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BUREAU OF LAND MANAGEMENT

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Subject

6600 - FISH, WILDLIFE, AND SPECIAL STATUS PLANT
RESOURCES INVENTORY AND MONITORING

1. Explanation of Material Transmitted: This release transmits a revision to BLM Manual Section 6600, Wildlife and Fish Inventory and Monitoring Programs. It updates existing policy and program guidance; identifies inventory and monitoring processes and standards; and establishes evaluation procedures.
2. Reports Required: None.
3. Material Superseded: The Manual Section superseded by this release is listed under "REMOVE" below. No other directives are superseded.
4. Filing Instructions: File as directed below.

REMOVE:

All of 6600 (Rel. 6-91)

(Total: 14 Sheets)

INSERT:

6600

(Total: 12 Sheets)

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6600 - FISH, WILDLIFE, AND SPECIAL STATUS PLANT
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.01 Purpose. This Manual Section provides policy and direction for conducting inventory and monitoring of fish, wildlife, and special status plant resources as necessary to comply with laws, regulations, executive orders, and supplement guidance in BLM Manual Section 1734 - Inventory and Monitoring Coordination.

.02 Objectives. The objectives of this Manual Section are to:

A. Provide data on fish, wildlife, and special status plant resources to assist managers in making sound multiple use management decisions.

B. Provide data to establish management objectives for fish, wildlife, and special status plant resources.

C. Evaluate the effects of management decisions on fish, wildlife, and special status plant resources.

D. Coordinate inventory and monitoring with other agencies and BLM programs so that such activities are conducted in the most efficient and cost-productive manner.

E. Use Bureau Information Management Standards and organized data systems to:

1. Describe the occurrence and distribution of fish, wildlife, and special status plant resources using an ecological classification system.

2. Analyze data.

3. Evaluate biological diversity.

4. Provide data exchange within BLM and with other agencies and groups.

.03 Authority (see also BLM Manual Section 6500).

A. The Federal Land Policy and Management Act (FLPMA) of 1976 (43 U.S.C. 1701 et seq.) directs BLM to prepare and maintain on a continuing basis an inventory of all public lands and their resource values. This inventory shall be kept current so as to reflect changes in conditions and to identify new and emerging resources and other values. FLPMA directs us to use these inventories for resource management planning.

B. National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321-17; 83 Stat. 852; p. 1., 91-190). Directs Federal agencies to utilize ecological information in the planning and development of resources-oriented projects.

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C. Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901 et seq.). Directs development and maintenance of an inventory of range conditions and trends as part of FLPMA's inventory process.

D. Endangered Species Act of 1973 (16 U.S.C. 1533 et seq.), as amended. The Secretary of Interior is directed to make determinations of species' status and of critical habitat based on the best scientific and commercial data available to him after conducting a review of the status of the species. The Secretary is also directed to conduct a review of all species included in an endangered or threatened list.

E. National Recreational Fisheries Policy of 1988 directs BLM, as a cooperator, to monitor accurately the status of fish populations and to evaluate on a continuing basis existing data bases and surveys to improve their utility for decisionmaking in recreational fisheries management.

F. BLM Fish and Wildlife 2000 directs Field Offices to identify and monitor key wildlife habitats.

.04 Responsibility. (See BLM Manual Section 1734.)

A. Director and Deputy Director are responsible for ensuring that public land resources are adequately inventoried and monitored. This responsibility is exercised through Deputy Directors and Assistant Directors.

B. Assistant Director for Land and Renewable Resources is responsible for establishing policy, objectives, programs, and general procedures for coordinated inventory and monitoring of lands and renewable resources on public lands.

C. Chief, Division of Planning and Environmental Coordination, is responsible for the overall administration, coordination, and integration of natural resource inventories and monitoring. The Chief develops and maintains a comprehensive BLM resource inventory and monitoring strategy to support planning, environmental assessment, and resource program actions.

