
CHAPTER 4

RESOURCE GOALS AND OBJECTIVES

4.1 INTRODUCTION

The policy of Reclamation is to provide public recreational opportunities and facilities in accordance with an approved RMP. The RMP is to include adequate facilities to protect the health and safety of the user and protect land and water resources from environmental degradation. Recreation facilities under Reclamation jurisdiction are to be operated and maintained in a safe and healthful manner.

Where Reclamation lands are directly managed by others for recreation purposes (i.e., Mar Don Resort as a privately owned concessionaire operating under a lease with the State), Reclamation shall exercise oversight responsibility to ensure that those management entities fulfill all aspects of the approved RMP. All contractual agreements with these management entities shall reflect and be consistent with the approved management plan as identified and accepted by Reclamation through completion of the Potholes Reservoir RMP/EIS (Figures 4.1-1 and 4.1-2 “RMP Management Actions”).

4.2 RESOURCE MANAGEMENT GOALS

The purpose of management goals is to establish management direction during the planning period for the RMP. The goals respond to specific issues identified during the scoping period with the public and involved agencies.

The results of previous surveys and inventories were also included in the scoping process. For example, in surveys conducted by the Interagency Committee for Outdoor Recreation (IAC), the public has indicated that water access sites are among the most desired settings. Therefore, IAC tries to place priority funding on projects that serve multiple state objectives including:

- recreation access,
- preservation of habitat, and
- provision of trail opportunities to or along the water.

Six goals were developed from the scoping process and the analysis of recreation facilities and use:

Goal #1 - Provide a balance between recreation and resource protection.

The vast majority of recreation activities occurring at Potholes Reservoir are resource based. As a result, management must attempt to strike a balance between providing the public with recreation opportunities and protecting natural resources. One of the most effective ways to accomplish this goal is to identify the most appropriate locations for each activity type. Therefore, activities that typically create the greatest impacts can be located in less sensitive areas. Managers can then designate limited access to or permit only low impact activities in areas with high resource values.

Goal #2 - Expand facilities and provide access to relieve crowding and congestion.

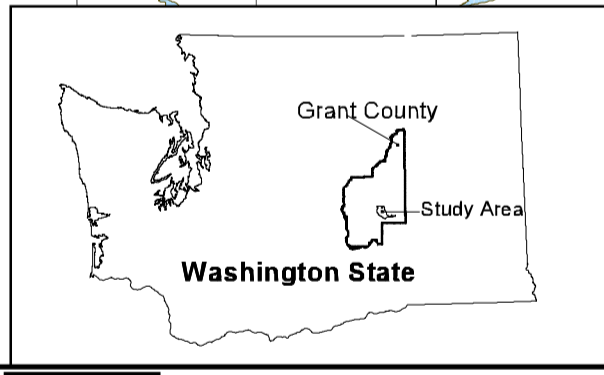
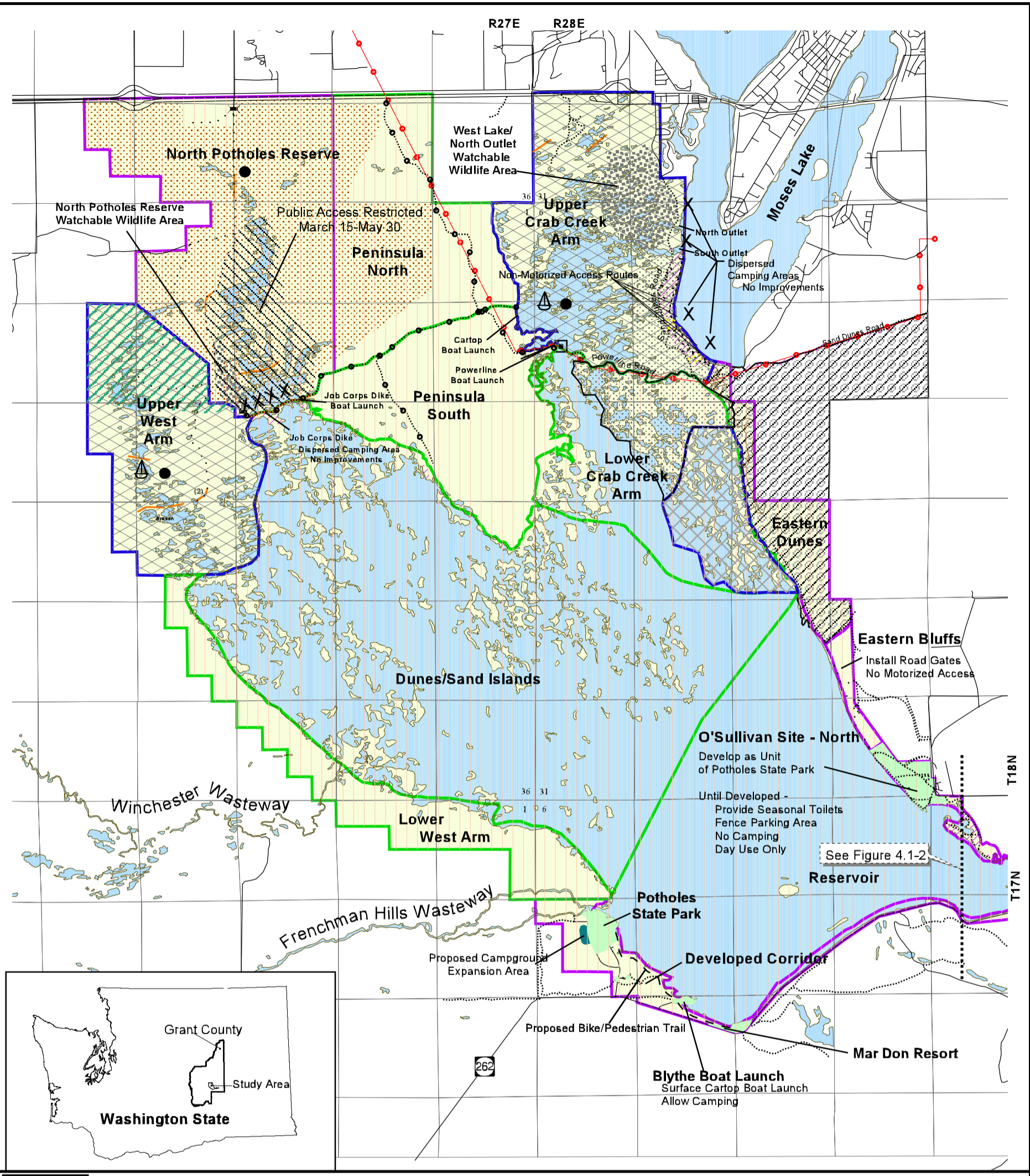
Crowding is often a matter of congestion at key recreation sites such as access points (i.e., boat ramps, trail heads, etc.) or camping sites. Congestion can usually be relieved through expansion of facilities and/or redistribution of visitors. Where appropriate, existing facilities should be improved or expanded. In some cases, improving or redesigning an existing facility can improve the ability of a site to accommodate visitors. In other cases, it may be appropriate to add new facilities in underutilized areas to distribute visitors evenly and to relieve congestion. Conversely, in some circumstances it may be desirable to maintain limited facilities at access points (i.e., controlled number of parking spaces) to discourage overuse of more sensitive areas.

Goal #3 - Provide for public health and safety and consistent enforcement of rules and regulations.

Providing for public health and safety is of primary importance. Visitors to Potholes Reservoir recreate with an expectation of doing so in a reasonably safe and healthy environment. It is essential that Reclamation protect the public from health and safety hazards. Integral to any public health and safety program is a viable law enforcement program. Laws and regulations protecting both the public and the resources of the area should be consistently and effectively enforced throughout the RMP area. Inadequate or inconsistent enforcement places public safety at risk, sends mixed messages about the importance of protecting the area's resources, and often undermines management effort to protect both visitors and resources within the RMP area.

Goal #4 - Maintain current diversity of recreation opportunities.

A wide variety of land-based recreational activities are practiced at Potholes Reservoir. Pressure for more recreational opportunities has increased in recent years and is expected to continue.

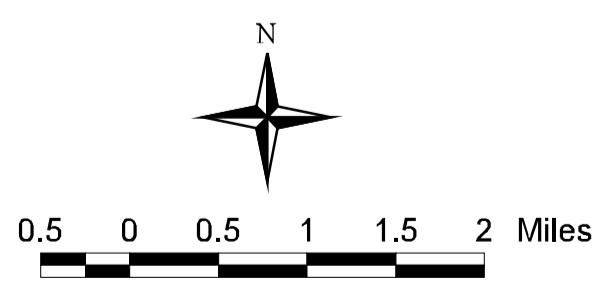


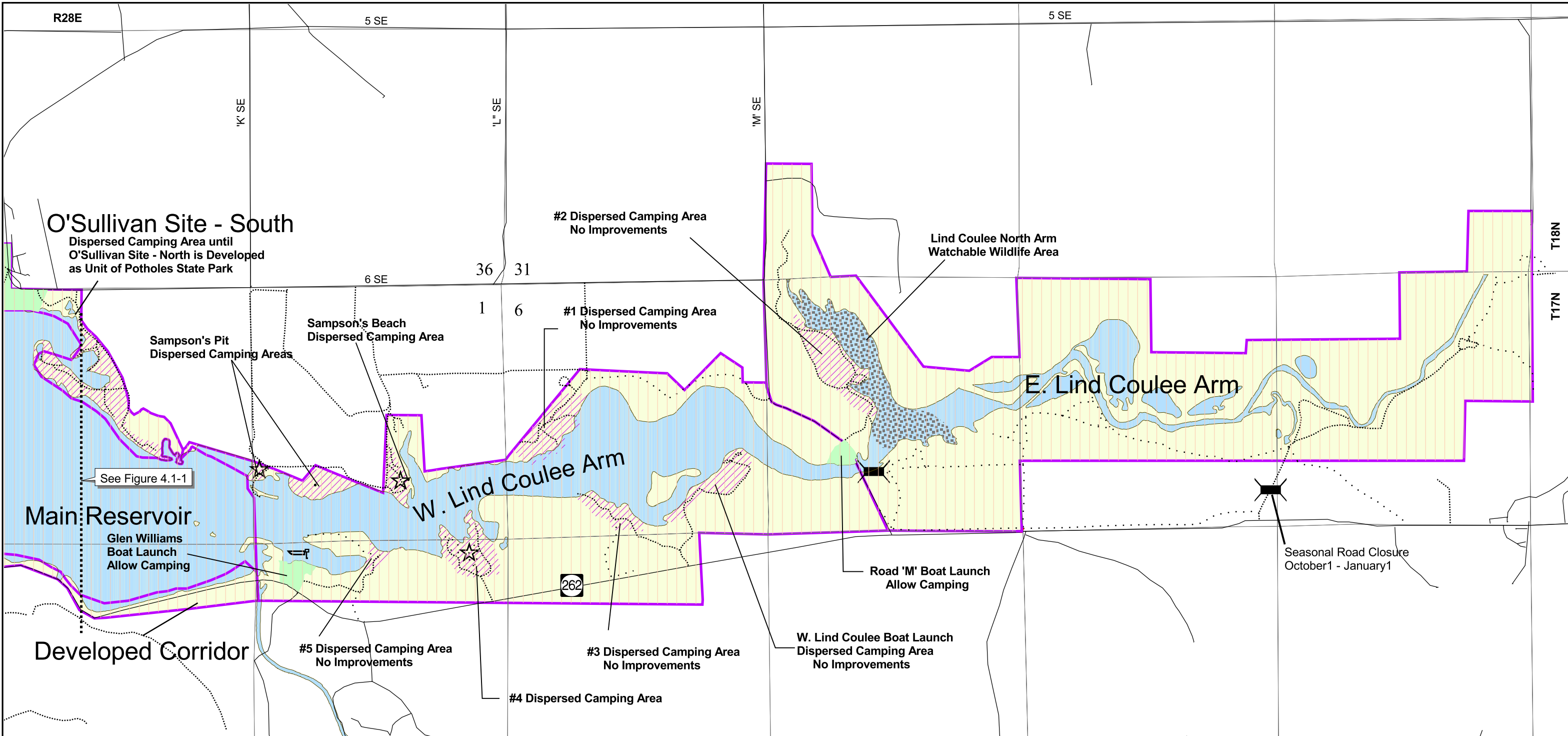
RMP Management Actions - Potholes Reservoir RMP Figure 4.1-1

