
Chapter 3

Existing Land Use and Management

CHAPTER 3.0

EXISTING LAND USE AND MANAGEMENT

3.1 Land Status and Management

3.1.1 Project Facilities and General Operations

Reclamation administers the lands within the boundaries of Scoggins Valley Park, owned by the United States. This includes all lands, facilities, and improvements. The park and water recreation resources are maintained and operated by WACO for public use and fish and wildlife enhancement under a management agreement with Reclamation. Reclamation has final authority on all matters pertaining to contract agreements between WACO and other entities. Land ownership, management, and status are illustrated in Figure 3.1-1.

Scoggins Dam is maintained and operated by TVID, under contract with Reclamation, who is responsible for dam and reservoir operations and water supply releases to contract users (Photos 3-1 and 3-2). The operational goal of TVID is to fill the reservoir in the spring and draw it down in the fall, specifically to bring the reservoir volume up to 53,640 af by May 1st and draw back down to 33,040 af by November 1st. Table 3.2-1 lists additional data about the dam and reservoir.

3.1.2 Reservoir Operations

Reservoir operations are not part of the RMP but are summarized to provide a general context. Henry Hagg Lake is the major storage reservoir facility of the Tualatin River Project and has an active storage capacity of 53,640 af and a water surface area of 1,132 acres at normal full pool elevation. The dam facilities

are operated by the Tualatin Valley Irrigation District (TVID) under the general supervision of Reclamation's Lower Columbia Area Office in Portland. Reclamation's Bend Field Office, Bend, Oregon, and the Pacific Northwest Regional Office, Boise, Idaho, provide the day-to-day contact/coordination with TVID on operational and maintenance issues associated with the project. The project must meet a minimum flow to Scoggins Creek below the dam of 10 cubic feet per second (cfs), except in October and November when releases must be 20 cfs. Irrigation and other water uses typically draw the reservoir down to about 22,000 af or less by November 1. Flood control rules do not allow the reservoir to fill above 33,040 af until after January 15, after which maximum levels are prescribed by a fill curve that does not allow the reservoir to fill completely before May 1. Temporary storage above the fill curve is only allowed during flood control events, after which the reservoir must be drafted back down.



Photo 3-1. Scoggins Dam at low pool (October 2001).



Photo 3-2. Scoggins Dam, spillway, and operations facilities below the dam.

TVID operates and maintains Scoggins Dam and water releases from the reservoir. During the year, the water surface level can fluctuate from a maximum of 1,132 surface acres of water to a minimum of 411 surface acres. TVID manages the reservoir with a goal of reaching 53,640 af on May 1 of each year. The high water level is maintained until orders are received from the various contracting entities and outflow demands exceed inflow. Project specifications are summarized in Table 3.1-1.

3.1.3 Land Status and Management

Henry Hagg Lake was created in 1975 when Reclamation built Scoggins Dam as part of the Tualatin Project. The project was created to supply irrigation water to the Tualatin Valley, municipal water to local communities, and provide for flood control. Recreation development and fish and wildlife enhancements are also authorized project purposes. The TVID was formed by Oregon Statute in 1962 (prior to the development of the Tualatin Project) for the purpose of shepherding the project through the U.S. Congress (Reclamation 1994). During construction of the dam, TVID signed a 50-year operation and maintenance agreement with Reclamation to manage Scoggins Dam and to supervise water supply releases (pers. comm., J. Rutledge, 2002). TVID operates and maintains the dam under the general supervision of the Manager of Reclamation’s Lower Columbia Area Office. Reclamation pays for 40% of the operations and maintenance (O&M) of the dam; all other contracting entities, including TVID, split the remaining 60%. In 2001, the responsible contracting entities were TVID (21%), Clean Water Services (14%), Hillsboro (9%), Forest Grove (8%), Beaverton (7%), and Lake Oswego (1%).

Table 3.1-1: Project specifications.

Normal Full Pool	
Elevation	303.5 ft
Active Storage	53,640 af
Surface Area	1,132 ac
Shoreline	11 mi
Minimum Pool (Inactive and Dead Storage)	
Elevation	235.3 ft
Storage	6,310 af
Surface Area	411 ac
Allocation of Capacity	
Active/Joint Use Storage	53,640 af
Inactive/Dead Storage	6,310 af
Scoggins Dam	
Structural Height	151 ft
Crest Elevation	313 ft
Crest Length	2,700 ft
Spillway Crest Elevation	283.5 ft

Source: Reclamation (2002)

Insert Figure 3.1-1 Existing Recreation Sites
and Facilities

Back of Figure 3.1-1

For capital improvement projects related to issues such as dam safety, Reclamation assumes financial responsibility (pers. comm., L. Busch, 2002).