D. Chief, Division of Rangeland Resources, is responsible for developing and implementing procedures and guidance relating to inventory and monitoring of rangeland resources, including vegetation, soil, water, and air. The Chief is responsible for coordinating rangeland management inventories and monitoring with the Chief, Division of Wildlife.

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E. Chief, Division of Wildlife and Fisheries, is responsible for:

1. Developing policy, guidelines, standards, and procedures for inventory and monitoring of fish and wildlife resources in coordination with State Wildlife Agencies and other Federal Agencies.
2. Coordinating with other BLM offices to ensure that inventory and monitoring procedures are incorporated into BLM programs as appropriate.
3. Evaluating the effectiveness of inventory and monitoring procedures.

F. Other Division and Office Chiefs are responsible for ensuring that wildlife habitat inventory and monitoring needs are addressed in their program areas.

G. Service Center Director is responsible for:

1. Providing technical assistance for implementation of inventory and monitoring techniques.
2. Developing and maintaining computer support for processing and analyzing data obtained from inventory and monitoring.
3. Maintaining Bureauwide data systems.

H. State Directors are responsible for:

1. Ensuring that inventory and monitoring procedures are implemented in their States.
2. Coordinating and integrating inventory and monitoring procedures with other resource programs.
3. Maintaining data systems for their State.
4. Ensuring that analyzed data are incorporated into land use planning.

I. District Managers are responsible for:

1. Implementing the fish and wildlife program, including coordinated inventory and monitoring, in their Districts.
2. Evaluating inventory and monitoring programs in their Districts.
3. Maintaining fish and wildlife inventory and monitoring data system for their Districts.

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J. Area Managers are responsible for coordinating inventory and monitoring between disciplines in their Resource Areas. Maintain Fish and Wildlife inventory and monitoring data systems in their resource areas.

.05 References.

A. BLM Manual Sections 1203 - Delegation of Authority, Appendix 1; 1622.1 - Supplemental Program Guidance for Renewable Resources, Fish and Wildlife Habitat Management; 1734 - Inventory and Monitoring Coordination; 4400 - Rangeland Inventory, Monitoring and Evaluation; 6500 - Wildlife and Fisheries Management; 6521 - State Agencies; 6522 - Federal Agencies; 6525 - Sikes Act Wildlife Programs; 6840.6 - Special Status Species Management, Data Collection and Wildlife and Fisheries Information System Strategic Plan (WFIS).

B. BLM Handbook H-4400-1 - Rangeland Monitoring and Evaluation.

C. BLM Technical Notes (TN), References, and Bulletins: TN 349, Terrestrial Wildlife Inventories - Some Methods and Concepts; TN 283, Techniques for Conducting Stream Habitat Survey on National Resource Lands; TR 1737-2, Riparian Area Management, Inventory and Monitoring; TR 4400, Rangeland Monitoring; TR 4410-1, National Range Handbook.

D. Cooperrider, A. Y., comp. and et al., 1986, Inventory and Monitoring of Wildlife Habitat, USDI/BLM, Washington, D.C., 858 pp.

.06 Policy. Consistent with and supplemental to policies outlined in BLM Manual Section 1734 - Inventory and Monitoring Coordination, it is BLM policy to:

A. Ensure that fish, wildlife, and special status plant inventory and monitoring priorities are consistent with legal mandates and BLM priorities as reflected in AWP directives; and in resource management and activity plans (see illustration 3).

B. Focus inventory and monitoring based on priority species and habitats of fish, wildlife and plants, and plant communities and ensure that the intensity is commensurate with: resource values; issues and resource conflicts; and levels of management.

C. Identify desired fish, wildlife, and special status plant resource conditions and the future date when monitoring data will be needed to evaluate the effectiveness of management practices in meeting resource objectives.

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D. Design and implement monitoring based on fish, wildlife and special status plant objectives that are clearly defined, site-specific, and measurable, with a timetable for accomplishment.

E. Use habitat sites(HS), standard habitat sites(SHS) and ecological sites (see Technical Reference 4410 - 1.0722) to classify and describe fish, wildlife, and special status plant resources in order to analyze and manage on an ecosystem basis.

