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# Partners in Planning for Waterpower & Reservoir Resources

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# The Importance of Reservoirs

What does the Bureau of Land Management (BLM) have to do with building dams? Before a dam affecting Federal lands is built, it is BLM's responsibility to inventory and monitor reservoir resources and to provide reservoir resource planning information. These responsibilities have been delegated by the Secretary of the Interior. BLM and other land management and resource agencies have the opportunity to be proactive in the reservoir planning and review business, and can guide construction sites toward less controversial locations, less expensive alternatives, general public interests, and other agency interests in protecting existing resources.

Reservoirs are created by building a dam to hold water in a natural geographic basin. Their purpose is to capture high streamflows, store water, and then release it at a more desirable time, thus conserving flow in a stream.

Reservoirs provide many local, regional, and national benefits. They can be used for:

- irrigation
- mining
- logging
- interbasin transfers
- off-stream storage
- flood control
- ground-water recharge
- wetlands
- improving water quality
- enhanced fisheries
- additional water for wildlife, stock and fire fighting
- domestic and industrial supplies
- transportation
- recreational opportunities
- scenic values
- hydroelectricity



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# The Reservoir Development Process



## Selecting a Site

Potential economical reservoir sites are dependent on natural physical conditions such as topography, hydrology, and geology, and on reservoir size. Size depends on the amount of control desired, available financing, and political support. When combined, these factors severely restrict reservoir locations. As a result, sites are finite in number, fixed in position, and increasingly scarce.

Site selection is further complicated by the immediate and long-term effects of the reservoir. Resources at a site may potentially be affected at each phase of the reservoir development process:

- During planning, access to the site, drilling, geophysical investigations (which may involve blasting), and mapping may be required.
- Reservoir construction may require timber harvesting, soil and rock removal (with associated blasting), and a construction environment including workers and equipment.
- After construction, timber, wildlife cover, forage, access, and historical and cultural resources may be affected by the presence of the reservoir; existing fish populations may change from stream to lake stock; and the number of visitors attracted for recreation purposes may increase. In addition, resources may be affected by reservoir operations, which control fluctuations of water in the reservoir, amount of water in the stream, and times that water is available.

The Government has been identifying and documenting potential reservoir sites since 1888. Site documentation of the established resource values includes information on location, potential capability, extent, natural physical condition, historical need, effect, and potential of the reservoir.

**BLM's Responsibilities.** Before a reservoir is constructed, an inventory of the affected existing resources is required. The Secretary of the Interior has given BLM full responsibility for performing reservoir evaluations and for providing inventory information to other agencies and the public.



## Resolving Conflicts

When considering development of a potential reservoir site, the value of the site must be weighed against the value of other existing resources. This comparison helps to:

- set priorities
- identify possibilities for reducing the effect on a resource or for enhancing an affected resource
- determine alternative actions
- provide guidance for future actions

Any conflicts that arise must be resolved prior to construction.

**BLM's Responsibilities.** The National Environmental Policy Act requires close cooperation and planning between reservoir proponents and land management agencies. The Secretaries of Agriculture, Defense, and Interior have responsibilities to represent other existing resources to the Federal Energy Regulatory Commission (FERC), Department of Energy. BLM, as well as other land management agencies, has requirements for systematic conflict resolution as part of their land use planning.

## Obtaining a Withdrawal or Right-of-Way

Planning withdrawals for reservoir sites are provided for by the Government. These withdrawals identify the scientifically determined highest land value. They also assure the site is available if and when it is needed by prohibiting the general public from obtaining control of it and prohibiting management practices from ruining it.

During planning, withdrawals are not required; however, withdrawals or rights-of-way must be granted before the land can be occupied for construction. In order to protect their interests, developmental agencies require a withdrawal or right-of-way.

Building a dam on Federal land requires authority to develop waterpower and reservoir resources. The Bureau of Reclamation, the Corps of Engineers, and the Soil Conservation Service were given this authority

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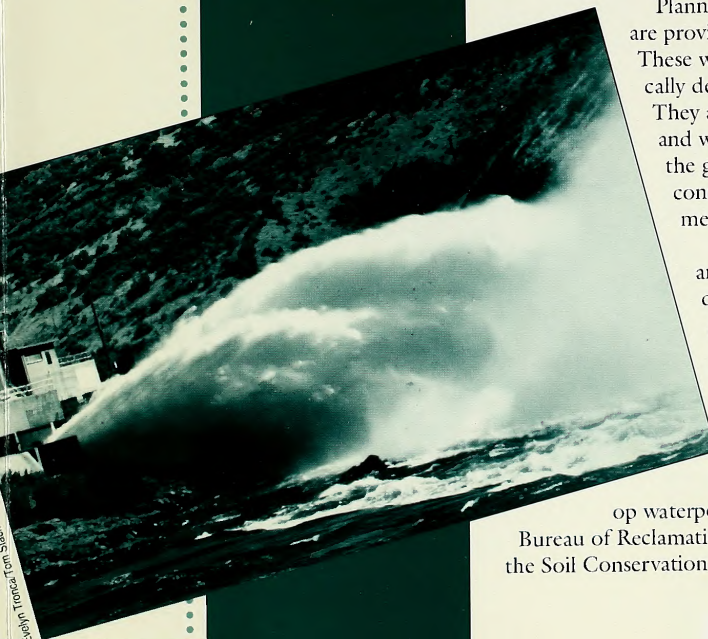