- | | |
|---|---------------------------------|
| RMP Study Area | Dikes |
| Management Areas | Powerline |
| Habitat Management Areas | Install Vault Toilet |
| Grant County ORV Area | Provide Seasonal Toilets |
| ORV Use Area Open Year-Round | Provide Courtesy Dock |
| ORV Use Area Closed Year-Round | |
| ORV Use Area Seasonally Open (July 1 - October 1) | Roads |
| Minimum Wake March 15 - June 30 | Highway/Improved Roads |
| No Motorized Watercraft | Primitive (Closed) |
| Enhance Diking System | Primitive (Open) |
| Designated Dispersed Camping Areas | ORV Trails |
| Dispersed Camping Areas | Gate |
| Closed Year Round | Watchable Wildlife Areas |
| Open Year Round | North Potholes Vehicle Route |
| Seasonally Open (Closed March 15-June 30) | Open Access |
| Designated Dispersed Camping Areas | Restricted Access |
| Grazing Permit TP-01 | Developed Recreation Area |
| Seasonal Grazing March 15 - April 15 | |
| Seasonal Grazing November 1 - March 15 | |

RMP Management Actions

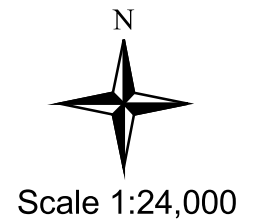
Potholes Reservoir Resource Management Plan





RMP Management Actions Potholes Reservoir Resource Management Plan

- | | | |
|---------------------------|--|------------------------|
| RMP Study Area | Dispersed Camping Areas | Roads |
| Management Areas | Closed Year-Round Except In Designated Areas | Highway/Improved Roads |
| Watchable Wildlife Areas | Designated Dispersed and Primitive Camping Areas | Primitive (Closed) |
| Developed Recreation Area | Misc. Improvements | Primitive (Open) |
| | Provide Seasonal Toilets | Gate |
| | Provide Courtesy Dock | |



**RMP Management Actions - Potholes Reservoir RMP
Figure 4.1-2**

Opportunities for visitors to participate in a variety of recreation activities should be maintained. Managers must optimize the use of their recreational resources. Many of the recreational activities occurring around Potholes Reservoir are inherently conflicting in nature. Often the only way to reduce or eliminate these conflicts is through spatial or temporal separation. This can be accomplished by identifying which areas are appropriate for each activity opportunity. By zoning the RMP area into classes and clustering compatible uses into the most appropriate area, the diversity of activities can be maximized while eliminating or reducing conflict and resource impacts. The intent of this goal is to ensure that visitors have a variety of recreation opportunities to choose from, while maintaining participation in activities that are currently predominant in the area.

Goal #5 - Maintain facilities and recreation use areas consistently throughout the RMP area.

Facilities and recreation use areas should be maintained consistently throughout the RMP area. Visitors to Potholes Reservoir should see no maintenance differences as they move across administrative boundaries. As the parent agency, Reclamation exercises oversight responsibility to ensure consistent and coordinated maintenance throughout the RMP area. Consistent and coordinated maintenance should also be a stipulation in Reclamation's land use leases.

Goal #6 - Identify and implement supplemental means of funding and manpower.

Appropriate funding for resource protection and for providing recreational resource opportunities to the public is the essential element to achieve the goals of this RMP. Funding challenges are compounded by the rapid and continuing growth in demand for resource based outdoor recreation opportunities. Funding for management and maintenance of resource based recreation has not kept pace with this explosion in demand. Managers must be proactive in developing ways of supplementing funding and manpower if they are to be successful in their assigned mission. Managers should be encouraged to be innovative in developing alternative, supplemental sources of funding and manpower to include donations, partnerships, volunteers and grants. The implementation of special user fees should also be explored when and where appropriate.

4.3 GENERAL MANAGEMENT STRATEGIES ASSOCIATED WITH THE RMP

Four general management strategies, meeting the resource management goals, were developed and applied to the RMP recommended action for (1) no motorized access, (2) managed/limited motorized access, (3) recreation sites and improvements, and (4) resource protection enhancement. Each of these strategies specifically involve the following:

4.3.1 No Motorized Access

- Close the western portion (about 0.7 miles) of Powerline Road and **919 acres of the Lower Crab Creek management unit** to motor vehicle travel/ORV use except for maintenance, administrative and emergency purposes. Approximately 18.4 miles of primitive road would be permanently closed to motorized travel.
- Install road gates, fencing, signs, and/or buoys as needed to enforce seasonal and permanent closures.

4.3.2 Managed/Limited Motorized Access:

- Maintain 41.9 miles of the primitive/gravel road network open year-round or seasonally to discourage random motor vehicle travel.

4.3.3 Recreation Sites and Improvements

- Provide permanent or portable toilets in high use dispersed camping areas where human wastes pose a public health or environmental hazard.
- Construct trails and boardwalks to control public access and foot traffic through wetland and riparian habitats in high use recreation areas (i.e., within the Developed Corridor).
- Perform minor road improvements (i.e., grading and/or the placement of gravel) as needed to improve vehicular access and/or reduce soil erosion and public safety concerns where continued primitive road access is desirable.

4.3.4 Resource Protection and Enhancement:

- Increase the public's awareness of WDFW's "pack-in/pack-out" policy and other waste management strategies. Post "pack-in/pack-out" signs at all high public use areas, dispersed camping areas, boat launches, etc.
- Seek funding and partnerships for additional staff, equipment, and/or contract services to meet reservoir-wide waste management needs, toilets and trash cleanup.

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- Control dispersed camping in environmentally unsuitable or sensitive areas through appropriate access restrictions, seasonal use restrictions, or closure. Manage this use according to the “Camping” actions described below in Section 4.4.3.
 - Seasonally restrict watercraft to low speed/minimum wake operation and prohibit dispersed camping (except in designated areas or sites) in Habitat Management Areas (HMAs) from March 15 through June 30 to enhance wildlife nesting and breeding success.
 - On the basis of the information gathered, the management agencies would amend or rescind existing management strategies or actions to balance public recreation and resource protection policies, goals and objectives. Opportunities for public review and comment would be provided prior to adopting and implementing any management changes affecting public use.
 - Manage/limit dispersed camping and/or public access with gates, fencing, signs and/or buoys as needed to seasonally or permanently close roads and/or areas to motorized travel where resource protection and enhancement needs have been identified.
 - Prohibit the discharge of firearms in areas of wildlife species conflicts or for reasons of public safety in the Lind Coulee Arm, watchable wildlife areas, and other high use public recreation areas except during the primary hunting season.
 - Monitor resources effected from motorized access, dispersed recreation and camping, and public use on an annual basis. If the Limits of Acceptable Change (LAC) process and monitoring reveals that impacts and action thresholds have been exceeded, the WDFW, SPRC, and Reclamation would explore and prescribe alternative management actions for resolving the problems and revising the management direction.

The following sections outline resource specific management actions developed to achieve the Desired Condition for the Potholes Reservoir Management Area.

4.4 RECREATION ACTIVITIES

The RMP provides for limited recreation development and the maintenance of existing recreation facilities and opportunities to a standard that protects the public and public investment while achieving resource protection objectives. Future developed recreation areas will be limited to Potholes State Park and O’Sullivan Site - North where a higher level of site and facility development will be provided by the SPRC.

Dispersed camping will continue to typify public recreation on lands administered by the WDFW. However, the direct and indirect environmental effects often associated with dispersed use (i.e., soil erosion and compaction, littering, improper human waste disposal, vegetative damage, wildlife disturbances, and indiscriminate motorized travel in adjacent areas) will be controlled by directing use to specific areas or sites designated “open” for dispersed use. These areas were selected through the environmental assessment process due to their suitability for public use with minimal resource conflict or environmental effect.

**Table 4.4-1
General Recreation Resource Management Goals and Actions**

RMP Recreation Opportunity Goals	Management Action
<p>Maintain the current character of recreation at Potholes Management Area by providing a diverse range of quality recreational opportunities within the carrying capacity of the natural resources.</p>	<p>Retain Diversity - retain the current diversity of recreational activities as listed:</p> <ul style="list-style-type: none"> S Hunting <ul style="list-style-type: none"> duck and goose hunting upland gamebird hunting carp bow hunting S Fishing <ul style="list-style-type: none"> recreational competitive tournaments (with management controls) guided sport fishing commercial carp fishing S Boating <ul style="list-style-type: none"> recreational, non competitive S PWC <ul style="list-style-type: none"> recreational, non competitive S Off Road Vehicle (ORV) activities <ul style="list-style-type: none"> recreational (with management controls) S Water skiing S Camping <ul style="list-style-type: none"> recreational in developed campsites, no long-term recreational dispersed in certain undeveloped areas S Picnicking S Bird Watching S Hiking

Table 4.4-1
General Recreation Resource Management Goals and Actions

RMP Recreation Opportunity Goals	Management Action
	<p>S Parasailing recreational, noncommercial</p> <p>S Diving recreational, noncommercial</p> <p>S Swimming</p> <p>S Sunbathing</p> <p>Manage Numbers - Manage the number of visitors within Limits of acceptable use.</p> <p>Retain Predominance - Retain the current predominance of recreational uses to the extent feasible, so that major uses continue to be major uses where not limited by expansion of new or minor uses.</p> <p>Identify Dispersed Recreation - Identify, designate and manage specific areas for dispersed recreation use. Monitor impacts at these areas and modify use and management approach if impacts become unacceptable.</p> <p>Evaluate Impacts - Evaluate resource impacts of existing ORV use on Reclamation lands to assure that continued use is consistent with Reclamation policy.</p> <p>Evaluate ORV Use - Evaluate potential for ORV use of Reclamation lands adjacent to existing ORV area consistent with Reclamation policy.</p> <p>Evaluate Proposal for Modified ORV Areas - Evaluate a specific proposal advanced by Grant County ORV clubs for modification of areas allowed for seasonal ORV use and associated development.</p> <p>Develop New Facilities - Generally, develop new facilities in close proximity to existing facilities, except for those facilities that may be needed to reduce impacts to areas of dispersed use.</p> <p>Fee Structure - Identify and implement a fee structure, within</p>

**Table 4.4-1
General Recreation Resource Management Goals and Actions**

RMP Recreation Opportunity Goals	Management Action
	<p>current legal authorities, to generate additional revenues for SPRC and WDFW operation, maintenance, and management functions.</p> <p>Address Congestion - Coordinate and work with the Washington Department of Transportation (WDOT) to address congestion problems along State Route 262 during peak recreation periods.</p> <p>ADA Accessibility - Provide accessible facilities for persons with disabilities in all new developments or redevelopments as required by Section 504 of the Architectural Barriers Act.</p> <p>Provide Fishing Jetty - Provide a fishing jetty or breakwater for the physically challenged in Potholes State Park.</p> <p>Provide Additional Campsites - Provide additional campsites and associated facilities within Potholes State Park.</p> <p>Dispersed Recreation in the Sand Dune Islands - Continue to manage the Dunes/Sand Islands management area for dispersed recreation (e.g., camping, wildlife observation, picnicking, and sunbathing). No recreation improvements or sanitation facilities would be provided and trash would continue to be managed under a “pack-in/pack-out” policy.</p> <p>Continued Hunting Consistent with Existing Regulations - Hunting would continue to be allowed on all Reclamation lands consistent with existing State and local regulations. Public hunting and trapping are currently allowed throughout the Potholes Reservoir Management Area except within North Potholes Reserve and Potholes State Park. If human waste and trash disposal becomes a significant public health concern in the future, area and site closure, seasonal portable or floating toilets, and/or other management strategies would be examined by the WDFW and Reclamation and corrective action(s) taken. Opportunities for public review and comment</p>

Table 4.4-1
General Recreation Resource Management Goals and Actions

RMP Recreation Opportunity Goals	Management Action
	<p>would be provided prior to adopting and implementing any management changes affecting public use.</p> <p>Construct Bicycle/Pedestrian Trail - Work with the WDOT to complete a 1.7 mile asphalt-surfaced bicycle/pedestrian trail between Potholes State Park and O'Sullivan Dam (see Figure 2-2.1). This phase of the trail would link the Mar Don Resort and Potholes State Park.</p>
<p>Provide appropriate support services, facilities and regulations to enhance the quality and safety of recreation at Potholes Reservoir and fulfill unmet needs.</p>	<p>Consider Developed Expansion - Consider expanding state park land and construction of additional camping areas, dependent on results of a needs analysis, to relieve pressure on undeveloped areas.</p> <p>Determine Litter and Waste Areas of Concern - Determine areas where lack of refuse containers and sanitation facilities are areas of concern and are impacting visual aesthetics, human health, and wildlife health and habitat.</p> <p>Develop Funding to Increase Sanitary Facilities - Seek or develop funding sources to increase sanitary facilities and refuse containers in the Sand Island areas, open water areas and other dispersed use areas thereby reducing the potential for impact on water quality and human health.</p> <p>Encourage Volunteer Cleanup - Encourage volunteer cleanup projects by user groups in high use areas such as those projects that take place in the ORV area.</p> <p>Litter Enforcement - Increase monitoring and enforcement of litter laws.</p> <p>Designate Public Swimming - Provide designated public swimming areas at the Potholes Reservoir away from the boat docks where swimming presently occurs. Assess use of the O'Sullivan Site area which has been suggested for a designated swimming area.</p>

