. EXPECTED PRECISION/RELIABILITY:  $\pm 20\%/\pm 10\%$



7. TIME FOR REPORTING: Years 3, 5, and 7.
8. EVALUATION: Failure to implement at least 80 percent required best management practices will require evaluation by the ID Team.

PROTECTION 1

1. ITEM MONITORED: Law enforcement person hours.
2. PURPOSE: Federal regulation
3. EXPECTED FUTURE CONDITION: Increased law enforcement efforts by the Forest Service, aided by cooperative agreements with local Sheriff's Departments, will be adequate and commensurate with the goods and services produced on the Forest.
4. MONITORING METHOD: Professional evaluation of trend based on a review of case loads, solution rates, and public complaints. The evaluation will be based on a review of 1) protection of cultural resources; 2) fuelwood theft; 3) fire and recreation violations; 4) wilderness entry; 5) occupancy use; 6) ORV damage; 7) dollar cost of vandalism; and 8) trends in user protection.

Data in the Lemars system will be reviewed and used as a Data Base.

5. FREQUENCY: The Lemars system is updated monthly.
6. EXPECTED PRECISION/RELIABILITY:  $\pm 10/\pm 10\%$
7. TIME FOR REPORTING: Every three years
8. EVALUATION: The Forest Law Enforcement Coordinator will review the level of law enforcement and make recommendations on program effectiveness. Evaluation by the ID Team every 3 years will determine if a plan modification is necessary.

PROTECTION 2

1. ITEM MONITORED: Determine that destructive insects and disease organisms do not increase to potentially damaging levels following management activities.
2. PURPOSE: Federal regulation.
3. EXPECTED FUTURE CONDITION: Through various silvicultural activities, slash treatment and various control methods, insect and disease problems are not expected to have serious adverse effects of the Forest. Monitoring of insect and disease levels will provide information necessary to determine future impacts.
4. MONITORING METHOD: a) Periodic aerial surveys, b) Ground checks by qualified personnel, c) Timber sale administration.

5. FREQUENCY: As needed through 1) yearly aerial flights and 2) ground checks on an opportunity basis.
6. EXPECTED PRECISION/RELIABILITY:  $\pm 40$  percent/ $\pm 30$  percent.
7. TIME FOR REPORTING: Annually.
8. EVALUATION: Data will be evaluated to determine if the buildup results from a management practice. If the buildup occurs, an evaluation of significance will be made by the ID Team. If potentially damaging, the ID Team will modify management prescriptions.

#### FIRE MANAGEMENT 1

1. ITEM MONITORED: Fire suppression effectiveness.
2. PURPOSE: Measure prescription effects.
3. EXPECTED FUTURE CONDITION: Fire risk will increase if the projected increase in population is realized.
4. MONITORING METHOD: a) Periodic inspections and reviews to determine if the fire management organization is effective in controlling fire losses within prescription, and b) The use of the fire budget analysis process to determine fire management efficiency, and c) Fire reviews of selected fires.
5. FREQUENCY: Annual inspections, periodic review, and fire budget analysis process as needed.
6. EXPECTED PRECISION/RELIABILITY:  $\pm 10\%$ / $\pm 10\%$
7. TIME FOR REPORTING: Annually for inspections and every third year for the fire budget analysis.
8. EVALUATION: Periodic evaluation will be made to determine if the fire management organization is insuring compliance with standards and guidelines applied to 90% of the wildfires.

#### FIRE MANAGEMENT 2

1. ITEM MONITORED: Project generated fuel treatment.
2. PURPOSE: Measure prescription effects.
3. EXPECTED FUTURE CONDITION: Fuel treatment will follow the various timber activities as a means of reducing fire hazard and insect and disease potential.
4. MONITORING METHOD: Annual fuel treatment report. Data is generated from field personnel who monitor and/or direct fuel treatment by Forest Service crews, logging companies, contractors, etc.
5. FREQUENCY: Annually
6. EXPECTED PRECISION/RELIABILITY:  $\pm 10\%$ / $\pm 10\%$

7. TIME FOR REPORTING: Every five years.
8. EVALUATION: Evaluation will be made of project fuels. If 80% of the fuels are not being treated within 2 years of generation, an adjustment in the Plan will be necessary.