F. Use consistent fish, wildlife, and special status plant inventory and monitoring standards and procedures to organize and implement effective programs. Issue additional guidance at appropriate organizational levels to establish minimum inventory and monitoring standards and procedures for fish, wildlife, and special status plants.

G. Ensure that inventory and monitoring data are systematically stored for future retrieval, analysis, and evaluation. Inventory data must be stored on BLM-approved systems: Integrated Habitat Inventory & Classification System (IHICS), Riparian Aquatic Information Data Summary (RAIDS), Threatened and Endangered Species Data System (TEDS), Wildlife Observation Report Data System (WORDS).

H. Periodically evaluate fish, wildlife and special status plant inventory and monitoring activities to ensure conformance with established standards and procedures (see illustrations 1, 2, 3, and 4).

.07 File and Records Maintenance. See BLM Manual Section 1272 for records maintenance and the Bureau Records Schedule for the disposition of records.

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.1 Process.

.11 Inventory and Monitoring Relationships.

A. Focus. Inventory and monitoring are key tools of the Bureau's fish and wildlife program. The primary purpose of inventory is to gather information on the distribution, condition, trend, and utilization of the fish and wildlife and special status plant resources. Inventories are conducted prior to preparation of environmental impact statements (EIS's), environmental assessments (EA's), resource management plans (RMP's), activity plans, and certain resource management authorizations. As provided in Manual Section 1622.1, certain fish and wildlife habitat management determinations are required in every RMP. Ensure that adequate baseline resource data are available to make the required determinations and resource management decisions and to establish fish and wildlife resource objectives.

B. Scope. The scope of an inventory will depend on the level of planning and the issues. Standards for coordination of resource inventories are contained in BLM Manual Section 1734. An RMP will generally require broad inventory while activity plans require site-specific inventories. At all levels, existing data must be reviewed and the inventory designed to fill data gaps and update existing information. Once baseline data have been collected and used in decisionmaking, specific resource decisions will require that follow up monitoring be established to determine the effects of these decisions in relation to fish, wildlife, and special status plant resource management objectives. Monitoring standards and intervals established in the RMP are the basis for subsequent resource specific activity plan monitoring including development of monitoring and evaluation plans (MEP's). Resource management plan objectives that require site-specific monitoring for fish, wildlife, or special status plants must be incorporated in habitat management plans (HMP's), other activity plans, or in monitoring evaluation plans (MEP'S) where no activity plan exists. Monitoring results are used to identify the need for changes in management.

.12 Priorities.

A. Priorities. Fish, wildlife and special status plant inventory and monitoring priorities are based on legal mandates, BLM priorities, AWP directives, and priorities in resource management and activity plans. Use the criteria outlined on illustration 3 to prioritize fish, wildlife, and special status plant resource objectives that require monitoring.

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B. Monitoring Evaluation Plans (MEP's). MEP's are necessary to organize and implement effective monitoring, establish priorities for monitoring workloads within the fish and wildlife program, and between related programs (BLM Manual Section 1734.25). Moreover, where no activity plan exists, incorporate land use plan objectives that require fish, wildlife, or special status plant monitoring in MEP's. MEP'S are developed at the Resource Area level through the use of interdisciplinary teams. Monitoring standards and procedures for design, analysis, evaluation, responsibilities, and schedules shall be included as part of MEP'S.

.13 Coordination. Coordinate fish and wildlife resources inventory and monitoring activities within BLM, with State agencies, other Federal agencies, Indian tribes, and private individuals and groups to increase effectiveness, reduce costs, and avoid duplication of effort. To ensure adequate evaluation of resource decisions contained in resource management and activity plans (AMP's, HMP's, etc.), and NEPA documents, establish interdisciplinary teams to review monitoring data and identify if changes in management direction are necessary to achieve resource management and/or fish, wildlife, and plant objectives. This will ensure that appropriate fish, wildlife, and plant skills are represented to adequately analyze and review monitoring data. Applicable State and Federal collecting regulations must be followed and permits obtained when necessary.