**Table 4.4-1
General Recreation Resource Management Goals and Actions**

RMP Recreation Opportunity Goals	Management Action
	<p>Establish No-Wake Zone - Consider a near-shore buffer/no-wake zone in Potholes Reservoir to mitigate conflict among fishermen, recreational boaters, PWC users, swimmers and water-skiers who all desire use of near shore areas for their activities. The no-wake zones may also reduce shoreline erosion caused by wave action, reduce impacts to fish nests and spawning habitat, and reduce wildlife impacts such as unintentional flooding of bird nests.</p> <p>Manage Dispersed Camping in ORV Areas - Devise a management strategy in conjunction with Grant County for the significant number of individuals camping in the existing ORV area at the northeast part of the reservoir. The strategy needs to deal with the availability of sanitation facilities, refuse containers and control of ORV access into environmentally sensitive areas.</p> <p>Coordinate ORV Management with WDFW - Coordinate ORV management strategy with the WDFW to provide a mechanism to assure protection of wildlife and habitat in the Upper and Lower Crab Creek Arms.</p> <p>Manage Dispersed Camping - Develop management strategies to mitigate the environmental effects of significant random camping in the Sand Island areas, as well as at O'Sullivan Site and the Job Corps Dike area.</p> <p>Establish Litter Control - Establish a "pack-in/pack-out" regulation for dispersed use areas.</p> <p>Designate Multi-Use Trails - Designate and maintain multi-use trails to minimize resource damage.</p> <p>Identify Safety Concerns - Identify and restrict public access to areas that present safety concerns.</p> <p>Identify Appropriate Use Restrictions - Identify and develop appropriate use restrictions for recreational and other activities. Limitations may affect: useable portions of the</p>

**Table 4.4-1
General Recreation Resource Management Goals and Actions**

RMP Recreation Opportunity Goals	Management Action
	<p>Potholes Reservoir Management Area where the activity is allowed; season when the activity is allowed; time of day when the activity is allowed, etc. Such restrictions shall be developed only as necessary to protect or enhance the environment, fish and wildlife habitat, human health and safety, or the quality of the recreational experience.</p> <p>Consider Boat and PWC Restrictions - Consider potential restrictions on full power boat and PWC operation in the near vicinity of O'Sullivan Dam to help prevent serious accidents due to collision with submerged rocks.</p> <p>Limit Agency Liability - Review CBP authority, liability and insurance considerations associated with providing a designated swimming area, and allowing sponsored recreational events such as tournaments, races, etc., to limit the potential liability of Reclamation, Irrigation Districts, the State of Washington, or Grant County.</p>
<p>Provide an appropriate range of information materials to increase public awareness of recreational opportunities, use restrictions, safety concerns, and natural and cultural resource values.</p>	<p>Hazardous Boating Education - Educate the public on the presence of submerged boating hazards due to reduced water levels. As a general policy, such hazards are not marked in non-navigable (by definition) waters.</p> <p>Regulation Education - Educate the public on “pack-in/pack-out” ethic or regulations, fishing regulations, hunting regulations, boating regulations and camping regulations.</p>

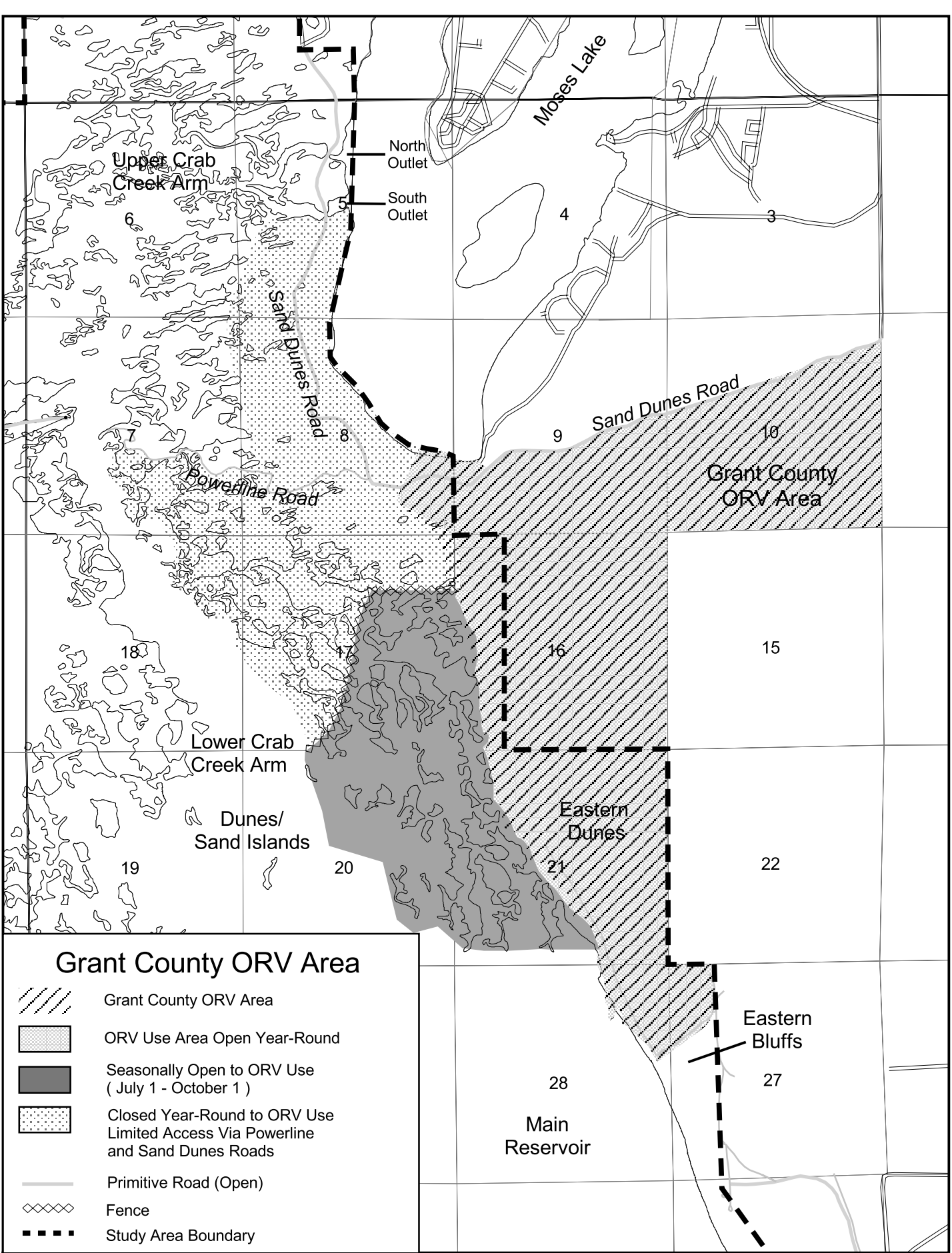
4.4.1 ORV Use

ORV use attracts upwards of 3,000 visitors on Memorial Day weekend (WDFW estimate). The heavy dune buggy and 4 x 4 use during holidays and weekends results in increased conflict between ORV user groups. The RMP recommends the Grant County ORV Area consist of 1,895 acres open year round and 539 acres of limited seasonal use. The estimated total acreage will encompass approximately 2,434 acres located inside and outside the RMP management area (Figure 4.3-1 “Grant County ORV Area”).

To be an effective management plan, user groups should be encouraged to participate in all appropriate management activities. The responsible land managers should coordinate with groups, such as the Sand Commandos and IAC, in cooperative management of the ORV use area.

**Table 4.4-2
Recreation Resource Management Goals and Actions for ORV Use**

RMP ORV Use Goals	Management Action
Maintain and Enhance ORV Recreational Opportunities within Potholes Reservoir.	Patrol and Monitor ORV Use - Cooperate with the Grant County Sheriff’s Office to patrol and monitor ORV use and environmental resource conditions and trends within the Grant County ORV Area. Control or eliminate ORV use and/or motorized travel in environmentally sensitive areas. Restore Vegetation - Restore and revegetate severely damaged areas closed to ORV use. As part of the restoration effort, locate and develop an interpretive trail in the ORV area to illustrate habitat restoration. Define and Improve ORV Use Areas - Fence the east side of Sand Dunes Road between South Outlet and Powerline Road to prevent indiscriminate ORV entry. Provide four hard-surfaced roadside turnouts along the east side of the Sand Dunes Road for vehicle and ORV parking. At each turnout, a nonmotorized access route would lead to a designated dispersed camping area adjacent to Moses Lake located northeast of the Potholes Reservoir Management Area. Motorized use of these access routes would be limited to administrative and emergency use only.



Grant County ORV Area Figure 4.3-1

**Table 4.4-2
Recreation Resource Management Goals and Actions for ORV Use**

RMP ORV Use Goals	Management Action
	<p>Update ORV Signage - Update signs and maps (and post additional signs along Sand Dunes Road) to improve public awareness of ORV Area boundaries, regulations, and riding and camping opportunities. All Reclamation lands are closed to motorized travel except for those roads and areas designated “open” for such use.</p>

4.4.2 Personal Watercraft and Motorized Boats

Impacts to shoreline habitats occur from boat wakes. Grant County currently has no ordinance that specifically addresses or defines a “No Wake Zone” on Potholes Reservoir. To date, the Grant County Sheriffs Department has enforced an unofficial No Wake Zone based on safety issues related to boat operations near shore, such as operating boats in an unsafe manner and towing water skiers near shore (Grant County Ordinance #6.08, revised 1994). Thus far, boat wake enforcement has not been for resource protection purposes.

4.4.3 Camping

Dispersed, unregulated camping is common throughout the Potholes Reservoir Management Area. To better manage this activity, areas of the reservoir should be specifically designated for dispersed camping. These designations should be mapped and publicly available at information kiosks near boat launches, at Mar-Don Resort, and on a public bulletin board displayed at Potholes State Park. Dispersed camping should be seasonal in nature (closed during shorebird nesting periods) with the Grant County Sheriff to enforce violations. “Pack-in/pack-out” trash policies should be strictly enforced with enclosed sanitation devices required.

**Table 4.4-3
Recreation Resource Management Goals and Actions for Camping**

RMP Camping Goals	Management Action
<p>Control dispersed camping by limiting and directing use to “designated” areas or sites.</p>	<p>Monitor Impacts - Annually monitor the impacts associated with dispersed camping and recreational use. Establish baseline data and photo points to determine recreational impacts on soil, water quality, and vegetative and habitat resources. If “Limits of Acceptable Change” (LAC) monitoring reveals that impact/action thresholds have been exceeded, the WDFW and Reclamation would explore and prescribe alternative management actions for resolving the problems and revising the management direction. Opportunities for public review and comment would be provided prior to adopting and implementing any management changes affecting public use.</p> <p>Sanitary Waste Disposal - Provide centrally located toilets (permanent or seasonal) to meet human waste disposal needs in high use areas.</p> <p>Limit Camping Stays - Adopt and enforce a reservoir-wide 15-day stay limit for dispersed camping, unless posted otherwise.</p>

4.5 PUBLIC HEALTH AND SAFETY/ENVIRONMENTAL PROTECTION

Recreational boating and jet ski enthusiasts are interfering with fishing tournaments, disrupting leisure fishing, and causing tension between the two groups. Increased law support by the Grant County Sheriff’s Department is needed to provide adequate enforcement of reservoir use rules and regulations. In particular, enforcing a No-Wake Zone near shoreline developments and recreation areas could be effective in minimizing conflicts with swimming, shore fishing, and other passive uses. Thus, reducing erosion effects and noise, and prohibiting people from boating in sensitive areas (i.e., the sand dunes where shorebirds nest) or wildlife refuge management areas.