#### RECREATION 1

1. ITEM MONITORED: Actual dispersed recreation use in Recreation Opportunity Spectrum [ROS] settings.
2. PURPOSE: Federal regulation; measure prescription effects.
3. EXPECTED FUTURE CONDITION: Demand for dispersed recreation use will be within anticipated capacity.
4. MONITORING METHOD: a) Recreation Information Management Report, and b) Inspections of heavily used dispersed areas, including evaluation of vegetative deterioration and soil erosion.
5. FREQUENCY: Annually
6. EXPECTED PRECISION/RELIABILITY:  $\pm 20\% \pm 20\%$
7. TIME FOR REPORTING: 3rd, 6th, and 9th year.
8. EVALUATION: Compare actual use records for a five year time period to project use by ROS setting. If use exceeds 30% of projected use and/or the trend in ORV violations increase 30% over current violations and/or soil loss exceeds tolerance level the ID Team will evaluate and make recommendations to management.

#### RECREATION 2

1. ITEM MONITORED: Developed site use, public and private sector.
2. PURPOSE: Federal regulation; sample output.
3. EXPECTED FUTURE CONDITION: The projected annual demand for developed recreation at year 2035 is 735,000 RVDs (standard). The plan will provide 380,000 RVD or 52% of the demand.
4. MONITORING METHOD: The projected Information Management Report, Use Report. (Based on District Ranger estimates and on actual count of tickets sold or other counts by private sector operators.) Double sample techniques will be employed at least every three years.
5. FREQUENCY: Annually
6. EXPECTED PRECISION/RELIABILITY: [RIM Date]  $\pm 30\% / \pm 30\%$   
[Double Sample]  $\pm 3\% / \pm 3\%$
7. TIME FOR REPORTING: 3rd, 6th, and 9th year.

8. EVALUATION: Compare actual use to projected use. If actual use is under by 10% or is over by 20%, the IS Team will evaluate and Plan modification may be necessary.

### RECREATION 3

1. ITEM MONITORED: The effect of management activities on acres of visual quality objectives [VQOs].
2. PURPOSE: Ensure standards and guidelines for visual management are met.
3. EXPECTED FUTURE CONDITION: The plan requires the VQOs to be managed at current inventory levels within the tolerances specified in the Forestwide standards and guidelines. Maintenance of retention and partial retention VQOs will be emphasized.
4. MONITORING METHOD: All project work plans will be reviewed and evaluated for compliance with VQOs. Periodic evaluation reports will be prepared to document the cumulative effect of individual projects.
5. FREQUENCY: Annual reviews of project work plans and cumulative evaluations in the fourth and ninth years of the plan.
6. EXPECTED PRECISION/RELIABILITY:  $\pm 10\%/\pm 10\%$
7. EVALUATION: If acres in retention and partial retention fall below tolerance levels, changes in the plan may be required to maintain desired visual quality.

### LANDS

1. ITEM MONITORED: Miles of rights-of-way acquired.
2. PURPOSE: Federal regulations; measured prescription effects; Forest related issue.
3. EXPECTED FUTURE CONDITION: An estimated 18 miles of rights-of-way to be acquired in the first period.
4. MONITORING METHOD: Work accomplishment report
5. FREQUENCY: Annually
6. EXPECTED PRECISION/RELIABILITY:  $\pm 5\%/\pm 5\%$
7. TIME FOR REPORTING: 4th and 8th year
8. EVALUATION: Failure to acquire projected needed rights-of-way at the end of the seventh year will require ID Team evaluation, and Plan modification may be necessary.

### WILDERNESS 1

1. ITEM MONITORED: Wilderness use by Recreation Opportunity Spectrum Class.

2. PURPOSE: Federal regulation; measure prescription effects effects; Forest related issue.
3. EXPECTED FUTURE CONDITION: Wilderness use is expected to be less than the social carrying capacity at 2035 on a Forest-wide basis. Wilderness use will increase at an average annual rate of 7%.
4. MONITORING METHOD: Wilderness R.I.M. use information.
5. FREQUENCY: Annually
6. EXPECTED PRECISION/RELIABILITY:  $\pm 20\%/\pm 20\%$
7. TIME FOR REPORTING: 4th and 7th year.
8. EVALUATION: Compare actual use record for a 3 year time period to projected use for each wilderness. If use exceeds 30% of total projected use, ID Team will evaluate, and Plan modification may be necessary.