.14 Classifying and Describing Fish and Wildlife Resources. Because of the interdependent relationships between species and their habitats, inventory and monitoring must be tied to a habitat classification system. This will allow analysis of impacts on a site-specific basis, analysis of biological diversity on an ecosystem basis, and data exchange between other programs and agencies. IHICS and RAIDS are the required Bureau inventory data systems for classifying and describing terrestrial and aquatic habitats. The lowest terrestrial classification level (mapping unit) shall be the IHICS habitat site, which is synonymous with the site writeup area in the Ecological Site Inventory (ESI) method. The next level of classification is the Standard Habitat Site. An important distinction between the ESI method and IHICS classification is that habitat sites are based on existing vegetation whereas ecological sites are based on potential vegetation. BLM's approved ecological classification systems are developed from Kuchler's (1975) Potential Natural Vegetation of the Conterminous U.S. and Brown and Lowe's Vegetation of Southwest U.S. In aquatic systems, the mapping unit is the homogeneous stream segment.

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.2 Standards.

.21 Data Collection, Storage, and Analysis. It is essential that Inventory and Monitoring of Wildlife Habitats by Cooperrider, A. Y., comp. and et al., 1986, be consulted prior to designing and conducting inventory and monitoring activities. This document identifies standards and procedures for fish and wildlife habitat inventory and monitoring.

A. Data Collection. Flexibility to use various methods is allowed to meet inventory and monitoring needs in a wide variety of habitats and management situations. However, within regions possessing similar habitats and species, managers shall strive to use as many standard methods as possible to ensure data consistency over time. (Refer to .05 above for additional guidance.)

B. Data Storage. Data generated from inventory and monitoring shall be documented and stored in permanent files that can be easily accessed. Computer files may be developed at the local level, but inventory data shall be entered using the Data Elements from the Data Element Dictionary for official BLM systems: IHICS for terrestrial/riparian data, RAIDS for riparian and aquatic data, TEDS for endangered species, and WORDS for opportunistic wildlife sightings (H-6601-1). Major inventories shall be automated. The collecting/storing office is responsible for administering and maintaining the automated data as part of the interim system and eventually as part of the target Land Information System (LIS). Integration of fish and wildlife data systems with the LIS target system shall be identified in the Wildlife and Fish Information System (WFIS) Plan. Written files are usually stored at the District Office or Resource Area and consist of species locality records, field forms, maps and overlays, IHICS 6602-1 and 6602-2 forms, etc. Ensure that wildlife, fish, and special status plant files are cross-referenced to other pertinent program files (range, watershed, etc.)

C. Data Analysis. All inventory and monitoring data shall be summarized and interpreted in a report that is part of the written file.

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D. Integration with Other Data Bases. Habitat site/ecological site mapping must be incorporated into the Geographic Information System (GIS) and LIS as funding and priorities permit to facilitate data analysis. The Inventory Data System (IDS) includes recent range inventory data. The information in this system may be useful in habitat analyses. Some State agencies and private conservation groups have data bases that BLM can utilize. These include State wildlife agencies, Heritage programs, and The Nature Conservancy.

.22 Program Evaluation. Conduct periodic evaluations of inventory and monitoring activities to ensure conformance with policy, standards, and procedures. Use the fish, wildlife, and special status plant monitoring assessment procedures outlined in illustrations 1, 2, 3, and 4 in the evaluation process.

A. Inventory Evaluations. Inventories shall:

1. Conform with accepted standards and procedures.
2. Have adequate documentation to enhance utility.
3. Be automated to facilitate analysis and use.
4. Provide the basis for development of measureable resource objectives and informed and defensible resource decisions.

B. Monitoring Evaluations. Monitoring evaluations shall focus on:

1. Conformity with accepted standards and procedures.
2. Whether objectives are site-specific and measurable.
3. Whether priorities have been established and followed.
4. Adequacy of internal and external coordination and participation.
5. How well monitoring procedures are measuring progress toward the management objectives.