**Table 4.5-1
Public Health & Safety Management Goals and Actions**

RMP Public Health & Safety Goals	Management Action
<p>Minimize conflicts and promote safety for users of Potholes Reservoir.</p>	<p>Promote Boater and PWC Safety - The number of complaints between boating and PWC enthusiasts has increased significantly in the last two years. Much of this user conflict also creates additional safety hazards throughout the reservoir. To promote boater and reservoir user safety, it is recommended that managers restrict swimming in boat launch areas by posting signage and establishing designated (buoyed) swim beaches away from boat launch areas.</p> <p>Special Event Management - Establishing designated use zones during special events (such as bass tournaments) or restricting specific areas of the reservoir from motorized use could help resolve user conflicts.</p> <p>Provide Information to Reservoir Users - In order to educate users about use designations, upon payment of boat launch fees, managers should disseminate information to reservoir users regarding known reservoir hazards, boating safety and operating rules and other regulations.</p> <p>Provide Boater Signage - Signs should be posted that require boats to use running lights before sunup and after sundown.</p> <p>Identify Safety Concerns - Identify and restrict access to areas that present public safety concerns.</p> <p>Control Dispersed Camping - Control dispersed camping in environmentally sensitive areas with appropriate site improvements, access and seasonal restrictions, or site closure.</p> <p>Submit Necessary Environmental Reports - Prior to any action which would modify the environment, the State will submit any necessary environmental reports as directed by Reclamation. Reclamation will be responsible for compliance with the NEPA. No such modification of the environment will be authorized without written approval from Reclamation.</p>

**Table 4.5-1
Public Health & Safety Management Goals and Actions**

RMP Public Health & Safety Goals	Management Action
	Encourage Volunteer Effort - Encourage volunteer efforts to accomplish resource management programs and objectives. Work with user groups, clubs, and civic organizations to promote volunteer cleanup projects and a “pack-in/pack-out” ethic.

The following sections focus on those portions of the environment that are directly related to the conditions being addressed by the recommended action. The description is not meant to be a complete portrait of the Potholes Reservoir Management Area but is intended to portray the conditions and trends of most concern to the public, Reclamation, and their management partners within the RMP area.

4.6 LAND USE

The Potholes Reservoir Management Area encompasses approximately 36,200 acres of land (18,500 acres) and water (17,700 acres). Of this total, an estimated 34,920 acres are under Reclamation’s jurisdiction with the remaining acreage under the jurisdiction of the WDNR.

Although the lands and waters under Reclamation jurisdiction were transferred to the State of Washington for administration and management under a MOA with the United States, Reclamation maintains a basic interest in the uses authorized on them. Reclamation’s continued interest and involvement insure that (1) nothing is done which conflicts with the primary purposes of the project, and (2) the land receives proper use in accordance with appropriate land management principles and practices.

Reclamation’s Ephrata Field Office is responsible for providing the oversight and approval of proposed land use activities on Reclamation properties within the Potholes Reservoir Management Area. The SPRC and WDFW are the state agencies currently responsible for most of the day-to-day activities and decisions which directly affect the management area. Of the 34,920 acres under Reclamation jurisdiction, approximately 6,620 acres (18 percent) were withdrawn from the public domain and

28,300 acres (81 percent) were acquired in fee title for the construction and operation of Potholes Reservoir and other CBP purposes.

**Table 4.6-1
Land Use Administration Management Goals and Actions**

RMP Land Use Administration Goals	Management Action
Assure that adjacent land uses are compatible with the desired recreational and wildlife uses in the Potholes Reservoir Management Area	<p>Minimize Potential Land Use Interference - Propose future development in a way which minimizes the potential interference with the function of existing and planned land uses.</p> <p>Protect Water Resources - Manage lands to protect water resources.</p> <p>Benefit Wildlife Habitat - Land use decisions on wildlife areas will be based on benefits to wildlife and habitat.</p>
Coordinate land use plans with Grant County to address ORV use.	Review Reclamation Policy - Review Reclamation policy as well as the impact on the environment to determine if additional land will be permitted or if presently-permitted land will be removed from use.
Coordinate with Grant County on implementation of its sensitive areas ordinance on lands adjacent to the Potholes Reservoir Management Area.	County Coordination - Coordinate with Grant County to acknowledge and address county ordinances applicable to the management area.
Maintain the partnerships and management agreements needed to implement the Potholes Reservoir RMP.	<p>Meet 1968 Contractual Obligations with Irrigation Districts - Continue to meet all contractual obligations of the 1968 contracts between the US and the CBP irrigation districts.</p> <p>Operate in Accordance with 1943 CBP Act - Continue to operate Potholes Reservoir in accordance with Reclamation law and the CBP Act dated March 10, 1943 (Chapter 14, 57 STAT, 14).</p> <p>Continue Cooperation with MOA - Continue to administer Reclamation lands and waters through an updated MOA</p>

**Table 4.6-1
Land Use Administration Management Goals and Actions**

RMP Land Use Administration Goals	Management Action
	<p>between the US and the State of Washington. Day-to-day resource and recreation management activities will continue to be provided by the SPRC and WDFW with oversight by Reclamation.</p> <p>Continue Lease Program - Continue the 52-acre agricultural lease program in the Lind Coulee Arm for the benefit of wildlife. The purpose of the lease program (to produce food and cover for wildlife and manage the land for continued multi-purpose recreation), the existing prohibition on livestock grazing, and the requirement to keep the land open at all times for lawful public hunting and other recreational uses will be retained in all new or renewed leases. Lease administration will remain with the WDFW.</p> <p>Renew Recreational Lease Agreement Between SPRC and WDNR - Renew the 30-acre recreational lease agreement between the SPRC and the WDNR to operate and maintain a recreational resort on Reclamation land. The existing Mar Don Resort occupies both Reclamation and WDNR lands and is operated under a lease agreement (No. 62395) issued and administered by the WDNR.</p> <p>Update 1997 MOU Between WDFW and the County - Update the 1997 MOU between the WDFW and Grant County Mosquito Control District #1 to reflect changes in resource needs (i.e., leopard frogs) and mosquito control technologies. Reclamation should review and agree with the changes in the MOU scheduled for 2002. Under the existing MOU, the District has agreed to prepare a “Master Plan” outlining their annual spraying operations and to use biological pesticides as their primary pesticide. The WDFW has agreed to mark protected waters with buoys.</p> <p>Continue Integrated Mosquito Control - Continue integrated pest management for mosquito control in</p>

**Table 4.6-1
Land Use Administration Management Goals and Actions**

RMP Land Use Administration Goals	Management Action
	<p>accordance with an updated and renewed MOU. WDFW's goal is to avoid or minimize the use of chemical controls that could impact non-target species important to the food chains of local fish and wildlife species.</p> <p>Fire Protection Contract Between WDFW and the County - Continue fire protection at Potholes Reservoir under the fire protection contract between the WDFW and Grant County Fire Protection Districts 4, 5 and 11.</p> <p>Prohibit Houseboat Use - Prohibit houseboats in any environment at Potholes Reservoir. No houseboat is permitted in any environment under the Grant County Shorelines Management Master Program, dated June 1975.</p> <p>Eliminate Unauthorized Use - Identify and abate unauthorized uses and trespass violations on Reclamation lands. Based on regular surveillance of lands and resources where a high probability of unauthorized uses exist (i.e., adjacent to private croplands), detect, confirm and abate, all unauthorized uses or trespass violations.</p> <p>Coordinate with County Planning Efforts - Coordinate, to the extent practicable, Potholes Reservoir land use activities and plans with Grant County planning efforts (e.g., Comprehensive Plan and Shorelines Master Program) and ordinances.</p> <p>Ensure Consistent Concession Contracts - For all commercial activities on Reclamation lands, insure all new or renewed concession contracts issued by the State are consistent with the directives and standards outlined in Reclamation's concessions management policy for non-federal managers (as directed in Departmental Manual LND 04-02). The State is required to receive a fair market return of revenue under this policy.</p>

Table 4.6-1
Land Use Administration Management Goals and Actions

RMP Land Use Administration Goals	Management Action
	<p>Limit Concession Administration - Limit concession contract administration by the SPRC to SPRC administered lands; WDFW lands administered by Reclamation.</p> <p>Amend MOAs to reflect Lead Agency Authority - Amend land use agreements (MOAs) between the WDFW and SPRC to reflect current “lead agency” management and jurisdictional authorities.</p> <p>Establish WDNR Guidelines - Continue discussions with the WDNR to establish guidelines for land use activities on WDNR-leased lands.</p>

4.6.1 Access

Table 4.6-2
Land Use Access Management Goals and Actions

RMP Land Use Access Goals	Management Action
<p>Evaluate, enhance and manage vehicle, boater and pedestrian access to the Potholes Reservoir with regard to recreation, protection of cultural resources, wildlife management and operational needs in accordance with Americans with Disabilities Act (ADA) guidelines.</p>	<p>Negotiate with State Highway Department - Enter into negotiations with the state highway department to address engineering of measures to alleviate congestion along State Route 262 that occurs during high-use periods due to lack of engineered safety features, such as walkways and overpasses.</p> <p>Provide Adequate Boat Access - Provide adequate boat launch access and availability at all water levels. Identify potential new access sites and improvements needed at existing launch sites.</p> <p>Provide Effective ADA Access - Provide effective reservoir bank and boat launch access for the disabled by developing and implementing design guidelines in conformance with ADA guidelines for access areas.</p>

4.6.2 Management and Infrastructure

When management responsibilities are transferred from one government agency to another, or involve interagency coordination, a MOA is the instrument typically used. Since the creation of Potholes Reservoir, two MOAs have provided the underlying framework used by Washington State to administer and manage the RMP management area.

Memorandum of Agreement between the United States and Washington State

Under the terms of a 50-year MOA dated July 10, 1952, between the United States and the State of Washington, the state assumed management responsibility for the recreational, fish, and wildlife resources occupying Reclamation lands and waters at Potholes Reservoir. The SPRC and WDFW are the principle state agencies responsible for managing essentially all Potholes Reservoir land use activities until the MOA terminates in 2002.

Under the MOA, Reclamation retains primary jurisdiction over developments within the Reclamation Zone for Potholes Reservoir. The Reclamation Zone includes all lands on which O'Sullivan Dam and their appurtenant works are situated, and that portion of the reservoir area generally lying within a strip 200 feet in horizontal width above the reservoir's full pool elevation of 1,046.5 feet. Such jurisdiction is maintained by Reclamation for the purpose of insuring proper operation and protection of the reservoir. All developments and actions affecting lands within the Reclamation Zone must be approved by Reclamation.

As a guide to the administration of the area, the MOA requires the state to prepare development plans within the reservoir area. Such plans are to be submitted to the Reclamation for review and for consultation with the NPS and the USFWS. The state may build and maintain any facility or service for recreation purposes and may set aside lands as refuges for wildlife or public shooting grounds. All such actions and developments, however, require prior approval by Reclamation.

The MOA empowers the state to issue and administer licenses, permits, and concession contracts for the purpose of providing commodities and public services at the reservoir. All licenses, permits and contracts are submitted and approved by Reclamation before issuance. The MOA also empowers the state, within the limits of its jurisdiction, to make and enforce rules and regulations for the use of the reservoir area as necessary to protect public health and safety; to protect plants, fish and wildlife; and to preserve the scenic, scientific, aesthetic, historic, and archaeological resources of the area.

The state is required to report its revenues from licenses, permits and concession contracts, and its expenditures of such receipts for area administration. Any surpluses of such receipts over expenditures are transferred to the United States.

Memorandum of Agreement between State of Washington Department of Game and State of Washington State Parks and Recreation Commission

Under a MOA dated July 15, 1952 between the WDFW (formerly the Department of Game) and the SPRC, all lands transferred from the United States to the state are to be administered by the WDFW with the exception of the following SPRC administered areas: O’Sullivan, Blythe, Peninsula and Lind Coulee Sites, and Potholes State Park. Each agency is responsible for the development, maintenance and management of their respective areas.

Although the existing MOA divided and determined specific responsibilities between the two agencies, the reader should note that the lands administered by the SPRC are currently limited to the O’Sullivan Site (North and South) and Potholes State Park. All other RMP lands are currently administered by the WDFW.