#### WILDERNESS 2

1. ITEMS MONITORED: Miles of wilderness trail construction/reconstruction and maintenance.
2. PURPOSE: Federal regulations; measure prescription effects; Forest issue related.
3. EXPECTED FUTURE CONDITIONS: Wilderness is expected to be less than social carrying capacity at 2035 on a Forest-wide basis. An improved trail system through construction/reconstruction and maintenance is expected to provide a better distribution of visitor use and improved wilderness opportunities.
4. MONITORING METHOD: Work Accomplishment Reports.
5. FREQUENCY: Annually
6. EXPECED PRECISION/RELIABILITY:  $\pm 5\%/\pm 5\%$
7. TIME FOR REPORTING: 3rd, 6th and 9th years
8. EVALUATION: Evaluation by the ID Team will be made at the third and sixth years during the decade to insure that cumulative deviation for the decade does not vary by  $\pm 25\%$ . Plan modification may be necessary if  $\pm 25\%$ .

#### WILDLIFE

1. ITEM MONITORED: a) Population and habitat capability trends of management indicator species, and b) Population and habitat capability trends of State and Federally listed plants and animals to include sensitive species.
2. PURPOSE: Federal and State regulations, and Identified Forest Issue.

3. EXPECTED FUTURE CONDITION: Wildlife habitat will continue towards later successional stages with the exception of identified project acres. A gradual increase in late successional species and corresponding loss of early successional wildlife is expected.

State and Federal list of sensitive species will be protected.

4. MONITORING METHODS:

- a. Nongame Birds:
  - [1] Point-counting method developed by Reynolds et al (1980).
  - [2] Monitor management Guides as developed by Short and Burnham (1982) and modified by Verner (in press).
  - [3] Single-season monitoring (Verner 1980).
  - [4] Monitor trends in habitat (Thomas et al 1979).
- b. Game Animals and Fish:
  - [1] Arizona Department of Game and Fish census.
  - [2] Monitor trends in habitat.
- c. Threatened and Endangered Species:
  - [1] Annual monitoring.
- d. State Listed:
  - [1] Monitor trends in habitat capabilities.
- e. Sensitive Plants:
  - [1] Monitor trends in habitat capabilities.

5. FREQUENCY Baseline Data will be collected for two years. This information will refine the current habitat capability model which will be used to evaluate compliance with the Forest objectives. Monitoring indicator species for each management area every two years and threatened and endangered species every year. Update and verify habitat components every 10 years.

6. FREQUENCY:

- a. Nongame Birds:
  - [1] Monitor every two years; emphasize birds in habitat especially vulnerable to management actions.
  - [2] Monitor other habitats and diversity every ten years.
- b. Game Animals and Fish:
  - [1] Monitor trends in habitat diversity every ten years.
  - [2] Monitor game population annually.
- c. Threatened and Endangered Birds: Annually.
- d. State Listed: Annually
- e. Sensitive Plants: Annually

7. EXPECTED PRECISION/RELIABILITY:  $\pm 30\% \pm 30\%$

8. REPORTS: Baseline date; continuous populations of game animals - annually. Indicator species habitat capability - Every two years T&E, sensitive and state listed species - annually. Habitat structural stages - Every ten years.
9. EVALUATION: The monitoring system includes wildlife O&M costs of management, analysis, and interpretation of the data obtained from monitoring. Monitoring as described is tentative and exploratory; modifications may be needed to better indicate the effects of management activities on the wildlife resource.

#### RIPARIAN

1. ITEM MONITORED: Riparian condition.
2. PURPOSE: Forest issue; prescription effects.
3. EXPECTED FUTURE CONDITION: Improved riparian condition.
4. MONITORING METHOD: Baseline data will be collected for the first five years. This information will refine the current habitat capability model which will be used to evaluate compliance with the Forest objectives.

Nongame bird indicator species. [See nongame birds]

Macro invertebrate - Systematic field sampling using Biotic Condition Index (BCI).

Riparian condition - R-3 Regional Guide.

5. FREQUENCY:
  - Macro Invertebrates will be monitored every two years.
  - Riparian condition will be monitored every five years.
  - Identified Threatened and Endangered species will be monitored annually.
6. EXPECTED PRECISION/RELIABILITY:  $\pm 20\%/\pm 20\%$
7. REPORTS: Baseline update - continuous
  - Game population - annually.
  - Indicator species habitat capability - every two years.
  - Identified T&E, sensitive and state listed species - annually.
  - Riparian condition - every five years.
8. EVALUATION: Evaluation by the Forest ID Team will be made every five years. Evaluation by the Forest Hydrologist, Soil Scientist and Wildlife Biologist every two years.

#### FACILITIES

1. ITEM MONITORED: Amount and distribution of use of the Forest transportation system and the total miles in the system.
2. PURPOSE: Forest issue related.