WACO entered into a separate 50-year lease agreement with Reclamation in March 1973 to administer Scoggins Valley Park and Henry Hagg Lake for public recreation use and fish and wildlife enhancement. The ownership of lands and developed facilities at the park remain the property of the United States (Reclamation 1994).

Reclamation funded development of the park, which was planned by NPS. Two of three planned phases for the park's recreation facilities (representing approximately 55% of the original development plan) were completed in 1976. The third phase of the NPS plan was not developed because the level of park attendance in the early 1980s did not warrant its completion (Reclamation 1974).

Due to an increase in popularity and recreational use during the 1980s WACO developed a Master Plan (1989) that identified additional recreational facilities to meet growing demand. Because the area is owned by the United States, this property development represented a Federal action, thereby requiring that an Environmental Assessment be prepared to comply with NEPA to evaluate the Master Plan and to develop a proposed action based on the Master Plan (1994). In 1997, recreation development that resulted from the Master Plan included upgrades to the Sain Creek Picnic Area such as power and water, paved parking, paths through the area, picnic tables, drinking fountains, and a covered pavilion (pers. comm., C. Wayland, 2002).

The Reclamation Zone is an area around the dam where Reclamation may restrict public use for safety concerns and to preserve the integrity of the dam. Fishing is currently allowed in the Reclamation Zone, but signs are posted to warn people away from the dam water intake structures. No public use is allowed

on the downstream face of the dam or near the outlet structure.

3.1.4 Contractual Agreements

The park is currently managed by WACO through the Facilities Management Division. There are other portions of the park or park activities that fall under the management responsibility of other entities contracted by WACO. ODFW is responsible for fish management at the reservoir. WACO is responsible for wildlife habitat management at the reservoir. Agreements exist between WACO and the U.S. Coast Guard Auxiliary Flotilla 712 and other volunteer public service entities. In addition, WACO has contracts with two private concessionaires to provide goods and services to users of the park. There are no agricultural or timber leases on lands within the park. Also, there are no permits issued by Reclamation or WACO to private parties for items such as boat docks or mooring buoys (pers. comm., C. Wayland, 2002).

A Memorandum of Understanding (MOU) between Reclamation and ODFW (formerly the Fish Commission of Oregon) was established in 1973 with no termination date. This is a mitigation agreement for construction, operation, and maintenance of a fish hatchery, as well as trapping, holding, rearing, and stocking of anadromous fish for mitigation purposes due to the construction of the Scoggins Dam (Reclamation 1973). ODFW has discontinued its steelhead hatchery stocking program, requiring development of an alternative mitigation plan. Reclamation published an EA/FONSI in May 2001 that identified habitat restoration as the preferred mitigation plan. Agreements will be developed as needed to implement this plan.

As a component of mitigation for development of the dam, ODFW required Reclamation to maintain elk meadows at the park. The lease agreement between Reclamation and WACO included wildlife enhancements that

have encompassed mowing of the elk meadows. WACO had agreements with private contractors that allowed them to cut and bale hay from these pastures, including the Reclamation zone at the south end of the reservoir. WACO mows several of the pastures also as a way to reduce the threat of fire late in the summer when the grass would become tall and dry. A few of the pastures, such as the one below the dam next to Scoggins Creek, are currently managed by private contractors through agreements with the TVID. The private contractor, a local farmer, disked and seeded the pasture below the dam in early 2002 and cut and baled hay from it in the summer of 2002 (pers. comm., C. Wayland, 2002).

The WACO Sheriff maintains a contract with the Oregon State Marine Board. From Memorial Day to Labor Day, the Sheriff provides marine patrol services and is the primary provider of law enforcement on the reservoir. The State Marine Board annually funds the sheriff's marine patrol and provides a building at Recreation Area A West boat ramp from which the patrol operates. Potential activities include boat inspections, emergency response, righting capsized vessels, towing disabled vessels, and removing hazards in the water (pers. comm., C. Wayland, 2002).