C. Worksheets Used. Current/Proposed Monitoring: Fish, Wildlife and Special Status Plants Work Sheet 1 (Illustration 1), Summary of Current Proposed Monitoring: Fish, Wildlife and Special Status Plants - Section I, Summary of Current Proposed Monitoring: Fish, Wildlife and Special Status Plants - Section II Worksheet 2a&b (Illustration 2), and the Matrix (Illustration 3) in the evaluation procedure.

.23 Reporting. Use Financial Management System standards to report units of accomplishment: acres inventoried and number of plans monitored.

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-A-

aquatic: relates to water; flora and fauna that live entirely within or depend on water media for their major life functions (does not include shore birds, waterfowl, beavers, etc.).

-B-

baseline data: initial animal and plant information collected in a geographic area. Inventory is the process used to collect baseline data.

biological diversity: the aggregate of species assemblages (communities), individual species, and genetic variation within species and the processes by which these components interact within and among themselves.

-D-

data element (DE): a collection of data (characters) that describes an item of information at or near its basic level--the level at which it cannot be further subdivided.

-E-

ecological site: a kind of land with a specific potential natural community and specific physical site characteristics, differing from other kinds of land in its ability to produce vegetation and to respond to management. Ecological site is synonymous with range site.

ecological site inventory (ESI) method: a standardized system for classifying rangeland based on soils, landform, and dominant vegetation. This method analyzes rangeland based on a comparison of existing vegetation to the potential natural community.

ecosystem: an interacting natural system including all the component organisms together with the abiotic environment that comprises one functioning whole.

-F-

fish and wildlife resources: in this Manual Section, refers to terrestrial and aquatic species and their habitats, including special status plant species and invertebrates.

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-H-

habitat: place where an animal or plant normally lives for a substantial part of its life, often characterized by dominant plant forms and/or physical characteristic (i.e., the stream habitat, the forest habitat).

habitat site (HS): a mappable unit composed of homogeneous forms of existing vegetation, soils, landform, and animal species occurrence.

homogeneous stream segment (HSS): a stream reach with similar geomorphic, biological, and physical characteristics.

-I-

Integrated Habitat Inventory and Classification System (IHICS): BLM's standardized system for describing, integrating, organizing, storing, and retrieving fish and wildlife inventory, habitat, animal species occurrence, and biological diversity information.

inventory: the periodic and systematic collection and analysis of data on the distribution, condition, trend, and utilization of fish and wildlife resources and special status plant species.

-M-

monitoring: the orderly collection and analysis of resource data to evaluate progress in meeting resource management objectives. Monitoring may also include (1) the collection of data to evaluate progress in complying with laws, regulations, policies, executive orders, and management decisions, and (2) the collection of data in order to assist in resource protection.

monitoring and evaluation plan: a document, developed by the Field Office manager encompassing a grazing environmental impact study area, resource management plan area, or Resource Area, which outlines monitoring types and methods, frequency, and intensity of sampling, study locations, and resource objectives to be monitored. In general, it describes how, when, and where monitoring and evaluation will be implemented and who will do it.

-S-

site writeup area (SWA): a mapping unit based on the ecological site.

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special status species: species of plants and animals that fall into one of the following categories: federally-listed threatened or endangered, proposed for Federal listing, category 1 and 2 candidates for Federal listing, sensitive species as designated by State Directors, and State-listed species.

species: a taxonomic classification of plants or animals that are capable of interbreeding.

standard habitat site: a grouping of habitat sites based on similarity of vegetation and local landform.

-T-

terrestrial: describes those species, both flora and fauna, that are primarily restricted to the land.

Threatened and Endangered Species Data System (TEDS): BLM's standardized system for organizing, storing, and analyzing data on special status species.

-W-

WORDS: BLM's standardized system for recording and storing opportunistic observations of significant species.