3. EXPECTED FUTURE CONDITION: There are currently 2533 miles of arterial, collector, local travelway roads on the Forest of which 174 miles would be obliterated every decade during the first five decades.
  
4. MONITORING METHOD: Engineering will submit data on roads constructed, reconstructed, maintained, and obliterated which are entered on the National Forest Transportation Inventory System. Similar update data on the trail system will be entered in the Recreation Information Management System.
 

Traffic use and distribution data will be collected on 5% of the Forest system from: 1) State of Arizona Highway Department; 2) Forest service traffic counters and surveillance methods. Trail use will be monitored by the use of data in the Recreation Information Management System.
  
5. FREQUENCY: Annually.
  
6. EXPECTED PRECISION/RELIABILITY:
  - a] Size:  $\pm 20\%/\pm 30\%$
  - b] Use: [Roads and Highways]
    - 1]  $\pm 5\%/\pm 5\%$
    - 2]  $\pm 5\%/\pm 5\%$
  - c] Use: [Trail System]
 

RIM Data  $\pm 30\%/\pm 30\%$
  
7. TIME FOR REPORTING: 3rd, 6th and 9th years.
  
8. EVALUATION: Evaluation at 3 year intervals will indicate the effectiveness of road or trail management. Changes in size of the system exceeding  $\pm 25\%$  of planned levels may require evaluation by the ID Team for plan modification.

COST 1

1. ITEM MONITORED: Unit costs by selected activities [MIH].
  
2. PURPOSE: Verify ability to implement Forest Plan.
  
3. EXPECTED FUTURE CONDITION: Unit costs as derived from FORPLAN.
  
4. MONITORING METHOD: PAMARS.
  
5. FREQUENCY: At the end of each fiscal year.
  
6. EXPECTED PRECISION/RELIABILITY:  $\pm 5\%/\pm 5\%$
  
7. TIME FOR REPORTING: 3rd, 6th and 9th year.
  
8. EVALUATION: If average costs vary more than +10 percent from unit costs derived from FORPLAN, an evaluation will be made by the ID Team to determine the reason for the variance. Implementation of additional cost reducing measures and/or plan modifications could result.



COST 2

1. ITEM MONITORED: Total annual budget.
2. PURPOSE: Verify ability to implement Forest plan.
3. EXPECTED FUTURE CONDITION: An average annual budget of \$4,826,000 for the first period [based on 1st quarter 1982 dollar value].
4. MONITORING METHOD: Annual PAMARS reporting system and Regional Forester's Program, Budgeting and Information System.
5. FREQUENCY: At end of each fiscal year.
6. EXPECTED PRECISION/RELIABILITY:  $\pm 5\%/\pm 5\%$
7. TIME FOR REPORTING: 3rd, 6th, and 9th years.
8. EVALUATION: If budget varies more than -5% or +10% from an average annual over 3 years, an evaluation will be made by the ID Team and Plan modification may be necessary.

COST 3

1. ITEM MONITORED: Budget by program component.
2. PURPOSE: Verify ability to implement Forest Plan.
3. EXPECTED FUTURE CONDITION: Average annual appropriation equal to amount allocated in cost tables for Economic Efficiency Technical Report.
4. MONITORING METHOD: Annual PAMARS reporting system and Regional Forester's Program, Budgeting, and Information system.
5. FREQUENCY: At the end of each fiscal year.
6. EXPECTED PRECISION/RELIABILITY:  $\pm 5\%/\pm 5\%$
7. TIME FOR REPORTING: 3rd, 6th, and 9th years.
8. EVALUATION: If budget varies more than -5% or +10% from an average annual over 3 years, an evaluation will be made by the D Team for Plan modification.

## **APPENDIX C**

### **Proposed Monitoring Plan**

## Prescott National Forest Monitoring Plan (proposed)

**INTRODUCTION** The purpose of monitoring and evaluating the implementation of the Forest Plan is to inform the decision maker of the progress toward achieving the goals, objectives, and standards and guidelines.

Monitoring will determine:

- If the management prescriptions are applied as directed.
- If standards are being followed.
- If the Forest is achieving the objectives of the Forest Plan.
- 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.

A detailed Annual Monitoring Plan will be prepared. This plan will include the details on the amount and location of monitoring accomplished.

Based on the Annual Monitoring Report, any need for further action is recommended to the Forest Supervisor. The recommendations can include:

- No action needed. Monitoring indicates goals, objectives, and standards are being reasonably achieved;
- refer recommended action to the appropriate line officers for improvement or application of management prescriptions;
- modify the management prescription as a Forest Plan amendment;
- modify the assignment of a prescription as a Forest Plan amendment;
- revise the projected schedule of output;
- initiate revision of the Forest Plan;
- identify research needs.