While there is no contractual agreement between WACO and the U.S. Coast Guard Auxiliary Flotilla 712, there is a verbal agreement between them. The Coast Guard Auxiliary facilitates boater safety on the reservoir by providing education and assisting the public in their boating safety needs. The services they provide are addressed in more detail in Section 3.3, Public Utilities and Services. WACO also has verbal agreements with a volunteer retired State Police group and a Sheriff's mounted posse to provide additional enforcement during busy summer weekends. These are also discussed in more detail in Section 3.3.6, Law Enforcement (pers. comm., C. Wayland, 2002).

There are two private concessionaires at the park who have contracts with WACO to provide goods and services. Each year when the park opens, they set up temporary facilities. One of these provides boat rentals and is located at the head of the Recreation Area C Boat Ramp, the other provides food service from a mobile truck also located at the Recreation Area C Boat Ramp (pers. comm., C. Wayland, 2002).

In June 2001, WACO entered into a license agreement (effective until December 31, 2011) with Reclamation that allows them to dispose of rock and soil generated from road maintenance activities throughout Washington County. A 13-acre parcel of land located between the dam and Scoggins Valley Road north of the Stimson Mill (NW ¼ of Section 21, T 1S, R4W) has been designated as the site where soil and rock disposal and storage may occur (Washington County 2001).

3.1.5 Easements

There are 44 access easements (also referred to as warranty deeds with "exceptions") that have been granted by Reclamation to private landowners whose properties are adjacent to Reclamation-owned land and accessible only from the perimeter County Roads within the park. Additionally, Reclamation currently has one road easement with Stimson Lumber in which an existing road was relocated onto Reclamation lands. Reclamation has recently issued a phone line easement on Reclamation lands. No flowage easements exist with regard to the shoreline of the reservoir, and there are no easements of any kind adjacent to the shoreline.

3.1.6 Encroachments on Reclamation Lands

There are no known encroachments on park lands by surrounding landowners or related items such as decks, sheds, storage, fences,

trailers, or landscaping which might be located across property lines (pers. comm., C. Wayland, 2002).

3.1.7 Adjacent Land Use Patterns

Land ownership directly adjacent to the park consists primarily of private interests. Approximately half of the private ownership adjacent to the park boundary consists of about 70 private residences and small farms, ranging in size from less than 1 acre to several hundred acres. Access to these private properties from public roads is often via easements. The other half of private ownership adjacent to the park boundary consists of private timber holdings. Easements also provide access to nearby forest areas where logging and timber management activities occur (Reclamation 1994; pers. comm., C. Wayland, 2002).

Scoggins Valley Park is located within an area designated by the Washington County Comprehensive Plan as an Exclusive Forest and Conservation (EFC) District (Washington County Website). The intent of the EFC District is to provide for “forest uses and the continued use of lands for renewable forest resource production, retention of water resources, recreation, and agriculture.” While the purpose of the EFC District is to encourage use of lands primarily for forest practices, the existence of parks within the district is also permitted (Washington County 1991). All of the land in the park boundary is within the EFC District; a significant amount of the land within several miles of the park boundary, particularly north, west, and south of the park, is in the EFC District as well. A significant portion of the land approximately 1 mile east of the park is designated as Exclusive Farm Use (EFU) (WACO 2002). According to the Washington County Comprehensive Plan, this zoning district intends “to preserve and maintain commercial agriculture land for farm use consistent with existent and future needs for agricultural products, forests, and open spaces” (Washington County 1991).

While the majority of lands adjacent to the park boundary are designated as EFC, there are lands nearby that are designated as EFU (previously discussed), Rural Industrial (R-IND), Agricultural and Forest-5 (AF-5), Agricultural and Forest-10 (AF-10), and Agricultural and Forest-20 (AF-20). Parcels with these designations are generally located in three small, separate clusters within the vicinity of the reservoir (Washington County Website). The first cluster is southeast of the reservoir, immediately downstream of Scoggins Dam, where approximately 210 acres of land are zoned as R-IND. According to the Washington County Comprehensive Plan, this zoning district “provides for county industrial uses needed to support the natural resource base consistent with the rural character and rural level of services” (Washington County 1991). The Stimson Mill, which operates a timber product processing and manufacturing facility, owns this land. Across Scoggins Valley Road from the Stimson Mill are 22 parcels, ranging in size from ¼ acre to 5 acres, zoned as AF-5. According to the Washington County Comprehensive Plan this zoning district “provides for rural residential uses while retaining the area’s rural character and conserving its natural resources” and requires a 5-acre minimum lot size for the creation of new parcels (Washington County 1991). There are several more parcels along Scoggins Valley Road that are zoned either AF-5, R-IND, and EFU. Farther east, most of the land is designated as EFU (Washington County Maps and Lands Record Website).