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## Partnership Opportunities

by Congress, based on approval of individual projects. These withdrawals allow them to occupy the land on which to build a dam.

Non-Federal entities may occupy lands by applying to land administration and State agencies to study or construct a dam. Hydroelectric dams must be developed under the direction and authority of FERC. FERC requires an application and compliance with their licensing agreement for dams equipped with hydropower options. This creates an automatic withdrawal. FERC depends heavily upon land management agencies and resource specialists in monitoring construction and operation for compliance. This means that land management agencies have the authority to shape FERC licenses for the protection of other existing resources.

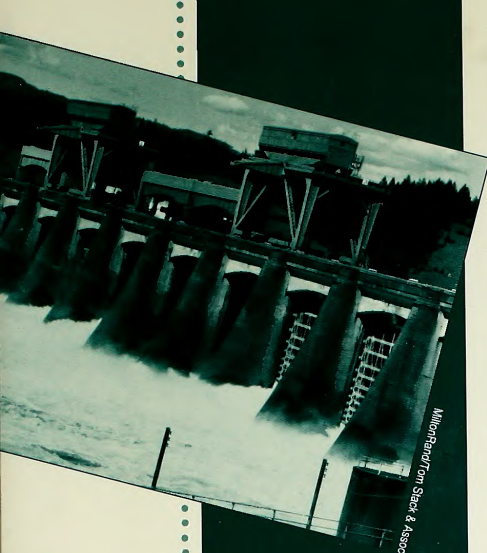
**BLM's Responsibilities.** BLM makes planning withdrawals, which are a form of long-range planning, to keep sites in Federal ownership and control. In order to keep planning withdrawals to a minimum, BLM has been delegated authority to review existing withdrawals, evaluate water development potentials, and make recommendations for change to the Secretary of the Interior. The Secretary has the ultimate decision authority on withdrawals.

While dams and reservoir resources are often considered the responsibility of other Federal agencies, they have the potential to affect nearly every resource managed by BLM. Resource management can be quite complex, due not only to laws and regulations guiding management and protection, but also because of the number of groups involved in the process. For example, some resources are represented by specific bureaus, such as the U.S. Fish and Wildlife Service; some have advocates within land management agencies; and still others have a public association of interested members. Reservoir resources are no exception. Therefore, BLM's partnerships in reservoir development efforts are extremely important, and provide great opportunities for a diversity of groups to become involved in the reservoir development process.

### Resource Specialists

A partnership of resource specialists across agency boundaries can ensure development of a consistent approach, by resource, for other resource protection.





Partnerships in land use planning provide a structured, systematic opportunity to evaluate adverse effects, operational scenarios, and positive opportunities for specific resources prior to an application being filed with FERC. This kind of approach alleviates time constraints and allows for meaningful responses to FERC, and also assists dam developers in planning strategies if sites are identified with resource conflicts.

## Other Agencies

The cycle of BLM furnishing reservoir information, other agencies preparing land use plans and resolving resource conflicts, and then BLM doing withdrawals and withdrawal review requires partnerships to achieve meaningful reservoir resource management. Not only is BLM required to supply minerals resource information to other agencies, but BLM must also make its reservoir information and expertise readily available for each Federal land use planning effort.

## FERC

BLM's identification of reservoir resources has to be coordinated with the regulatory, developmental, and operational responsibilities of FERC. BLM's record keeping, cadastral survey, and withdrawal responsibilities for all land management and development agencies are important for the regulatory compliance of building reservoirs. If previous existing rights, description of location, or status are erroneous, the liability could be large. Opportunities exist for BLM to use automated land and mineral records for reservoir planning, developmental application responses, and Secretarial intervention in FERC licenses.

## The Public

While BLM serves other Federal, State, and local agencies, it also serves the public. The public has a right to know about available reservoir resources, potential effects of reservoirs, opportunities reservoirs present, and alternatives to solving reservoir issues. Associations are often formed to represent public concerns on resource topics, and BLM recognizes such associations as clients. Becoming partners with these associations provides BLM with needed insight, and in turn, allows BLM to maintain communication and contact with the public.



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