The documented file of the Forest Supervisor's decisions resulting from monitoring and evaluation is maintained for future use in amending or revising the Forest Plan. An annual evaluation report of these decisions will be prepared and sent to the Regional Forester for his consideration.

## Prescott National Forest Monitoring Plan (proposed) Ecosystem Health

Associated Goals	Item(s)	Description	Methodology	Frequency	Results
Establish improved balance in age class distribution through silvicultural, prescribed stand management. Focus on reducing constraining components of stand strata.  Improve stand productivity through management.	Forested Areas	Acres within forested areas treated to maintain or enhance ecosystem health and sustainability.	Silva Report, MAR, and Project Summaries	Annually	
Timber harvest will be used as a tool to accomplish multiple resource objectives.	Standard: All timber sales will be planned utilizing integrated resource management.				
Manage for a diverse, well-distributed pattern of habitats for wildlife populations and fish species in cooperation with states and other agencies.	Upland Acres	Acres treated to maintain or enhance diversity and/or distribution of wildlife habitat.	Project Summaries and MAR	Annually	
	Streams	Stream distance treated to maintain or enhance diversity and/or distribution of fish habitat.			
	Lakes	Lake area treated to maintain or enhance diversity and/or distribution of habitat			
Maintain and/or improve habitat for threatened or endangered species and work toward the eventual recovery and delisting of species through recovery plan implementation.	T&E Species Recovery Plan Tasks	Summary of recovery plan tasks implemented for each listed species on the Forest.	Project Summaries	Annually	
	Management Indicator Species	Population trends of identified MIS	Surveys	Species Dependent or every 5-yrs.	
Identify and manage areas that contain threatened and endangered species of plants.	T&E Plant Spp Populations	Occurrence and condition of identified T&E plant species.	Surveys and Reports	Continuously	
Integrate wildlife habitat management activities into all resource practices through intensive coordination.	Standard: Interdisciplinary planning, coordination, and design will be conducted on all proposed Forest projects.				
Administer the mineral laws and regulations to minimize surface resource impacts while	Mining Activities	Number of permits administered.	Project Summaries and	Annually	

**Prescott National Forest Monitoring Plan (proposed)  
Ecosystem Health**

<b>Associated Goals</b>	<b>Item(s)</b>	<b>Description</b>	<b>Methodology</b>	<b>Frequency</b>	<b>Results</b>
supporting sound energy and minerals exploration and development.		Number of new permits issued.	MAR		
Pursue reclamation of past and present mined lands.	Mine Sites	Numbers of reclaimed sites and/or acres of land affected by mining.	Project Summaries and MAR	Annually	
Protect and improve the soil resource.  Provide for long-term quality waterflow needs through improved management technology.  Restore all lands to satisfactory watershed condition.	National Forest Lands	Acres treated to improve watershed health.	Project Summaries and MAR	Annually	
Improve all riparian areas and maintain in satisfactory condition.	Riparian Corridors	Condition of riparian areas.	Surveys	Annually	
Minimize air pollution from land management activities through application and timing of improved management practices.	Standard: Assist and coordinate with the State in developing and applying air quality and smoke management standards.				
When and where appropriate, ecosystem objectives are met through the use of prescribed fire and wildland fires used for resource benefits. (FMH methodology will be used selectively in each major vegetation type on the Forest.)	Prescribed burns and fire-use projects	Acres treated that meet resource objectives.	Burn Area Surveys	Post-burn	
			FMH plots in selected areas	Pre-burn, immediately post-burn, then at 1, 2, 5, 10, and 20-year intervals	
The fire interval, behavior and effects associated with the historic fire regime is returned to the landscape where feasible. (See Appendix D)	National Forest Lands	Acres restored to historic fire regime.	Burn Area Surveys	Post-burn	
Natural agents of ecological change will be allowed to operate freely in the wilderness.	Addressed in individual wilderness management plans				