The second cluster of parcels near the park not designated as EFC is located approximately ½ mile north of the reservoir on Stepien Road and is comprised of several small parcels designated as AF-20. This zoning district provides for rural residential uses while retaining the area’s rural character and conserving its natural resources, similar to AF-5, but requires a 20-acre minimum lot size for the creation of new parcels (Washington County 1991). The third cluster is located at Cherry Grove, a

small community approximately 2 miles southwest of the reservoir. Parcels designated EFU, AF-5, AF-10, and AF-20 exist in Cherry Grove (Washington County Website). The AF-10 zoning district also provides for rural residential uses similar to AF-5 and AF-20, but requires a 10-acre minimum lot size for the creation of new parcels (Washington County 1991).

In 1994, when the EA was completed for the 1989 Master Plan, the park was considered a non-conforming use within the EFC District. As a requirement for capital improvements made to the park in the mid-1990s, a land use application was submitted for review by the Washington County Department of Land Use and Transportation (DLUT) in order to bring the park into conformance with local land use regulations. This application was approved to allow for recreation improvements and to replace the park's non-conforming status with a Special Use Approval (Reclamation 1994; pers. comm., C. Wayland, 2002).

3.2 Public Services and Utilities

Most U.S.-owned and WACO-managed public facilities at Henry Hagg Lake consist of recreation facilities such as day use areas with restrooms (discussed in greater detail in Section 3.3, Recreation). Utility infrastructure varies around the reservoir, ranging from limited facilities such as Scoggins Creek Picnic Area to fully developed facilities that provide electricity, water, and wastewater disposal. Police, fire, and emergency services are provided to the area by the Washington County Sheriff's Department and the Gaston Rural Fire District, as discussed below.

3.2.1 Electrical

West Oregon Electric Co-op provides electrical service in the area. Electrical power is available to most recreation sites, supplying light and power for restroom facilities and

maintenance needs. Specifically, service provided at the park administration station and maintenance yard, Recreation Area A East, Recreation Area A West, Recreation Area C, Sain Creek Picnic Area, and Elks Picnic Area is 480-volt, 3-phase. Power is also supplied to the water service plant adjacent to the Sain Creek Picnic Area. Public outlets that are 110-volt, single-phase are available in the pavilions at Recreation Area C. Site lighting is limited to surface-mounted fixtures at restrooms, and no roadway lighting is provided in the park. Distribution lines around the park are overhead pole-mounted. No natural gas is available within the park (pers. comm., C. Wayland, 2002).

3.2.2 Potable and Non-Potable Water

Four separate water systems supply water to various areas of the park, two potable and two non-potable. These systems currently supply an adequate amount of water to park facilities. Potable water is supplied to the north side of the park (Recreation Area A East and Recreation Area A West) by the Hillsboro Utility Water Commission (HUWC) system. The 12-inch diameter supply line to these areas is owned by HUWC and connects to a pumping station. The pumping facilities and 4-inch diameter transmission line from the pumping station are owned and maintained by WACO. The service line to the ranger station and maintenance yard from the 4-inch diameter transmission line is 1½-inch in diameter, and the service lines extending to the two recreation areas are ¾-inch diameter. All water supplied on this system is metered (pers. comm., C. Wayland, 2002).

Potable water is supplied to Recreation Area C and the Sain Creek Picnic Area by a system of wells. Water from the wells is pumped to Restroom 8 at the Sain Creek Picnic Area where it is pressurized and chlorinated before being distributed back to both areas. This system was installed during the 1997 upgrade to

the Sain Creek Picnic Area (pers. comm., C. Wayland, 2002).