**Table 4.6-3
Land Use Management & Infrastructure Goals and Actions**

RMP Land Use Management Goals	Management Action
<p>Develop the framework of eventual agreements between Reclamation, the State of Washington and Grant County to provide for effective future management of resources at the Potholes Reservoir.</p>	<p>Delineate Agency Responsibilities - Clearly delineate agency responsibilities and land management responsibility designations inherent in the management of resources in the Potholes Reservoir Management Area.</p> <p>Identify Shared Constraints - Identify and enumerate the constraints of staff availability, equipment shortages, and funding on management and enforcement responsibilities shared by the Grant County Sheriff, the SPRC and the WDFW.</p> <p>Mitigate - Mitigate these constraints where possible.</p> <p>Establish Guidelines for DNR lands - Discuss establishing guidelines for development and growth of activities on DNR-</p>

**Table 4.6-3
Land Use Management & Infrastructure Goals and Actions**

RMP Land Use Management Goals	Management Action
	<p>leased lands not currently managed in conjunction with other land use activities.</p> <p>Investigate Funding - Investigate fee-for-use as a potential source of funds for maintenance and improvement of recreational facilities, for waste disposal services and/or to pay for management and enforcement activities.</p> <p>Examine Present Policy Compatibility - Examine and determine the applicability of Reclamation and Washington state policies that address commercial recreational activities. [Determine if activities such as fishing guides, watercraft rentals, horseback rentals, concessions, etc., exist or have been proposed and may compete with or impact noncommercial recreational activities. Examine policies to determine if change is needed or to establish franchising or use fees.]</p> <p>Fire Protection Agreements - Develop agreements with DNR, County Fire Districts and others to provide protection and suppression services for wildfires.</p>

4.7 GRAZING MANAGEMENT

WDFW will monitor and evaluate livestock grazing in permitted use areas twice annually and modify permit conditions and Grazing Plans accordingly. No more than 40 percent of the forage produced annually will be removed under the Grazing Plan. WDFW reserves the right to alter and change the provisions of the Grazing Plan to include reduction in acres of pasture available and number of AUMs authorized when such changes are required to benefit fish or wildlife management, public hunting, or other recreational uses. WDFW reserves the right to cancel a permit in the event the area described in the permit is included in a land use plan determined to be a higher and better use.

4.7.1 Recommended Grazing Management

**Table 4.7-1
Grazing Management Goals and Actions**

RMP Grazing Goals	Management Action
<p>Continue to manage a coordinated Grazing Plan to best utilize the land while adhering to habitat preservation.</p>	<p>Limit Grazing Permit - Limit the grazing permit program at Potholes Reservoir to the existing 7,400-acre authorization under grazing permit TP-01 or when livestock grazing is used on a rotational bases to meet management objectives.</p> <p>Maintain or Enhance Habitat - Adjust livestock grazing management as needed to maintain or enhance habitat for special status plant and animal species. This may include development of livestock enclosures, or restricted use pastures where grazing systems cannot otherwise be adjusted to accommodate the habitat requirements of a special status species.</p> <p>Modify Grazing Use for Improvement - Modify AUM allocations, season-of-use authorizations, and other Grazing Plan stipulations included in renewed permits to maintain or improve native rangeland species and attain composition, density, foliar cover, and vigor appropriate to site potential and wildlife management objectives.</p> <p>Provide Resting Period Following Fires - Modify renewed grazing permits to stipulate a minimum of two growing seasons rest from livestock grazing following fires. Following this two-year rest period, evaluate range health and suitability for livestock use prior to allowing forage utilization.</p> <p>Monitor Grazing Effects - Monitor and evaluate twice annually the effect of the grazing permit on native rangeland species, plant composition, density, foliar cover, and vigor appropriate to site potential and wildlife management objectives. The evaluator would observe growing season conditions, measure grazing use, record range condition, and determine if objectives are being met. Modify Grazing Plan season-of-use and AUM allocations accordingly or when it would benefit management objectives.</p>

4.8 NATURAL RESOURCES

The quality of the natural resources of Potholes Reservoir and the management area are important to the quality of the recreation experience of the visitors. In general, the RMP should strive to improve the quality of those resources for the health and safety of the visitors and to achieve a satisfactory recreation experience. The following reservoir-wide recommendations would help accomplish this goal.

4.8.1 Vegetation and Weed Control

**Table 4.8-1
Vegetation & Weed Control Management Goals and Actions**

RMP Vegetation & Weed Control Goals	Management Action
<p>Maintain the “traditional” vegetation of the Potholes area, characterized by a native shrub-steppe plant community and a sand dune environment, along with wetland and riparian habitats in a unique geologic “potholes” setting.</p>	<p>Develop Management Policies - Develop management policies for protection of wetland, riparian, shrub-steppe and sand dune areas, which may include restrictions on use of some areas.</p> <p>Conduct Surveys - Conduct site-specific surveys focusing on endangered, threatened, and sensitive plants, wildlife, and their habitats prior to initiating development actions.</p> <p>Rare Plant Distribution - Coordinate with the WDFW, WNHP, WDNR, and BLM to exchange information on local rare plant distributions and status.</p>
<p>Control or eradicate noxious weeds, especially purple loosestrife, but including diffuse knapweed, spotted knapweed, Russian knapweed, perennial pepperweed, Kochia, Puncturevine, Canada Thistle, and salt cedar.</p>	<p>Existing Agreements - Comply with existing agreements and develop other necessary methods to reduce the continued spread of these weeds.</p> <p>Management Activities - Develop, implement and encourage active management activities to eliminate or reduce the presence of these weeds at Potholes Reservoir.</p> <p>Coordinate with the County - Work cooperatively with the Noxious Weed Control Board of Grant County in identifying and prioritizing areas where noxious weed control is necessary. Emphasize weed control efforts in areas with high</p>

**Table 4.8-1
Vegetation & Weed Control Management Goals and Actions**

RMP Vegetation & Weed Control Goals	Management Action
	<p>wildlife habitat value and potential for native species reestablishment.</p> <p>Education - Use signs and other educational methods to enlist increased public participation in the control of noxious weeds.</p>
<p>Manage other vegetation species of concern including Eurasian water milfoil, common reedgrass, and Russian olive, cheatgrass.</p>	<p>Assess Extent of Situation - Assess the extent to which Eurasian water milfoil has become established in the reservoir and the need for and desirability of control practices.</p> <p>Assess Reedgrass Impacts - Assess the impact of the increased presence of dense monoculture stands of common reedgrass on wildlife habitat in created wetlands areas of the management area, and develop management approaches as necessary.</p> <p>Evaluate Effects of Russian Olive - Evaluate the biological, social and economic cost of allowing the uncontrolled spread of Russian olive (<i>Elaeagnus angustifolia</i>).</p> <p>Weed Reduction Methods - Develop and implement methods to reduce the continued spread of these undesirable plant species.</p> <p>Restore & Revegetate - Where feasible, restore and rehabilitate areas presently degraded by land use activities. Restoration efforts would initially focus on areas severely damaged by vehicular access and/or dispersed camping where such access or use would be terminated. Revegetation efforts would use plants native to the area and beneficial to wildlife and special status species. The exact plant mix and planting densities to be used would be determined by the WDFW.</p> <p>Support Private and Volunteer Effort - Support private initiatives and volunteer efforts to plant native species in areas</p>

**Table 4.8-1
Vegetation & Weed Control Management Goals and Actions**

RMP Vegetation & Weed Control Goals	Management Action
	<p>identified for habitat enhancement or site rehabilitation projects.</p> <p>Minimize Irrigated Grass - Minimize the acreage of irrigated grass in Potholes State Park to maintain quality shrub-steppe habitat.</p> <p>Monitor & Evaluate Rehabilitation - Monitor and evaluate the success of vegetation rehabilitation and natural revegetation projects. Adjust the specific methods and techniques employed when project success needs improvement. If natives are the dominant cover type, no supplemental rehabilitation measures (e.g., plantings) would be needed.</p> <p>Herbicide & Pesticide Application - Allow limited use of spot herbicide applications to kill small patches of Eurasian water milfoil affecting public boat ramps, courtesy docks and swimming areas, and to protect wildlife habitat value (e.g., maintain open water for waterfowl nesting and feeding). Additionally, allow herbicide applications to kill patches of purple loosestrife that are colonizing wetlands and reducing/eliminating their suitability as wildlife habitat. Prior to herbicide use, the potential short- and long-term effects on special status species (e.g., leopard frog) would be evaluated.</p> <p>Remove Salt Cedars - Mechanically remove by cutting salt cedar trees (<i>Tamarix</i>) before they become heavily established.</p>

4.8.2 Fisheries

Potholes Reservoir occupies a unique landscape different from many other reservoirs found in the region. Before O'Sullivan Dam was constructed, shifting sand dunes and hundreds of pothole wetlands were dominant features of the area with woody vegetation limited to trees lining the Crab Creek

channel and the shorelines of some small pothole lakes (Zook, 1978). After construction, the existing potholes were inundated and an extensive system of Sand Islands and new pothole wetlands were created within the large reservoir. Because of the area's unique sand dune topography, the amount of shoreline created greatly exceeded what is normally found in reservoir systems. Reservoirs and lakes with high "shoreline development" are typically the most productive.

Topography, substrate, wind action, and water fluctuations are some of the factors affecting the reservoir's physical and biological development. Fish habitat is directly related to these physical and biological parameters. There are two habitat types used by fish at Potholes Reservoir - the reservoir body and the terrestrial-aquatic interface or shoreline wetlands.

**Table 4.8-2
Fisheries Management Goals and Actions**

RMP Fisheries Goals	Management Action
Maintain and enhance fish habitat diversity.	<p>Protect & Manage Fish Habitat - Protect and manage fish habitat inclusive of spawning habitat, nursery areas, foraging areas, areas with vegetative cover, areas with physical structures that provide cover and food production throughout the reservoir.</p> <p>Develop Management Policies - Develop management policies for protection of wetland, riparian, shrub-steppe and sand dune areas, which may include restrictions on use of some areas.</p> <p>Seek Funding - Seek funding for fishery studies designed to determine what factors are limiting the reservoir fishery and what regulatory and/or habitat improvement measures could be taken to reverse the present decline in fish species, populations, and angler success rates. The impact of fish-eating birds (i.e., cormorants) on the reservoir fishery will also be investigated.</p>
Maintain species diversity within the designated priority species	<p>Warmwater Species - Emphasize warmwater species complexes.</p> <p>Panfish - Panfish (bluegill, black crappie, yellow perch) are the priority species managed for recreational purposes.</p>

**Table 4.8-2
Fisheries Management Goals and Actions**

RMP Fisheries Goals	Management Action
	<p>Predator Species - Predator species (largemouth bass, smallmouth bass, walleye) are managed to provide improved panfish populations.</p> <p>Salmonid Species - Salmonid (trout family) species may be provided as additional sources of recreation.</p>
<p>Maintain and enhance the recreational fishing activity at the Potholes Reservoir as an important economic and recreation resource component.</p>	<p>Family-Oriented Recreational Fishery - Maintain and enhance a family-oriented recreational fishery that provides an opportunity for children to have a successful fishing experience, (e.g., with panfish such as yellow perch, black crappie, and bluegill).</p> <p>Sport Fishing - Maintain and enhance sport fishing activity for important gamefish such as largemouth bass and walleye by providing an opportunity for a successful fishing experience for these species.</p> <p>Warmwater Species - Emphasize warmwater species complexes.</p>
<p>Base species management strategies on attainable study objectives</p>	<p>Determine Species Abundance - Determine current relative abundance of fish species.</p> <p>Study Objectives:</p> <ul style="list-style-type: none"> S Determine, age, growth and condition of managed species; S Inventory habitats, spatially and temporally; S Determine the relationship between each species at each life history stage and existing habitats in the reservoir; S Determine limiting factors for fish populations in Potholes Reservoir; S Determine the effects of fish-eating birds on fish populations; S Determine the effects of angling pressure on fish populations.

**Table 4.8-2
Fisheries Management Goals and Actions**

RMP Fisheries Goals	Management Action
<p>Based on study results, develop and implement effective management strategies.</p>	<p>Potential Strategies Include (but are not limited to:</p> <p>Regulation -</p> <ul style="list-style-type: none"> • Establish appropriate fishing size and/or catch limits and seasons for species pursued by anglers on the Potholes Reservoir • Supplementation • Determine need for supplementary stocking of fingerlings, catchable size fish, or brood stock • Manage the potential introductions of fish species into the Potholes Reservoir to prevent undesirable effects of disease, increased competition, or increased predation in the Reservoir; and to prevent inadvertent introductions and adverse effects in the Columbia National Wildlife Refuge (CNWR), Crab Creek, and the Columbia River drainage. <p>Habitat -</p> <ul style="list-style-type: none"> • Protect and maintain desirable habitat features for fish throughout the year • Add desirable habitat features. <p>Tournaments -</p> <p>Manage bass and walleye tournaments on the reservoir to ensure protection of the fish caught and released, and to avoid conflicts with casual recreational fishing activities.</p> <p>Underutilized fisheries -</p> <ul style="list-style-type: none"> • Promote utilization of lake whitefish • Establish carp fishing and archery regulations and/or incentives to increase carp harvest in Potholes Reservoir • Encourage commercial harvest of carp. <p>Species abundance -</p> <ul style="list-style-type: none"> • Use rotenone to control carp in limited areas of the reservoir • Develop feasible management approaches if necessary to control bird predation on Potholes Reservoir fishes.