**Prescott National Forest Monitoring Plan (proposed)  
Ecosystem Health**

<b>Associated Goals</b>	<b>Item(s)</b>	<b>Description</b>	<b>Methodology</b>	<b>Frequency</b>	<b>Results</b>
Provide forage to the extent benefits are relatively commensurate with costs without impairing land productivity and within the constraints of social needs.	Allotment Management Plans	Cost: benefit ratios displayed within plans where investments are proposed.	Economic Model	Annual aggregate from approved plans including investments.	
Cooperate with other agencies and private range landowners to reduce impacts of livestock grazing.	Standard: Cooperation with other agencies is encouraged to promote more rapid improvement in management and range condition.				
Ensure that all recreation sites are managed so that natural resources are maintained at a desirable condition over expected life of project or activity.	Developed Recreation Sites	Changes to vegetation, soil, sanitation.	Survey of Resource Impacts and Condition Description & Visual Observation.	Yearly	
	Dispersed Recreation Sites	Changes to vegetation, soil, sanitation.	Survey of Resource Impacts and Condition Description & Visual Observation.	Yearly	
	Areas Under Recreation Special Use Permits	Changes to vegetation, soil, sanitation.	Self-Inspection by Permit Holder.	During and After SUP Event	

**Prescott National Forest Monitoring Plan (proposed)  
Multiple Benefits**

<b>Associated Goals</b>	<b>Item(s)</b>	<b>Description</b>	<b>Methodology</b>	<b>Frequency</b>	<b>Results</b>
The visual landscape appears natural within the context of indigenous vegetation and landforms or modified to conform with VMS.	Projects	All projects that modify or change the character or appearance of the visual landscape.	Project proposals, NEPA documents,, summaries and MAR	Annually or as projects occur	
Emphasize visual resource preservation in recreation areas and areas of high visual concern.	Site and areas of moderate to high use	Modify projects to conform or achieve the SMS goals.	Project proposals and evaluation of implementation	On-going	
Visual quality is managed to reflect the existing and future uses of the landscape.	Projects	All projects that change the character or appearance of the visual landscape will be requested to evaluate and contribute to implement or maintain the SMS	Project proposals or NEPA documents	On-going	
Uses allowed in wilderness will be managed to preserve wilderness character and values.	Trails	Number of people using trails	Trail sign ins, observations and trail counters.	Monthly	
	Special uses allowed in wilderness	Changes to vegetation, soil, sanitation	Self-administered inspection for wilderness SUP's	Every SUP at time of application; Annual count.	
	Social trails	Miles and /or density of social trails	Inventory by wilderness patrols	Annually	
Recreation users enjoy a full spectrum of experiences in managed facilities and other Forest settings.	Recreation Visitors	Number of visitor comments.	Direct visitor feedback (comment cards, phone calls, personal contact)	On-Going	
	Projects	Project proposals evaluate effects on ROS to determine if the ROS classification would be changed or should be changed	Project proposals or NEPA documents	On-going	

**Prescott National Forest Monitoring Plan (proposed)  
Multiple Benefits**

<b>Associated Goals</b>	<b>Item(s)</b>	<b>Description</b>	<b>Methodology</b>	<b>Frequency</b>	<b>Results</b>
The fuelwood sale and harvest program will be used as a tool to accomplish and compliment multiple ecosystem objectives.	Standard:	The availability of green fuelwood and dead-and-down fuelwood within an area should be determined following analysis of resource issues and needs.			
Manage human resource programs to provide employment and economic development opportunities while meeting natural resource goals.	Number of persons employed	Employment provided by Senior Community Service Employment and Youth Conservation Corps Programs	Personnel Records and Reports	Annually	
Avoid adverse impacts to: the public, Government facilities and all uses in floodplains and wetlands	Standards and guidelines for watershed and soils. Addressed through the NEPA process.				
Maintain a transportation system to support resource goals.	Roads and Trails	Miles of roads maintained or reconstructed.	Project Summaries and MAR	Annually	
		Miles of trails maintained or reconstructed.			
Heritage resources represent an opportunity for research, education, understanding and enjoyment enhancing their protection.	Heritage Sites	Number of sites protected	Sites visited and recorded - direct protection efforts	Annually	
		Vandalism monitored	As noted in site visits	As observed	



**Prescott National Forest Monitoring Plan (proposed)  
Scientific and Technical Support**

<b>Associated Goals</b>	<b>Item(s)</b>	<b>Description</b>	<b>Methodology</b>	<b>Frequency</b>	<b>Results</b>
Cooperate with Arizona Game and Fish Department to achieve management goals and objectives in Arizona Cold Water Fisheries Strategic Plan.	Coldwater Programs	Number of fish stocked per site.	Report	Annually	
Support the goals and objectives of the Arizona Wildlife and Fisheries Comprehensive Plan.	Comprehensive Plan Habitats maintained or enhanced.	Acres maintained or enhanced for Comprehensive Plan Species at the project level.	Project Report Summaries	Annually	