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Worksheet 1
Current/Proposed Monitoring: Fish,
Wildlife and Special Status Plants

Section I - Resource Objectives, Priorities, and Monitoring Workload

- A. Record name and type of plan and/or decision or action which identifies monitoring need: _____
_____.
- B. Objective/Decision: _____
_____.
- C. Objective (check as appropriate): Is site-specific/measurable ___;
Should be: Redefined ___ Developed ___
- D. Is monitoring of the objective adequate? Yes ___ No ___.
- E. Has collected data been used in a decision? Yes ___ No ___.
- F. Has a decision date (point) been established? Yes ___ No ___.
If yes, what is the date? _____
- G. Annual cost estimate, subactivity ____: WM's ____; Total \$ ____.
- H. Monitoring priority:
High ___ Medium ___ Low ____ . 4351 ___ 4352 ___ 6334 ____.

Section II - Recommended Actions to Address Monitoring Issues/Problems:

- 1.
- 2.
- 3.
- 4.

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Instructions for Worksheet 1

Section I - Resource Objectives/Priorities/Monitoring Workload.

A. Record name and type of plan and/or decision or action: Refer to resource management and activity plans and other appropriate documents such as EIS's, EA's, and ROD's which identify on-the-ground monitoring needs.

B. Objective/Decision: State the objective/decision that has been identified for on-the-ground monitoring. One worksheet will be necessary to analyze each objective/decision. Include only resource objectives, decisions, or actions that require monitoring at the activity plan level. Land use plan objectives/decisions or NEPA decisions that do not require on-the-ground monitoring should not be included in Part B. Also do not include monitoring of surface compliance stipulation.

C. Is the objective/decision site-specific/measurable? If it is decided that a resource objective or decision in an RMP/MFP or activity plan must be redefined in measurable terms to permit on-the-ground monitoring, ensure the original intent of the resource objective or decision is maintained throughout the process. Decisions or actions identified in EA's, ROD's, etc., must also have measurable and site-specific objectives developed to ensure that impacts are measured. Moreover, a decline in resource conditions may necessitate corrective actions prior to an established decision date (see F.). Therefore, resource condition thresholds should also be addressed in relation to resource objectives. Identify necessary actions required for redefining or developing monitorable on-the-ground resource objectives in Section II. Once resource objectives are redefined in site-specific and measurable terms, complete Parts D-H.

D. Is the resource objective being adequately monitored? Does the data being collected provide adequate information for assessing progress in achieving the objective? If the answer is no, describe in Section II what must be done to ensure adequate monitoring.

E. Has collected data been used in a decision? Determine whether the monitoring data being collected has been used to evaluate the stated resource objective and/or management decision or action.

F. Has a decision date been established? Determine the date when the data will be needed to evaluate a resource objective or decision.

G. Annual cost estimate: Estimate the total cost by subactivity on an annual basis for monitoring design, data collection, data analysis and evaluation, as applicable.

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Instructions for Worksheet 1 (continued)

H. Monitoring priority: Indicate by subactivity whether the resource objective has a high, medium, or low monitoring priority in relation to other objectives currently being monitored or proposed for monitoring. The monitoring criteria should be used along with other criteria tailored to local situations. Take each objective and address the questions on the left side of the matrix. For example, if it is marginally feasible, both biologically and economically to monitor the objective, consider: (1) ranking the objective as low priority; (2) redefining the objective; (3) not attempting to monitor, or delaying monitoring. If it is decided after analysis that an objective should not be monitored or delayed and it involves an important monitoring commitment in a resource management plan or NEPA document, ensure that it is addressed in Section II, Step 2B and brought to the attention of management. If desired, a weighted matrix can be developed to numerically score resource objectives to facilitate ranking. If necessary, resource objectives may be ranked within the three major categories.

Section II - Recommended Actions

A. Make specific recommendations on how to address monitoring issues and problems identified under Section I. If you answered "no" to any of the responses and/or indicated an objective should be redefined to ensure it is measurable, indicate the steps and timeframes necessary to accomplish the action. After completing the assessment for all objectives, consolidate all recommended actions from Worksheet 1, and develop a timetable and strategy to address monitoring issues and problems.