**Table 4.8-2
Fisheries Management Goals and Actions**

RMP Fisheries Goals	Management Action
Monitor harvest to determine success of management strategies.	Monitor Harvest - Monitor harvest at regular intervals through creel surveys. Contest Records - Maintain fishing contest records. Volunteer Angler Diary - Encourage participation in the Volunteer Angler Diary program. Fishing Guides - Monitor fishing guide participation.

4.8.3 Wildlife

The construction of O'Sullivan Dam dramatically changed the existing landscape north of the dam through the formation of Potholes Reservoir. Inundation of pothole wetlands, riparian, and sand dune sagebrush communities created a unique system of Sand Islands and open water. Over the 50 years since the construction of the dam, wetland plant communities colonized the dynamic island and reservoir shorelines. Emergent marsh communities have developed, and tree and shrub willows have matured in these new shoreline areas. In addition, a dense layer of herbaceous plants covers much of the shoreline exposed during the reservoir's annual drawdown.

Irrespective of any past or current impacts, Potholes Reservoir provides suitable habitat for several classes of common and sensitive terrestrial game and nongame wildlife species. The diverse habitat types, ranging from exposed sand dunes to lush riparian forests, are utilized by numerous wildlife groups including: mammals, birds, reptiles, and amphibians.

At present, a detailed database of wildlife resources and usable habitat is not available, and would be extremely useful to delineate wildlife populations and habitats.

The CNWR, managed by the USFWS, is located adjacent to and south of Potholes Reservoir. The numerous wetlands, lakes and ponds in the refuge are fed by water seeps from Potholes Reservoir and surrounding irrigation projects. As one of the reservoir and surrounding area's important resources, wildlife habitat and wildlife populations consistent with carrying capacities of individual habitats should be preserved and enhanced, where possible. Future planning of reservoir facilities and management should be carefully evaluated to maintain current wildlife habitat conditions and identify opportunities to enhance wildlife habitat.

Lack of funding is a concern of the WDFW. Overall, they have been unable to slow the rate of habitat loss statewide through causes of urban growth, development, timber, and agriculture impacts. More than 80% of the State's citizens participate in wildlife-related recreation alone. This combination can put major stresses on the shrinking habitat base and its dependent wildlife communities. High-use sites have become a growing problem for WDFW, requiring increased staffing and site management that the agency cannot afford. For example, WDFW reports that one staff person is responsible for the maintenance of 120 public recreational fish and wildlife access sites around the State. Budgetary reasons are the primary cause of lack of available wildlife data for the Potholes Reservoir Management Area.

**Table 4.8-3
Wildlife Management Goals and Actions**

RMP Wildlife Goals	Management Action
<p>Maintain, protect and enhance the species diversity of the wildlife populations within the Potholes Reservoir Management Area.</p>	<p>Quantify Wildlife Populations - Inventory and map the distribution and abundance of wildlife populations utilizing the Potholes Reservoir Management Area. Conduct site-specific surveys focusing on endangered, threatened, and sensitive plants, wildlife, and their habitats prior to initiating development actions.</p> <p>Establish Species Management Strategies - Establish species management strategies and priorities for species groups of importance including waterfowl, upland gamebirds, colonial nesting birds, neotropical migratory birds, mule deer, and beaver.</p> <p>Habitat & Population Preservation - Maintain, protect and enhance populations and habitats of endangered, threatened, candidate and sensitive species of the Potholes Reservoir Management area.</p> <p>Perpetuate Wildlife Diversity - Implement species or population management necessary to perpetuate wildlife diversity.</p> <p>Perpetuate Wildlife-Related Recreation - Implement only those programs, activities and management actions which directly and primarily benefit wildlife and wildlife-related recreation.</p>

**Table 4.8-3
Wildlife Management Goals and Actions**

RMP Wildlife Goals	Management Action
	Monitor for Effectiveness - Monitor wildlife species and populations for effectiveness of prescribed management.
Maintain, protect and enhance wildlife habitats.	<p>Quantify Wildlife Habitat - Inventory, evaluate and map habitat components present in the Potholes Reservoir Management Area.</p> <p>Identify Necessary Natural Wildlife Conditions - Identify geologic features, hydrology, vegetation and other conditions necessary for wildlife species and habitats.</p> <p>Establish Habitat Management Strategies - Establish habitat management priorities and strategies for important wildlife habitats, (e.g., open water, wetlands, riparian areas, and shrub-steppe habitats).</p> <p>Monitor for Effectiveness - Monitor to determine success or failure of management strategies.</p>

The following recommendations provide beneficial management actions common to both fish and wildlife present within the Potholes Reservoir Management Area:

- Designate the Upper West Arm and Upper Crab Creek Arm “Habitat Management Areas” (HMAs).
- Seasonally restrict watercraft to low speed/minimum wake operation from March 15 through June 30 to enhance wildlife nesting and breeding success for grebes, waterfowl, and other shorebirds.
- Seasonally prohibit dispersed camping from March 15 through June 30 to enhance wildlife nesting and breeding success. During this seasonal closure period, HMA dispersed camping opportunities would be available at specific sites designated and posted as “open”.
- Maintain and enhance the diking system located in the North Potholes Reserve, Upper Crab Creek, and Upper West Arm management areas to increase the number and extent of “carp-free” waters suitable for special status species (e.g., leopard frogs), waterfowl, and other aquatic wildlife (e.g., grebes, terns, and herons).

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- Manage these diked, “carp-free” waters either for aquatic wildlife (i.e., waterfowl) and/or as a separate fishery from the main reservoir. Those waters managed for fish would target warm water species such as bass and bluegill.
 - Allow the limited use of rotenone in “carp-free” management waters. However, with the recent listing of the leopard frog as a state threatened species, the practicality and desirability of this management action must be carefully evaluated.
 - Identify and protect bald eagle perching and foraging winter habitat. Although wintering bald eagles use the entire reservoir, the North Potholes Reserve, Peninsula South, and Upper Crab Creek Arm management areas are the most heavily used. In the event bald eagles pioneer into or breed in an area, stipulations would be incorporated into existing management and activity plans to ensure human disturbance is kept to a minimum. Appropriate site protective dates and/or buffer zones would be established and implemented near nesting sites.
 - Post signs to seasonally close specific areas, campsites or islands during critical wildlife breeding and nesting periods. Closure periods to protect breeding sites would generally apply from February 1 to June 30 for nesting species of concern: Canada geese, ducks, and colonial nesting birds (e.g., gulls, terns, herons, egrets, and grebes).
 - Enhance bald eagle wintering and roosting habitat by planting additional trees (i.e., cottonwoods and willows) where natural regeneration of suitable tree species is lacking or suitable trees are being lost or nonexistent. Measures (i.e., wrap tree trunks with wire netting) would be taken to protect key roosting sites from beaver activity.
 - Seek funding to conduct a natural resource’s Geographic Information System (GIS) update at least every 10 years. The inventory could include an update of all the habitat, mammal and avian attributes previously mapped including such categories as waterfowl, colonial nesting birds, bald eagle perch trees and roosting sites, as well as threatened and endangered species occurrence and critical habitat locations.
 - Seek funding to analyze the level of disturbance and impacts to nesting birds and other wildlife caused by motorboats, personal watercraft, and dispersed camping activities. Based on these findings, develop or modify strategies to control the time and place of these activities to reduce human-caused disturbances and protect sensitive habitat areas and vulnerable wildlife populations. These disturbance factors are particularly prevalent in the Dunes/Sand Islands management area.
 - Control shoreline access and trails detrimental to wildlife habitat. Traditional fishing access would be maintained and perhaps formalized with constructed trails and/or boardwalks to prevent straying and subsequent habitat destruction.
 - Seasonally restrict public access of any type in the south/central portion of North Potholes Reserve from March 15 through May 30. The purpose of this seasonal restriction is to

minimize human interaction and disturbance during waterfowl and colonial nesting bird reproductive periods.

- Eliminate roads and minimize trails through wetlands, meadows, riparian, and other sensitive wildlife habitats.
- The use of pesticides and herbicides harmful to fish and/or wildlife would be prohibited in HMAs unless authorized by WDFW and Reclamation for wildlife habitat enhancement activities.

4.8.4 Water Quality

The CBP was started in the early 1930's to provide irrigation water to the fertile but arid lands of the Columbia River basin in central Washington. Water for the CBP originates from the Columbia River where it is pumped from Lake Roosevelt at Grand Coulee Dam into Banks Lake - one of the CBPs principal reservoirs. At the south end of Banks Lake, irrigation diversions are made into the Main Canal at Dry Falls Dam. Main Canal waters flow through lined and unlined sections, tunnels, and siphons before terminating downstream from Billy Clapp Lake into the East Low Canal and West Canal, which essentially form the project's east and west boundaries.

Annually, the CBP diverts about 2.6 million acre-feet of water out of the Columbia River to deliver irrigation water to agricultural lands that normally receive less than 10 inches of precipitation a year. After use in the north half of the CBP (on the Quincy and East Columbia Basin Irrigation Districts), much of the water is collected and returned through a series of wasteways to Potholes Reservoir for reuse in the southern half of the CBP by the South Columbia Basin Irrigation District.

In order to establish acceptable water quality standards, it is recommended that managers conduct annual water quality testing at irrigation return flow areas where mixing occurs with open water, at sample locations in the sand dunes area, and at swim beaches. A reporting system should be established to educate the public about the types of constituents monitored, and when thresholds are exceeded. This could be accomplished by posting warnings in the affected area, at information kiosks throughout the developed corridor, at boat launch sites, and at popular day use areas.

As a continuation of the litter monitoring program discussed under land-based recreation, the same observer should monitor recreation use where human sanitation needs may impact water quality. Establishing an annual visual inspection (for observed trash, human waste, etc.) which coincides with other management activities, would inform managers when sanitation facilities and services become necessary to correct and/or prevent ground or surface water contamination. Floating restroom facilities is an option for future management consideration.

The RMP recommends cooperative work between Reclamation and Grant County Mosquito Control District #1 to avoid or minimize chemical mosquito control methods in the Upper West Arm, Upper Crab Creek Arm, and North Potholes Reserve management areas. If mosquito control is deemed necessary, biological control methods would be used whenever possible. In some circumstances, if biological controls fail or if human health is at risk, chemical controls would be allowed.

**Table 4.8-4
Water Quality Management Goals and Actions**

RMP Water Quality Goals	Management Action
<p>Maintain, protect and enhance water quality in the Potholes Reservoir to assure compatibility with irrigation needs, swimming, aesthetic appeal, fish production and consumption.</p>	<p>Identify Constraints - Identify any water quality- driven constraints on Potholes Reservoir uses.</p> <p>Maintain Sampling Stations - Continue to maintain a baseline for reservoir water quality data at existing inlet and outlet sampling stations for routine water quality parameters (pH, alkalinity, nitrates, phosphates, etc.).</p> <p>Develop Sampling Program - Develop a water quality and sediment quality sampling program within the body of the Potholes Reservoir.</p> <p>Determine Contamination Concentrations - Determine concentrations of potential contaminants of concern (dieldrin, methoxychlor, etc.) in the waters and sediments of the Potholes Reservoir Management Area.</p> <p>Sanitation-Related Parameters - Determine sanitation-related water quality parameters (bacterial counts, etc.) for waters of the Potholes Reservoir.</p> <p>Standards Comparison - Compare water quality data to standards.</p> <p>Standards Distribution - Publish and distribute minimal sanitation standards for use of areas of the Potholes Reservoir.</p> <p>Provide Routine Testing - Provide routine testing of fish flesh for concentrations of organic pesticides, metabolic byproducts and heavy metals to assure the fishing population of the safety of these fish as a part of their food supply.</p> <p>Plan Future Actions for CBP - Plan and prioritize future actions for CBP waters and collaborate these actions through</p>

Table 4.8-4
Water Quality Management Goals and Actions

RMP Water Quality Goals	Management Action
	<p>the Oversight Panel consisting of Reclamation, WDOE, EPA, and CBP Irrigation District representatives. These actions include the following.</p> <ul style="list-style-type: none"> • Develop appropriate water quality standards for Potholes Reservoir including uses and criteria. • Identify current and future water quality monitoring needs and determine which of these are appropriate for federal, state, or local accomplishment. • Develop water quality management plans for those waters identified in Section IV D of the MOA. <p>Continued Monitoring - Continue historic and ongoing water quality monitoring programs; modify or expand these programs as necessary to make the determinations called for in Section IV A and IV B of the CWA.</p> <p>Review Water Quality Data - Semiannually review reservoir water quality data through the Oversight Panel and modify water quality monitoring needs as necessary.</p> <p>Coordinate GWMA Process with Potholes Management - Potholes Reservoir (Grant County) is within a WDOE sanctioned GWMA. Coordinate actions developed during the “GWMA” process with Potholes Reservoir management.</p>

4.8.5 Visual Quality

Landscape character gives a geographic area its visual and cultural image, and consists of the physical, biological and cultural attributes that make each landscape identifiable or unique. (SMS, 1995). The upland landscape surrounding Potholes Reservoir is semi-arid and characterized by upland shrub-steppe cover types that include native shrubs and introduced annual grasses. Typically, these appear homogenous to the casual viewer and are not highly regarded. However, changes are more noticeable in this landscape type than in other more diverse landscapes.