**Prescott National Forest Monitoring Plan (proposed)  
Effective Public Service**

<b>Associated Goals</b>	<b>Item(s)</b>	<b>Description</b>	<b>Methodology</b>	<b>Frequency</b>	<b>Results</b>
Construct, maintain, and regulate use of Forest Service facilities to protect natural resources, correct safety hazards, reduce disinvestments, and support management activities.	Standards and Guidelines for facilities.				
Improve the Forest's law enforcement program through public education, employee training, increased presence, manager accountability and public assistance.	Law Enforcement Activities	Summary of law enforcement activities.	LEIMARS	Annually	
Provide adequate information for visitors at all facilities; incorporate interpretive site plans in capital investment projects.	Forest Interpretive Plan				
Conduct landownership adjustment, right-of-way acquisition, landline location, and special-uses programs to promote efficient management.	Landownership Adjustments	Number of parcels / acres acquired or traded.	Project Summaries and MAR	Annually	
	Rights of Way	Numbers and kind of rights of way acquired or permitted.			
	Forest Boundaries	Miles of landline survey.			
Ensure interdisciplinary input and coordination for implementing, monitoring, and updating the Forest Plan.	Standard: Develop and maintain a Forest Plan and Forest data base in compliance with NFMA and NEPA.				
Information, environmental education, and interpretation communicate the Forest Service role and mission, and enhance user understanding and enjoyment.	Standard: All plans for interpretive-related facilities, programs and recreational developments will follow standards set forth in the Forest Interpretive Plan.				
Environmental education is presented within an ecosystem context. Stress landscape ecology and interdependency of land, people, systems.	Environmental Education Programs	Number of environmental education programs developed and presented.	Track number of programs	Annually	
Forest Service contacts support Forest law enforcement through internal and external communications.	Standard: Enhance law enforcement effectiveness by providing training for Forest employees to enforce laws and educate the public on Forest use regulations.				

**Prescott National Forest Monitoring Plan (proposed)  
Effective Public Service**

<b>Associated Goals</b>	<b>Item(s)</b>	<b>Description</b>	<b>Methodology</b>	<b>Frequency</b>	<b>Results</b>
Volunteers and partnerships provide increased public contact.	Public programs involving help through volunteers and partnerships.	Volunteer hours and number of agreements/partnerships.	Year-end Reporting	Annually	

## **APPENDIX D**

### **Prescott National Forest Fire Management Plan B. Wildland Fire Use**

-

### **Decision Criteria Checklist (Go/No-Go Decision Criteria)**

# PRESCOTT NATIONAL FOREST FIRE MANAGEMENT PLAN

(Excerpt)

## B. Wildland Fire Use

Wildland fire use refers to the management of naturally ignited wildland fires to accomplish specific, pre-stated resource management objectives in predefined geographic areas as defined in the Forest Plan and outlined in this Fire Management Plan.

### Fire Use Analysis and Decision Process

#### 1. Responsibilities and Approval Authorities

Forest Supervisor: Approves the Fire Management Plan. Notifies Regional Forester of all wildland fire use projects that undergo Stage I WFIP analysis with a “GO” decision as soon as practical.

District Ranger: Responsible for implementing FMP on their respective District including initial approvals of natural ignitions for Wildland Fire Use and subsequent Stage II, Stage III Implementation Plans and daily validations.

Fire Duty Manager: Prepares Stage I Initial Fire Assessment and recommends course of action to District Ranger.

Fire Use Manager: Develops and implements Wildland Fire Implementation Plans.

#### 2. Decision Criteria

Refer to Additional Stipulations in Section D of the Wilderness FMU for wildlife issues in Castle Creek and for Air Quality considerations in all approved areas.

Generally, wildland fire use should be allowed when the summer rainy season starts or is imminent. Natural ignitions occurring in the early part of the season in May or early June may be managed as wildland fire use incidents provided they are of short duration and are confined to small, easily managed areas.

Weather and fuel conditions should be monitored carefully prior to arrival of lightning episodes. Decisions on wildland fire use should be made daily and before lightning arrives. These daily decisions should be clearly communicated with Initial Attack resources to avoid delays in taking immediate suppression action, if that is the appropriate action. Daily decisions allowing wildland fire use would trigger preparatory actions such as discussions with Line Officer and resource professionals that a wildland fire use incident might be imminent.