Non-potable water is supplied to Recreation Area C and the Sain Creek Picnic Area by Sain Creek surface flows that are filtered and stored in a 15,000-gallon tank located at an old water treatment plant and pumping station approximately $\frac{1}{4}$ mile south of the creek. They are pressurized at the pumping station and distributed to both areas (pers. comm., C. Wayland, 2002).

Non-potable water is supplied at the Elks Picnic Area by an in-house water supply system. A pump and 600-gallon storage tank are located at the restroom and supplies water to two flush toilets only. These facilities are owned and operated by WACO. No water is currently provided to the Scoggins Creek Picnic Area (pers. comm., C. Wayland, 2002).

3.2.3 Wastewater

Wastewater is currently treated using conventional, on-site treatment and disposal units in all locations. All vault toilets in the park have been converted to flush toilets that utilize conventional septic disposal systems. There are currently six restrooms in operation and two boat waste dump stations in the park. There are three inactive restrooms located in Recreation Area A East, which is closed. WACO currently contracts with a local company to pump the solid waste from storage tanks associated with the septic systems. All tanks are pumped approximately once per year (pers. comm., C. Wayland, 2002).

Recreation Areas A East and A West share a common drain field disposal system. At Recreation Area A East, three restrooms drain to a septic tank system where solids are settled from the waste stream and primary treatment is provided. Each of the two septic tanks has an effective volume of 5,340 gallons. The effluent then drains to a concrete pumping vault where pumps convey it to a gravity drain field across the park road between Recreation Ar-

reas A West and A East. At Recreation Area A West, waste from two restrooms and one boat waste dump drain to a septic tank system similar to one used in Recreation Area A East. The effluent from this system is also pumped to the same gravity drain field that contains 14,000 lateral feet of 4-inch diameter perforated pipe. No evidence of distress or overloading of the drain fields has occurred, and none of the effluent has surfaced through the park road cutback downstream of the drain field (Reclamation 1994; pers. comm., C. Wayland, 2002).

Recreation Area C has a system similar to that of Recreation Area A. There are two restrooms in Recreation Area C, each of which has a septic tank system with an effective volume of 5,340 gallons. One of these systems also receives waste from a boat waste dump station. The effluent then drains to a concrete pumping vault where pumps convey it to a gravity drain field containing 3,550 lateral feet of 4-inch diameter perforated pipe located between the recreation area and park road. The system was checked in 1997 during upgrades to nearby Sain Creek Picnic Area, and there were no signs of distress or overloading in the system (U.S. Department of Interior 1994; pers. comm., C. Wayland, 2002).

The Elks Picnic Area has a restroom with two flush toilets. Two 1,000-gallon holding tanks collect sewage and require pumping approximately two to three times a year at current usage rates. The Scoggins Creek Area has portable toilets that are supplied by a private contractor who maintains them and pumps them weekly (pers. comm., C. Wayland, 2002).

3.2.4 Solid Waste

Solid waste collection occurs at trashcans located in the day use areas of the park; park employees check them daily and empty them at least once a week, depending on use levels. An average of 15-20 cubic yards of solid

waste is collected on a weekly basis during the summer season. WACO contracts with a local company to collect solid waste (pers. comm., C. Wayland, 2002). It is taken to a transfer station in Forest Grove and then to the Hillsboro Landfill in Washington County, which has capacity for approximately 25 more years.

3.2.5 Fire Protection and Emergency Services

Both the Gaston Rural Fire District (GRFD) and the Oregon Department of Forestry (ODF) are responsible for fire protection at the park. In general, GRFD is responsible for the southern two-thirds of the park, while ODF is responsible for the northern third of the park. The district line crosses the reservoir and park near the Recreation Area C Boat Ramp. In the case of fire response, GRFD and ODF are both first alarm providers for the park area and respond to calls, assisting each other during the response. However, ODF does not respond to emergency calls for medical or rescue situations. GRFD and ODF operate under a mutual aid agreement with each other as well as other fire protection providers in the area to assist each other when additional services are required (pers. comm., G. Juber, 2002 and J. Smith, 2002).

Response time to the dam or the Recreation Area C Boat Ramp by the GRFD is less than 5 minutes, while areas on the opposite side of the reservoir generally take up to 20 minutes to reach. In 2001, GRFD responded to 42 calls at the park and in the surrounding area (Scoggins Valley), including 21 for first aid, 20 for fire, and one other. GRFD has received funds from WACO in the past to provide service to the park. Washington County currently has an intergovernmental agreement with the GRFD that provides for an annual payment of \$10,000 to provide compensation for emergency response services to Henry Hagg Lake. ODF response time is about 12-15 minutes, depending on the location of personnel and equipment at the time of the call.