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Instructions for Worksheet 2

Sections I and II. Section I is current monitoring and Section II is proposed monitoring.

A. Total number of objectives (proposed or being monitored): Record the total number of objectives from Worksheet 1 according to priority category and subactivity.

B. Total number of objectives needing modification or development: Record the total number of objectives identified in Worksheet 1 within each priority category, by subactivity.

C. Number of objectives by plan or document: Record from Worksheet 1 the number of objectives by plan or document within each priority category and subactivity. The total number of objectives (columns A and B) should be the sum of objectives by plan or document. Ensure that the plan or document identified as containing the objectives is where the actual on-the-ground monitoring of the objective is occurring or will take place.

D. Cost estimate: Record cost estimates from Worksheet 1. These are actual (current) or anticipated (proposed) annual costs of performing monitoring activities of identified objectives for each priority category by subactivity.

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Worksheet 2
Summary of Current/Proposed Monitoring:
Fish, Wildlife and Special Status Plants

Section I - Current Monitoring

Subactivity & Priority Category	Total No. of Objectives		C. Number of Objectives by Plan or Document					Cost Estimate	
	A. Being Monitored	B. Required to be Modified or Developed	MFP/ RMP	Activ. Plan	Monitoring Plan	EIS/ EA	Other (Identify)	WM's	Total \$(000)
4351 High									
Medium									
Low									
4352 High									
Medium									
Low									
6334 High									
Medium									
Low									

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Worksheet 2
Summary of Current/Proposed Monitoring:
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Section II - Proposed Monitoring

Subactivity & Priority Category	Total No. of Objectives		C. Number of Objectives by Plan or Document					Cost Estimate	
	A. Proposed for Monitoring	B. Required to be Modified or Developed	MFP/RMP	Activ. Plan	Monitoring Plan	EIS/EA	Other (Identify)	WM's	Total \$(000)
4351 High									
Medium									
Low									
4352 High									
Medium									
Low									
6334 High									
Medium									
Low									

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Matrix for Fish, Wildlife and Special
Status Plant Monitoring Assessment Procedures

(Application of monitoring criteria should
be based on existing knowledge.)

	<u>High Feasibility</u>	<u>Moderate Feasibility</u>	<u>Marginal Feasibility</u>
Is it biologically and economically feasible to monitor resource objective/decision?	<u>Highly developed prescriptions/tech</u>	<u>Moderately developed prescriptions/tech</u>	<u>Marginally developed prescriptions/tech</u>
Are ecologically sound techniques and management prescriptions available to achieve resource objective in a reasonable timeframe?	<u>BLM has full authority and mgmt jurisdiction</u>	<u>BLM has shared authority and mgmt jurisdiction</u>	<u>BLM has limited authority and mgmt jurisdiction</u>
BLM capability to bring about desired changes within existing authority and mgmt jurisdiction?	<u>Adequate mgmt alternatives</u>	<u>Limited mgmt alternatives</u>	<u>Inadequate mgmt alternatives</u>
Biological: Will current and future alternatives to change species/habitat conditions/trends be jeopardized if resource objective/decision is not monitored?	<u>High benefits that would be foregone</u>	<u>Moderate benefits that would be foregone</u>	<u>Low benefits that would be foregone</u>
Social and Economic: What will be the anticipated social and economic consequences of not monitoring resource objective decision or action?	<u>Highly controversial; substantial adverse public reaction possible</u>	<u>Moderate controversy; some adverse public reaction possible</u>	<u>Little or no public controversy or adverse public reaction probable</u>
Public Controversy: What will be the potential public reaction if resource objective/decision is not adequately monitored?	<u>High Level</u>	<u>Moderate Level</u>	<u>Low Level</u>
Federal, State and public interest and involvement in evaluation of resource objective/decision?			
Interest and involvement of other Bureau programs in evaluation of resource objective/decision?			
Additional criteria:			