Widely dispersed ranches, orchards, and farm operations are visible along the eastern boundary of the Potholes Reservoir Management Area. Riparian forest and riparian shrub cover types are common

along reservoir and island shorelines, in natural drainages, and along wasteways. Wind breaks and shade trees are found in developed areas where they have been planted and irrigated. Sandy beaches, wind-blown dunes, and mudflats (at low water) characterize many of the undeveloped shoreline areas found around the reservoir. Most of the dispersed campsites have fire rings, and some are visually compromised each season by the presence of trash and human waste.

**Table 4.8-5
Visual Quality Management Goals and Actions**

RMP Visual Quality Goals	Management Action
<p>Preserve, protect, and enhance the natural scenic resources of the Potholes Reservoir Management area.</p>	<p>Minimize Development - Minimize development in areas that would adversely affect natural scenic resources.</p> <p>Develop Design Guidelines - Develop design guidelines for land development within the Potholes Reservoir Management Area. Specifically, design facilities to minimize adverse effects on visual quality.</p> <p>Include Lease Provisions - Include provisions in leases which require that form, line, texture, and building materials used must be compatible with the natural landscape.</p> <p>Unused Road and Trail Rehabilitation - Close and revegetate (using native plants) any roads or trails that are not planned for future use.</p> <p>Design Criteria - Criteria should be developed for the appearance of structures and natural landscape preservation. These criteria would be applied in the planning, design, land use agreements and construction of all new facilities and structures, and in the maintenance or modification of all existing facilities and structures.</p> <p>Promote “Pack-in/Pack-out” - Increase the promotion of “pack-in/pack-out” waste management practices in all visitor brochures, signs, educational materials, etc. developed for the Potholes area.</p> <p>Remove Illegal Dumps - Remove illegal trash dumps located in the Potholes Reservoir Management Area. Work with user and civic groups (i.e., hunting and fishing clubs, ORV clubs, scouting clubs, etc.) to accomplish cleanup activities.</p>

4.8.6 Soil Conservation and Erosion Control

Grant County resides in a regional structural basin. The County rests on the lower limb of the Grand Coulee Monocline to the north/northwest and the northern limb of the Frenchman Hills Anticline to the southwest. The region to the northeast, including the Potholes Reservoir Management Area, is subjected to a 0 to 5 degree dip in the southwest direction. The effect of these structural features is the formation of a regional sediment and groundwater cache basin in and around Potholes Reservoir. In addition to groundwater, this structural low has been the deposition location for southwest prevailing wind borne silt and sand, making the area an eolian depositional basin as well.

Nearly all of the soils on the Columbia Plateau and in the Columbia drainage basin have been formed under grassland or shrub-grassland vegetation. Soil parent materials in this region include basalt, volcanic ash, sedimentary deposits, glacial outwash, and alluvial, fluvial, and colluvial deposits. Soils are generally covered with windblown sand and silt. Caliche layers occur in most of the soils and are generally within a range of seven feet deep. Loess dominated subsoils are moderately saline and contain a moderate amount of exchangeable sodium.

**Table 4.8-6
Soil and Erosion Control Management Goals and Actions**

RMP Soil & Erosion Control Goals	Management Action
Maintain stability of the shoreline and subsurface areas of the reservoir.	<p>Soil Stabilization - Stabilize the active erosional areas along the east and north shores.</p> <p>Prevent Erosion - Prevent erosion of State Park lands that can occur in high pool elevation in the day use area and the primitive camping area.</p> <p>Reduce Sediment Deposition - Reduce sediment deposition in the vicinity of the State Park boat ramp.</p> <p>Conduct Erosion Inventory - Conduct an integrated erosion inventory and control program to identify and prioritize eroded features and areas, unstable land forms, and areas susceptible to soil erosion and/or compaction. Reclamation and the State would identify corrective measures, prioritize areas to be rehabilitated, and develop a monitoring program to assess program results.</p>

Table 4.8-6
Soil and Erosion Control Management Goals and Actions

RMP Soil & Erosion Control Goals	Management Action
	<p>Implement Erosion Control Measures - Implement shoreline erosion control measures with an initial emphasis on protecting cultural resources and public facilities in developed recreation areas. Specific erosion control measures would be identified on a site and project-specific basis and likely include the construction of retaining walls, the placement of rock revetments or gabions, vegetative plantings, or other such measures to halt the process of shoreline retreat.</p> <p>Limitations on Recreation Activities - Limit or eliminate motorized travel or recreation activities on soils sensitive to compaction, high soil erosion potential rating, and/or exhibit existing accelerated erosion problems.</p> <p>Post Road Closures - Post signs or install barriers to close (seasonally or permanently) those portions of the primitive road system where erosion is a problem.</p> <p>Provide Shoreline Trails and Boardwalks - Control soil and shoreline erosion and wetland and riparian habitat degradation in high use areas within the Developed Corridor by providing water access via constructed trails and boardwalks. Obliterate and restore random trails.</p> <p>Monitor Success - Monitor and evaluate the success of soil conservation and shoreline erosion control projects. Adjust the specific methods and techniques employed when project success needs improvement.</p>

4.9 CULTURAL RESOURCES

Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archeological or scientific importance. There are several laws and regulations directing federal agencies to locate, identify, evaluate, preserve, protect and manage cultural resources significant to the nation's heritage and history, the focus of which, is the National Register.

The laws germane to an EIS include the National Historic Preservation Act (NHPA) of 1966, As Amended, especially Sections 106 and 110, and its implementing regulations found at 36 CFR 800, and the Archeological Resources Protection Act of 1979. These regulations require federal agencies to make determinations of eligibility, effect, and treatment in consultation with the SHPO, interested Indian tribes, and the Advisory Council on Historic Preservation. In addition to authorizing federal agencies to take cultural resources into account during project activities, these mandates also direct agencies to develop a program to actively manage cultural resources, as well as to coordinate with those segments of the American public or Tribal Governments management of Traditional Cultural Properties (TCPs) significant for their traditional cultural values. Additionally, compliance with the Native American Graves Protection and Repatriation Act (NAGPRA) in protection or removal of human burials if they are found or reported.

Reclamation and/or the State would conduct Class III surveys and prepare a Cultural Resource Management Plan (CRMP). The CRMP will outline specific actions and methods to protect cultural resources. Coordination with the Native Americans who have interests at Potholes Reservoir is recommended to prepare the CRMP and manage cultural resources.

If cultural resources are found on Reclamation lands “open” to ORV use that are eligible for the National Register, the Grant County ORV Area boundary would be adjusted to protect identified cultural resources and/or sites. Similarly, the land use agreement which authorizes the county to operate and maintain an ORV Area on Reclamation lands managed by the WDFW would be amended to exclude culturally sensitive areas from the agreement and subsequent ORV activity.

**Table 4.9-1
Cultural Resource Management Goals and Actions**

RMP Cultural Resources Goals	Management Action
Preserve, protect, maintain and enhance cultural resources including archaeological sites, ethnographic sites and traditional use areas within the Potholes Management Area.	Identify Cultural Resources - Locate, identify and describe cultural resource sites in the Potholes Reservoir Management Area and determine eligibility for National Register listing. Manage Restricted Visitor Use - Restrict visitor use of these sites with appropriate management techniques. Historic Preservation - Preserve geological formations and historic sites for the education and enjoyment of the public.

**Table 4.9-1
Cultural Resource Management Goals and Actions**

RMP Cultural Resources Goals	Management Action
	<p>Historic Education Programs - Enhance cultural resources through appropriate educational programs or other management activities.</p> <p>Pursue Tribal MOU - Pursue an MOU with concerned or interested Tribal governments related to this goal, and achieving other RMP goals and objectives.</p> <p>Seek Funding - Seek funds for programmatic site management, test excavation of sites being damaged by on going land use or operations, and stabilization or other management actions for affected sites that are eligible for the National Register.</p> <p>Native American Interpretive Information - Work with Native Americans who have interests at Potholes Reservoir to develop and display appropriate interpretive information on Native American use of the area and the need to preserve and protect cultural resources.</p> <p>Prepare a CRMP - Conduct Class III surveys and prepare a CRMP. The CRMP will outline specific actions and methods to protect cultural resources.</p> <p>Coordinate CRMP with Native Americans - Coordinate with Native Americans with interests at Potholes Reservoir to prepare the CRMP and manage cultural resources.</p>

4.10 VOLUNTEER PROGRAMS

Involving volunteers in development, maintenance, and management will be critical to fully implementing this RMP. For example, user groups and organizations having civic functions provide a valuable supplementary function to identifying needs and problems, as well as to managing and solving those problems.

Creation of a cooperating nonprofit association at Potholes Reservoir or founding a chapter of an existing association (e.g., Northwest Interpretive Association) would provide a vehicle for raising funds, soliciting donations, and organizing volunteers.

Inter-agency partnerships and agreements between agencies and nongovernmental organizations (i.e., public-private partnerships) can be a cost effective way to accomplish a project, provide maintenance, or develop management strategies. Many organizations can be enlisted to provide professional expertise, manpower, materials and equipment. These partnerships often can be arranged at no-cost or a reduced cost to the host agency. Table 4.10-1 provides a partial list of organizations and examples of projects with which partnerships may be available. Managers should be encouraged to pursue these types of mutually beneficial projects.

Encouraging participation in reservoir-wide volunteer clean up projects should be a priority. In the past, a Fish and Game Warden organized an annual sand dune clean up where volunteer boaters would meet on a Saturday morning at Mar Don Resort.

The volunteer clean up, in recent years, has not been organized. A suitable time-frame for a clean up weekend is recommended for the 3rd Saturday in September, National Fishing Day. This time frame would be suitable for collecting scattered litter at the dunes and other areas at low water levels before it has a chance to float into the reservoir. Mar Don Resort managers have agreed to distribute garbage bags to customers fueling at their marina throughout the season. Garbage bags should be available from all agency personnel when in the area and at visitor contact points. The co-op of volunteers could involve private citizens, user groups/fishing clubs, Grant County Solid Waste (garbage disposal), Mar Don Resort and other local businesses, and Potholes State Park.

**Table 4.10-1
Volunteer Program Management Goals and Actions**

RMP Volunteer Program Goals	Management Action
Encouraging participation in reservoir-wide volunteer projects.	<p>Boy Scouts/Youth Groups - Habitat improvement, small scale trail and boardwalk construction and maintenance, facilities beautification.</p> <p>Civic Groups (Lions Club, Rotary, etc.) - Facilities improvement, project specific fund-raising, professional expertise of members.</p>

**Table 4.10-1
Volunteer Program Management Goals and Actions**

RMP Volunteer Program Goals	Management Action
	<p>User Groups (Sand Commandos, Fishing Clubs, Ducks Unlimited, Audubon Society, etc.) - Habitat improvement, issue-specific public education/awareness, facilities improvement and maintenance, project-specific fund-raising.</p> <p>Retired Persons - <i>Volunteer Area Use Hosts</i> at overnight and day use areas. Provide free RV space/utilities in exchange for host services. Host can provide a range of services including visitor information/assistance, clean up, and vandalism deterrence. Busy day-use areas could have a resident host who is present to open and close gates and look after the area.</p> <p>Coast Guard Auxiliary - Boating safety education, reservoir safety patrols, emergency visitor assistance.</p> <p>National Guard/Reserve Units (engineering, construction, heavy lift/transportation) - National Guard/Reserve units can sometimes be enlisted to provide manpower and equipment for heavy construction projects such as viewing towers, jetties/docks/piers, concrete work, and heavy lift of materials into remote/inaccessible areas by helicopter.</p> <p>Universities - undergraduate and graduate students can be used for a variety of projects including landscape and building design, interpretive displays/facilities, habitat improvement, wildlife/fisheries studies and monitoring, and prescribed burning. Student interns can also be used for a variety of duties during the summer season.</p>

4.11 SUPPLEMENTAL FUNDING

Similar to volunteer programs, funding to supplement the current management budgets is critical to implementing this RMP. User fees are an excellent example of providing additional funding, which can

be specifically slated for those facilities generating them. Private donations can also be earmarked, used with the general management or maintenance fund, or established and managed in a fund or trust for management and maintenance of the project facilities and lands.

