

## **CHAPTER 12**

### **RESOURCE MANAGEMENT PLAN IMPLEMENTATION**

#### **12.1 ACCURACY**

This RMP will provide long-term management direction for land and water resources in the Banks Lake Management area for the next 10 to 15 years. In the interim, the RMP will be reviewed, amended, and updated as needed to ensure the plan remains current and continues to fulfill its intended purpose over the next decade. Modifications to the RMP will reflect changing conditions, new research and information, and budget constraints. The remainder of this chapter explains *how* Banks Lake will move from the “Current Management Situation” to the “Desired Condition”; *when* the plan will come into effect; and *who* will be responsible for managing and monitoring the results. The RMP will authorize the coordination of adaptive management to ensure all future decisions in the planning area will include a multiple-use approach to natural resources by making sure the goals of the RMP always reflect the management actions being implemented from the Desired Condition.

#### **12.2 IMPLEMENTATION**

Execution of the RMP requires a transformation from the Current Management Situation to the Desired Condition over the next 10 to 15 years; successful implementation will require *action*. Together, land managers and resource specialists will pursue the Management Actions listed in the Desired Condition when the RMP is accepted and adopted by Reclamation. During the implementation process, the Banks Lake management area will be driven by existing federal, state, and local laws, in addition to administrative and agencies policies, regulations, and guidelines. Site-specific environmental compliance will be accomplished prior to initiating any ground disturbing activities. The process will be *observable* and the outcome will yield *visible* results, as each management recommendation (for every resource) is accomplished. Since resources are not limited to physical and administrative boundaries, implementation of the RMP will require cooperation and coordination from regulatory agencies with oversight from Reclamation (see Jurisdictional Boundaries). Commitment to working towards the Desired Condition is needed if the RMP is to be successful.

#### **12.3 BUDGET CONSIDERATIONS**

Adequate funding is necessary to fulfill and maintain all the obligations of the RMP. Since budget constraints may limit the number and types of management actions occurring in a given year, it is critical to schedule, prioritize, and plan projects for the following fiscal year. If a management activity within a specific project is not adequately included in the RMP and will have an environmental effect, then the activity will be evaluated using the NEPA process. These smaller NEPA analyses will be subjected to public involvement and tiered to the EIS and the RMP as a supplemental environmental report. Whereas, management actions adequately covered in the RMP, which are not considered environmentally significant, will warrant a

categorical exclusion and will not require additional environmental analysis. The NEPA process will be incorporated in the budget of any management action requiring further environmental analysis. The availability of funding for a monitoring program, following the implementation of management actions requiring an EA or an EIS, will also be considered (see Monitoring).

## **12.4 DATABASE MANAGEMENT**

In addition to the EA and FONSI, the RMP will be linked to a corresponding GIS (Geographic Information Systems) resource database; where each resource will have its own stand-alone attributes (e.g. point, line, or polygon). Specifically, the GIS natural resource database will be designed to provide individual coverage for each resource, or type of data and will be overseen by Reclamation. Being a powerful management tool, a GIS resource database has many purposes and is efficiently capable of the following tasks: 1) managing past and present resource data in a uniform manner, 2) assisting in resource data inventory to be shared across agencies, 3) providing the base line for modeling past resource trends or future predictions, 4) managing and tracking resource funds, 5) identifying spatial problems and their solutions using an overlay of multiple resources, 6) supporting policy decisions regarding resources, and 7) short and long term resource monitoring (see Monitoring Section 11.5). The information contained in the database will also expand and contract with the RMP as the management needs change over time. It is expected some management priorities will decrease after the implementation of the RMP while other issues may become a greater concern as a result of an extenuating circumstance, or circumstances. For instance, the number of visitors drastically increases or decreases; a species becomes listed or delisted; degradation in water quality; and so on. Therefore, it is imperative the RMP and the database evolve together so land managers can continue to determine the effectiveness of a proposed project, implement additional projects, or revamp existing projects. Reclamation will oversee the database and ensure it serves the goals of the RMP.

## **12.5 MONITORING**

A monitoring program will be initiated directly after implementation of the management actions and the additional environmental commitments to inform Reclamation and the public of the progress being completed. Monitoring can also determine the effectiveness of a mitigation strategy, particularly when the outcome of a specific action is unknown. Similar to the RMP, the monitoring program will be broken down by resource, so a comparison of conditions is possible. This type of evaluation is used as a control, or standard, to examine the difference between the previous condition and the Current Management Situation by determining the following criteria.

- 1) Are the management actions concerned with the project meeting planned goals and objectives of the RMP?
- 2) Are existing and emerging public issues and management concerns being addressed?