In the last 3 years (1999-2001), ODF has made seven runs responding to calls, four of which were in response to wildfires (pers. comm., G. Juber, 2002).

As of June 2002, GRFD personnel include one part-time chief, two full-time firefighters, and additional part-time assistance equaling 3 full-time positions. There are also 36 volunteer firefighters who work for the GRFD. GRFD equipment includes one rescue vehicle, three 1,000-gallon pumpers with the capacity to pump 250 gallons per minute, one 3,000-gallon water tender, two light brush-rigs, and two staff vehicles (pers. comm., J. Smith, 2002). ODF maintains a crew of 12 firefighters during the summer season, which typically begins around the end of June and ends with the coming of fall rains sometime in October. The Protection Unit Forester is one of two full-time positions supported year-round by ODF. ODF equipment for the Forest Grove Protection District includes three 500-gallon fire engine brush-rigs and three 200-gallon fire engine brush-rigs (pers. comm., G. Juber, 2002). The ODF office for the Forest Grove Protection District is in Forest Grove.

Both the GRFD and Metro-West Ambulance service respond to emergency calls in or near the park. When a 911 call is placed, the Washington County Consolidated Communication Agency (WACCCA) dispatch service determines which entities should respond to the call and contacts the appropriate dispatcher. GRFD responds to all fire and accident/emergency calls, while Metro-West typically only responds to emergency calls involving serious trauma, reports of chest pain, or drowning and water-related accidents. GRFD may request assistance from Metro-West at any time. Individuals requiring emergency medical facilities are transported to either Emanuel Hospital or Health Center and Oregon Health Sciences University Hospital. Lifeflight provides helicopter transport for critical cases to trauma centers at the same two hospitals (pers. comm., J. Smith, 2002).

There are several near-drownings and approximately one drowning death each year, as was the case in 2001 (pers. comm., M. Alexander, 2002). In 2001, Metro-West made a total of six runs to the park and eight runs to roads near the park, such as Scoggins Valley Road. Response to the park was for chest pain, a bee sting reaction, trauma, and possible near drowning. Response to roads surrounding the park was primarily for motor vehicle accidents. Response time for Metro-West is 11 minutes to the park entrance and up to 30 minutes once in the park. Response times vary depending on the location of the nearest ambulance (pers. comm., J. Lee, 2002).

3.2.6 Law Enforcement

The Washington County Sheriff's Department provides law enforcement throughout the county, having jurisdiction in all of the county's unincorporated areas. There is currently no specific contract between the Sheriff and Reclamation, and there is no specific assignment to the park.

On November 12, 2001, Congress passed Public Law 107-69. This law requires that the Secretary of Interior issue regulations necessary to maintain law and order and protect persons and property within Reclamation projects and on Reclamation lands. It also authorizes the Secretary to enter into agreements with State, Tribal, and local law enforcement agencies to carry out law enforcement at Reclamation sites and facilities, and to reimburse those agencies for their services.

The Sheriff has not established specific response times to the park. One deputy is on patrol in that area of the district and typically responds in less than 45 minutes. Historically, response times have varied due to the officer's location at the time of the call. Typical park disturbances that require law enforcement are vandalism, theft, domestic disturbances, alcohol-related misconduct, and more recently, gang activity. In 2000, a gang-related shoot-

ing occurred elsewhere in Washington County and the body was left on Herr Road outside of the park boundary (pers. comm., M. Alexander, 2002). Prank 911 calls are frequently placed from pay phones in the park. These calls are responded to on a routine basis in case there is an actual emergency. Disturbances are often reported by surrounding property owners and are typically related to littering, vandalism, parties, and unauthorized fireworks. Park rangers are always present during operating hours, have the authority to cite visitors for park rule violations, and communicate with the Sheriff as needed (pers. comm., A. Julian, 2002).