Use the following as decision guidelines in determining if wildland fire use is the appropriate action:

- Energy Release Component < 65%.
- 1,000 TFM >10% (except MSO habitat in Castle Creek).
- Drought conditions non-existent or moderating.

- Suppression activity on Forest/Zone/Regionally/Nationally – Will we have appropriate resources in sufficient quantity to manage a wildland fire use incident?
- Preparedness Levels
- Air Quality? Need to consult with AZDEQ prior to a “GO” decision.

### 3. WFIP implementation stages, requirement status, and completion timeframes.

A Stage I, Initial Fire Assessment, will be sufficient documentation for most small, non-complex fire use fires. Examples include single snags or fires confined by natural or manmade features and not likely to burn beyond a few acres. [See DECISION CRITERIA CHECKLIST]

The Stage II (Short-Term Implementation Actions) should be completed when any of the following factors indicate a fire will meet resource management objectives in a measurable fashion.

- Fire is expected to continue active growth into the foreseeable future.
- Air Quality concerns are increasing.
- Threatened and Endangered or sensitive species habitat will be impacted
- Fire is adjacent to the Wildland/Urban Interface

### 4. Public Information

News releases and notification of cooperators will be issued for every fire managed for resource benefits. Stage II Implementation Actions will specify the scope, extent and organizational needs necessary to fully inform the public, cooperators and elected officials. Some fires may only require occasional part-time involvement by PIO's whereas more complex fires may require a dedicated PIO team for the duration of the incident.

### 5. Records

Establish a separate file for each wildland fire managed for resource benefits. This file should contain the following documentation:

- Wildland Fire Implementation Plan (Stage I-III) including Periodic Fire Assessments
- Fire activity observations (weather, fire behavior, smoke)
- Job codes and expenditure records
- Permanent map – GPS fires of all fires over 50 acres. Insure GPS is converted into GIS Fire History layer.
- Photos electronic and film
- News releases and public information documentation

Requirement status key:

- 1 = mandatory
- 2 = mandatory, but can be preplanned
- 3 = optional
- 4 = completed if Stage II or Periodic Fire Assessment, Part 2 indicate need (can be preplanned in FMP or a FMA).
- 5 = completed if fire exceeds management capabilities
- 6 = completed if Periodic Fire Assessment, Part 1 indicates need

WFIP Stage	Planning and Assessment Element	Requirement Status			Maximum completion timeframe
		Initial Attack	Other suppression-oriented appropriate management responses	Fire use actions	
WFIP Stage I: Initial Fire Assessment	Fire Situation	1	1	1	As soon as possible
	Decision Criteria Checklist (Initial Go/No-Go Decision)	3	1	2	2 hours after first fire detection
WFIP Stage II: Short-Term Implementation Actions	Short-Term Fire Behavior Predictions and Risk Assessment	3	3	1	24 hours after Stage I completion
	Short-Term Implementation Actions	2	3	2	
	Complexity Analysis	3	3	1	
	Stage II Need Assessment Chart	NA	3	1	
WFIP Stage II: Long-Term Implementation Actions	MMA Definition	3	4	4	Within 24 hours after Stage II or Periodic Fire Assessment indicates need
	Fire Behavior Predictions	3	4	4	
	Long-Term Risk Assessment	3	4	4	
	Long-Term Implementation Actions	3	4	4	
Periodic fire Assessment	Part I: Revalidation	NA	1	1	On assigned frequency
	Part II: Stage II Need Assessment Chart	NA	1	1	
	WFA	5	5	6	Before implementing new strategy

**Wildland Fire Implementation Plan – Stage I**

**DECISION CRITERIA CHECKLIST**

	<b>YES</b>	<b>NO</b>
Is there a threat to life, property, or resources that cannot be mitigated? Are there potential adverse air quality impacts?		
Are potential effects on cultural and natural resources outside the range of acceptable effects? Will fire intensities exceed the desired range?		
Are relative risk indicators and/or risk assessment results unacceptable to the unit Line Officer?		
Is there other proximate fire activity that limits or precludes successful management of this fire? Does the current Preparedness Level preclude wildland fire use?		
Are there other Line Officer issues that preclude wildland fire use?		

The Decision Criteria Checklist is a process to assess whether the situation warrants continued wildland fire use implementation. A “Yes” response to any element on the checklist indicates the appropriate management response should be suppression-oriented.

<b>Recommended Response Action</b> (check appropriate box)	<b>NO-GO</b> (Initial attack/suppression action)	
	<b>GO</b> (other appropriate management response)	

**Signature** \_\_\_\_\_ **Date** \_\_\_\_\_