4.11.1 User Fees

User fees can be a potent source of supplemental funding if the fees collected can be retained at the local level. Potential sources of fees include revenue from camping, boats, boat launches, and parking facilities at day use areas. An alternative to assessing fees only to visitors using specific facilities or services is the implementation of an Area Use Fee. This alternative is becoming increasingly popular throughout the country as a means of more fairly assessing use fees across all user groups. Under the Area User Fee system, anyone entering the area is required to purchase a pass on a daily, multi-day or annual basis.

The potentials for user fees should be evaluated and selectively implemented during the RMP. Camping in developed campgrounds and boat launch facilities would be implemented first. There is also the potential to implement user fees in the ORV use area.

4.11.2 Donations

Nonprofit organizations and recreation user groups can often be used as a source of supplemental funding. These groups typically help to raise funds or make donations of money and/or time for projects of interest to their organization. Donations of materials or services are sometimes available for special projects from businesses such as local or national building material suppliers and local printers. In addition, cash donation boxes located at visitor centers or visitor contact stations provide opportunities for visitors wishing to make small cash donations. The relatively small sums received through donation boxes are important in allowing visitors to feel a sense of ownership in the area and it provides funds for inexpensive, but usually unfunded programs or items.

4.11.3 Grants

A number of grants may be available from governmental, private, and nonprofit organizations. Grants are typically for special projects or one-time capital expenditures of specific interest to the granting organization. Grants may be available through the following agencies and organizations: the National Park Service, National Audubon Society, Recreational Equipment Inc., B.A.S.S., and Ducks Unlimited.

4.12 INFORMATION AND EDUCATION

A widespread and coordinated public information and education campaign should be planned and implemented. This program should inform the public of existing policies and regulations and new changes being implemented as part of the RMP. While information and education programs alone cannot accomplish most management goals, they should be an integral part of any program aimed at altering visitor behavior (in concert with adequate enforcement and facilities/lands management).

**Table 4.12-1
Information & Education Goals and Actions**

RMP Information & Education Goals	Management Action
<p>A widespread and coordinated public information and education campaign should be planned and implemented.</p>	<p>Establish Web Site - An internet web site should be established for resources and facilities at Potholes Reservoir. The agencies should coordinate the web site development and maintenance between Potholes Reservoir and those of their individual agency.</p> <p>Pack-In/Pack-out Information - All garbage should be packed out by visitors and disposed of at an approved garbage disposal facility,</p> <p>Use Areas/Regulations/Maps - Maps displaying use areas and pertinent regulations should be posted in prominent locations frequented by visitors. To be effective, these displays must be well-maintained and replaced as needed. Additionally, such material should be displayed in locations where visitors are a captive audience (e.g., inside toilet stall doors and on walls above urinals in restrooms).</p> <p>Safety/Hazards - While it is impractical to identify and post every safety hazard in an area, the most significant hazards should either be mapped or posted. General safety information should be described in a way that is easy for the visitor to understand. Graphic representations are often an ideal way to accomplish this.</p> <p>No Wake Zone - No wake zones should be mapped and displayed in locations frequented by boaters, both at the reservoir and at appropriate locations in the local community.</p>

**Table 4.12-1
Information & Education Goals and Actions**

RMP Information & Education Goals	Management Action
	Sanitation - Sanitation is a growing problem at Potholes Reservoir. Every effort should be made to educate the public before it becomes a major health hazard.

4.13 FACILITIES AND SERVICES

Potholes Reservoir currently has a variety of facilities provided for the recreation visitor. However, many of these facilities are either outdated, under maintained, or inadequate to handle the current number of visitors. In addition, there are a number of facility types that would be appropriate to provide at Potholes Reservoir to enhance recreational experience and to protect natural resources.

The reservoir area provides recreational opportunities that range from the semi-primitive non-motorized (SPNM) setting of the North Potholes Reserve to rural (R) in much of the Developed Corridor and West Lind Coulee Arm. Based on the findings as presented in the Assessment and Policy Plan 1995-2001 Statewide Comprehensive Outdoor Recreation Plan (SCORP), the State of Washington would try to give priority to State Park acquisitions and developments that expand camping opportunities, provide additional types of compatible use of an existing site, and interconnect and solidify or “block up” ownership to help ensure the efficient stewardship of an existing site (e.g., acquire in-holdings). As a result of public focus group meetings, surveys of recreation and habitat professionals, and individual interviews, IAC found that people expect the state to provide essential outdoor recreation opportunities.

Among special interest groups, teenagers are most in need of more recreation opportunities. While this issue is not specifically addressed in the Comprehensive Plan for Grant County, participants in public issues meetings agreed that meeting the needs of area youth is more directed at local government than state government.

Recommendations for expanding facilities and providing additional recreation opportunities are discussed in Chapter 5 “Land Management Area Recommendations.”

In conjunction with ongoing user or public opinion survey, data should be collected at regular intervals to provide an overall assessment of user satisfaction. This data should include the number of times per season that campgrounds, day use areas, or other facilities are full and a record kept of the frequency of requests for different types of opportunities desired (i.e., group use, camping, events, etc.). A log of the frequency and nature of visitor complaints (adequacy of facilities, trails, access, etc.) or user conflicts should be kept and used as a tool to direct intensive management to appropriate areas of the reservoir.

After evaluating survey responses, conducting appropriate inventories of site and facility conditions, and comparing data with standards and maintenance levels, management can develop appropriate measures and actions to solve reservoir-wide problems.

**Table 4.13-1
Facilities & Services Goals and Actions**

RMP Facilities & Services Goals	Management Action
<p>Enhance recreation facilities and experiences while protecting natural resources at the Potholes Reservoir Management Area.</p>	<p>Access - Based on opinions of public land managers, focus group participants, and public input, water access is of great importance and the supply of water access has not kept up with public demand. Generally, access to the reservoir from parking areas or developed facilities has been random and unestablished at best. In order to concentrate impact and to alleviate vegetation loss and erosion, trails to water-level need to be developed in accordance with a road/access management plan. Specific recommendations have been made for each LMA to address the issue of water-level access. Properly designed and maintained trails and boardwalks are recommended to provide safe and convenient access to land and water resources. They can also be very effective in protecting sensitive resources, particularly in riparian and wetland habitats.</p> <p>Parking - Adequate parking should be provided as a means of enhancing visitor safety and reducing impacts to</p>

**Table 4.13-1
Facilities & Services Goals and Actions**

RMP Facilities & Services Goals	Management Action
	<p>surrounding resources. In popular areas where inadequate parking exists, visitors will often park in inappropriate or unsafe locations.</p> <p>Restrooms - Because current restroom facilities are inadequate, additional facilities should be provided throughout the management area. Proper sanitation is a growing problem, especially at dispersed use areas around the reservoir, on the Sand Dune Islands, and along shoreline areas accessible only by boat. The addition of floating restrooms, strategically located around the reservoir, should aid in reducing sanitation problems and in improving public health.</p> <p>People with Disabilities - In accordance with the ADA, site managers must consider handicapped accessibility when planning to construct new facilities or when upgrading existing facilities. Further opportunities for improving the level of recreational opportunities for persons with disabilities should be explored.</p> <p>Boat Launches - Existing boat launch facilities are often congested. In some cases, a larger boat ramp (i.e., longer ramp and floating dock or more lanes) may need to be built to alleviate this congestion. Congestion problems, and ultimately visitor safety, can be greatly improved by providing a courtesy boat dock area adjacent to the launch area. These docks help reduce congestion by reducing the loiter time boaters spend on the boat ramp. Courtesy docks, often with a picnic area associated with them, provide a place for boaters to dock while taking breaks, retrieving forgotten items from the car, or for loading and unloading passengers and equipment before or after launch operations.</p> <p>Fishing Access - Fishing access points should be developed in appropriate locations to help disperse anglers and improve the quality of the fishing experience. Opportunities for</p>

**Table 4.13-1
Facilities & Services Goals and Actions**

RMP Facilities & Services Goals	Management Action
	<p>developing fishing access specifically designed for disabled visitors should be actively explored. One option may be a dock or jetty extending out into the reservoir.</p> <p>Observing Wildlife - Providing blinds for wildlife watching and photography would greatly enhance opportunities to view and photograph wildlife. Observations blinds may also reduce disturbance to wildlife.</p> <p>Visitor Satisfaction and Trends - User satisfaction is a large issue in the management of recreation resources. There is not adequate data available from WDFW or Grant County at this time to provide quantitative information for use volume, conflict, crowding, or satisfaction for the management area. Some user counts have been collected for Potholes State Park, however, this data does not satisfy issues of crowding, conflicts, and overall satisfaction. The information at the remaining recreation sites is anecdotal (i.e., agency or public input) and does not provide consistent, comparable data. Visitor information surveys need to be regularly conducted during the summer, including at least one peak holiday (Memorial Day, Fourth of July, or Labor Day) to supplement and reinforce “public input.”</p>

4.14 VISITOR INFORMATION AND INTERPRETATION

The following management actions were developed to achieve the Desired Condition for Visitor Information and Interpretation in the Potholes Reservoir Management Area and are meant as additions to the existing resource management activities.

**Table 4.14-1
Visitor Information & Interpretation Goals and Actions**

RMP Visitor Information & Interpretation Goals	Management Action
<p>Provide appropriate information and educational materials to increase public awareness of recreational opportunities, use restrictions, safety concerns, and natural and cultural resources.</p>	<p>Post Signs - Post or modify existing signs to inform the public of relevant Grant County ordinances and regulations. Post “Pack-In/Pack-Out” signs and posters on all signs and bulletin boards used for public information purposes. Install signs at all developed recreation areas, boat launches, and other high public use areas. Use signs, maps, and brochures to inform visitors of recreation opportunities; boating hazards; boating, camping, and motorized and ORV travel regulations and restrictions; road and area closures; etc. in the reservoir area. Provide signs to all developed and dispersed recreation areas at key road intersections, and use informational materials and maps to illustrate these primary public access routes.</p> <p>Emphasize Public Education - Develop a public education and interpretive program to increase the public’s awareness of Potholes Reservoir natural resources, management problems and concerns, and the area’s high desert environment and fragility. The interpretive program envisioned would focus on the areas’ vegetation, wildlife, sand dune, and historical cultural features.</p> <p>Develop Overall Guide/Map - Develop an overall visitor guide/map for the Potholes Reservoir area. The guide would be a useful tool to promote and direct visitors to designated dispersed camping areas, developed recreation area facilities and services, points of interest, etc. Provide information on motorized travel restrictions and regulations; and guidance on the proper disposal of human wastes, pack-in/pack-out, fire use, and camping etiquette.</p> <p>Provide ORV Information - Install additional “ORV Area” signs to clearly direct off-road vehicle users to the authorized Grant County ORV Area. Modify the existing ORV signs posted in and near the area to accurately reflect ORV Area boundaries and the land area “open” to ORV riding.</p>

**Table 4.14-1
Visitor Information & Interpretation Goals and Actions**

RMP Visitor Information & Interpretation Goals	Management Action
	<p>Develop “Watchable Wildlife Sites - Develop “Watchable Wildlife” sites and interpretive trails in concert with the statewide Watchable Wildlife Program administered by the WDOT and WDFW.</p> <p>Prohibit Primitive Camping - No primitive camping areas would be designated or developed.</p> <p>Establish Seasonal Watercraft & Dispersed Camping Restrictions - Seasonally restrict watercraft to low speed/minimum wake operation and prohibit dispersed camping (except in designated areas or sites) in HMAs from March 15 through June 30 to enhance wildlife nesting and breeding success.</p>

4.15 OTHER RECOMMENDATIONS

4.15.1 Leased Areas (i.e., Concessionaires) Managed Consistently with the RMP

The area covered in the RMP is managed concurrently by Reclamation, WSPRC, WDFW, Grant County Sheriffs Department, and private concessionaires (Mar-Don Resort). Due to differences in management goals, priorities, staffing, and funding levels, the management at Potholes Reservoir varies widely throughout the Potholes Reservoir Management Area.

Law enforcement, maintenance activities, and all facilities throughout the RMP area should be managed in a coordinated and consistent manner, upholding the same standards regardless of the managing entity. To visitors, management of the reservoir should appear uniform. With its dominant presence at the reservoir, SPRC is the obvious choice to take the lead in setting Law Enforcement and Management standards.