The Washington County Sheriff, the primary provider of law enforcement on the reservoir, has an annual contract with the State Marine Board to provide marine patrol services from Memorial Day to Labor Day. In 2002, the reservoir began opening earlier than in previous years (March 1) for fishing season and began closing later (November) than in past years. The Sheriff requested additional funds from the State Marine Board to patrol the reservoir during this time. Due to this request being denied, the WACO Sheriff did not provide marine patrols prior to Memorial Day or after Labor Day in 2002. The Sheriff's marine patrol has a building at the Recreation Area A Boat Ramp from which the patrol operates. Their equipment includes an 18-foot boat, a flat bottom boat, and a zodiac (inflatable) boat. Potential activities include boat inspections (both on the water and at the boat ramp), emergency response, righting capsized vessels, towing disabled vessels, removing hazards in the water, and checking for fishing licenses (pers. comm., A. Julian, 2002).

Boater conflicts on the reservoir are fairly limited due to the high visibility of enforcement at the park and on the reservoir and because the reservoir has been divided into two sections. A buoy line is located from approximately the Recreation Area A West Boat Ramp across the reservoir to a point immediately south of the Sain Creek inlet. The south-

east side of the lake has a 35 mph speed limit allowing for pleasure boating, water-skiing and PWC use. The northwest side of the reservoir is designated as a no-wake zone and allows for slow boating, windsurfing, sailing, canoeing, and kayaking. Boater conflicts that do arise are typically in regard to congestion on the reservoir and at the boat ramps during hot summer, heavy use days (pers. comm., C. Wayland, 2002).

The Sheriff's Marine Patrol is augmented by U.S. Coast Guard Auxiliary Flotilla 712, a volunteer retired State Police program, and the Sheriff's Mounted Posse. The Coast Guard Auxiliary Flotilla maintains a booth at the park from which they perform safety checks and generally assist the public. They do not, however, provide any law enforcement functions. At the request of the Sheriff, the Auxiliary provides boats and personnel on the water to offer assistance, particularly during busy weekends and holidays. Their primary role is to provide education and distribute printed materials to facilitate boater safety. There is no formal contractual agreement between WACO and the Coast Guard Auxiliary Flotilla. For the past 4-5 years, enforcement of park and reservoir rules has been augmented by volunteer State Police who work covertly on the reservoir. They have the authority to cite boaters for rule infractions, such as those related to safety and alcohol use. This service is provided to WACO at the discretion of the volunteers and no formal contract exists. In addition, enforcement is also provided by the Sheriff's Mounted Posse on summer weekends. The Mounted Posse patrols the park grounds on horseback and provides general assistance and information. This service is also provided to WACO at the discretion of the Mounted Posse with no formal contract. Collectively, these providers maintain a high level of visibility at the reservoir, which lessens the potential for user conflict (pers. comm., C. Wayland, 2002).

3.3 Recreation

Washington County is in an area serviced by Metro, a regional government that serves three adjacent counties and 24 cities in the Portland, Oregon metropolitan area. Metro's Regional Parks and Greenspaces Department operates 21 regional parks and natural areas. Only one of Metro's facilities, Blue Lake Regional Park, is similar to Henry Hagg Lake; however, Blue Lake itself is only 64 surface acres. Approximately 15 miles west of Portland, Blue Lake Regional Park provides opportunities for boating, fishing, picnicking, swimming, and special events. Surrounding counties also provide numerous recreation facilities close to the Portland metropolitan area. Most of these facilities, however, are associated with one of the many large rivers in the area (e.g., Columbia River) and provide a somewhat different recreation environment than found at Henry Hagg Lake. Nonetheless, these facilities provide similar recreation opportunities such as boating, picnicking, swimming, and fishing. Nearby, in Washington State, Vancouver-Clark Parks & Recreation Department is a significant recreation provider for the city of Vancouver and Clark County. The department operates three parks (Vancouver Lake Park, Salmon Creek Park, and Lacamas Lake Park) that are somewhat similar to Henry Hagg Lake, although these parks are much smaller in size (200-400 acres) and, unlike at Henry Hagg Lake, motorized boats are not permitted (Vancouver-Clark Parks & Recreation Department 2002). Overall, due to its large size, Henry Hagg Lake is a unique recreation facility in the Portland metropolitan area.

3.3.1 Recreation Facilities

Existing recreation facilities at Henry Hagg Lake/Scoggins Valley Park are located in five primary areas: Recreation Area A West, Scoggins Creek Picnic Area, Recreation Area C, Sain Creek Picnic Area, and Elks Picnic