- 3) Are the costs of implementing the RMP as predicted?
- 4) Are the RMP's standards (e.g. management plans and biological opinions) being followed?
- 5) Are the effects of implementing the RMP occurring as predicted?
- 6) Are the activities on nearby lands, managed by other agencies, being affected differently than what was expected?
- 7) If there is a need to revise or correct the RMP?

### 12.5.1 Feedback Loop

Being perhaps the most important component of the RMP, the monitoring program will be incorporated into the project design and funding requirements for the management actions and the additional environmental commitments requiring follow up environmental analysis (see Budget). Projects and/or additional environmental commitments will not be implemented if they cannot be monitored. Because agencies are funded on an annual basis, it is unlikely projects will continue to receive funding for long-term monitoring. This shortcoming undermines the purpose of monitoring and can result in indiscriminate resource management that is financially wasteful. Monitoring programs may require adjustments to the management action to fulfill the purpose and need of the project; these recommendations, known as a feed-back loop, include the following course of actions.

- 1) No action needed; monitoring reflects goals, objectives, and standards being achieved as predicted.
- 2) Adjust management action and reimplement to the area; adjust EA or EIS accordingly with an amendment.
- 3) Revise the project schedule.
- 4) Initiate revision of the RMP.

## 12.6 ASSESSMENT

An effective monitoring program will be quantitative and able to measure the *extent* and the *direction* the management activity has on a resource. The assessment process will be objective to ensure the data collected is meaningful and actually tracks the effects of an action over time. An interdisciplinary team of resource specialists is particularly helpful when determining the management objective, the criteria, the issues, and the indicators needed to evaluate the effects of a management action on a given resource. The following is a hypothetical exercise to demonstrate the various aforementioned components of monitoring.

### 12.6.1 Scenario

For example, in the Natural Resource section (under the heading Management Actions for Wildlife Habitat), one such action states, “to enhance fish and wildlife habitats where the potential exists.” The previous statement is the management *objective*. However, predetermined management *criteria* are required to determine if the *objective* has been met or not, after implementation of a given management action. Additionally, the *criteria* will be measurable (e.g. must maintain 5 trees per acre, at least 40 feet tall, in areas within 100 feet of the reservoir where the potential exists). An example of non-measurable criteria will be to increase the number of tall trees adjacent to the reservoir. Whereas, the *issue*, being immeasurable, is what is being effected by the management action. In this exercise, the *issue* will be a specific fish and/or wildlife species (representing a group of species) found in a given habitat type. The issue is not simply trees, wildlife, or fish because that will imply an examination of all trees, all wildlife, and all fish. The term *issue* refers to the specific resource being effected and does not have to be biotic (e.g. water issues, cultural issues, safety issues, etc.). *Issue* selection of specific species can be motivated by a number of factors including environmental policy concerning the species status or its popularity (Kellert 1984). Conversely, *indicators* are measurable attributes that directly or indirectly relate back to how the *issue*, or species, is responding to the management activity.

The criteria are met by directly measuring the number and height of trees, but how this management action actually affects fish and wildlife habitat is unknown without monitoring the indirect variables. Some specific examples of indirect indicators for this scenario include (but are not excluded to):

- 1) Is the population abundance of selected fish and wildlife issue species increasing or decreasing in the surrounding habitat attempting to be enhanced by a management action?
  - a) Indicator: Population Abundance
  - b) Issue: Fish Species X and Raptor Species Y
- 2) Is the water temperature conducive for the issue aquatic species (assuming the species requires shade provided by the neighboring trees)?
  - a) Indicator: Temperature
  - b) Issue: Water
- 3) Are the selected species using the habitat for its intended management purpose (e.g. breeding)?
  - Are the numbers of spawning sites for fish species X increasing or decreasing?
  - Are the numbers of nests for raptor species Y increasing or decreasing?
    - a) Indicator: Number of Sites for fish species X and nests for raptor species Y
    - b) Issue: Land Use for Species X and Y

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Data collected using combinations of direct and indirect indicators (before and after the activity) is needed to determine the *extent* the management activity has on a resource. Understanding *direction* through monitoring can determine if the action is positively affecting the resource, negatively affecting the resource, or having no effect at all. A protocol will be developed for sampling techniques used for monitoring purposes (Friend et. al 1994). This method will consider factors such as: frequency, timing, and repeatability of sampling.

The assessment process (i.e. determining the management objectives, the criteria, the issues, and the indicators) will be applied before implementation, during the design phase of the NEPA process, prior to initiating EAs and EISs. The very same approach is also necessary, after implementation, during the monitoring stage. The purpose of this application in planning is two fold: (1) it will help clarify preliminary NEPA course of action and (2) it will result in productive resource management in the final phase. Whether pre- or post processing, land managers can now rely on the feedback loop to determine if further action is necessary, or if the management initiatives have achieved their intended purpose (see Feedback Loop) (Shipley Group 2000).

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