

**Appendix 2-4 –
Spada Lake Recreation Position Paper**

City of Everett Spada Lake Recreation Position Paper

April 2005 (updated August 2007)

Introduction

The City of Everett supplies drinking water to more than 500,000 people in Snohomish County. The City of Everett's source of drinking water is the Sultan River, located approximately 25 miles east of Everett.

Spada Reservoir was created by construction of Culmback Dam which is located at river mile 15.9 of the Sultan River. The Jackson Project supplies source water from Spada Reservoir to the City of Everett's water system. The Snohomish County PUD and the City of Everett are co-licensees of the Jackson Project. The Jackson Project generates power for Snohomish County PUD and supplies drinking water to the City of Everett at Lake Chaplain (figure 1).

The Jackson Project operates under the authority of a license originally issued in 1961 to the Snohomish County PUD and the City of Everett by the Federal Power Commission, now the Federal Energy Regulatory Commission (FERC) in 1961. The original FERC license authorized stage 1 construction and operation of Culmback Dam for water supply only. The FERC license was amended in the early 1980s to authorize raising Culmback Dam for power generation (stage 2).

The FERC license for the Jackson Project expires in 2011. In accordance with a new FERC licensing process adopted in July 2003, the Integrated Licensing Process (ILP), relicensing of the Jackson Project will formally begin on December 1, 2005. Recreation within Jackson Project limits, and in particular around Spada Reservoir, is anticipated to be a key issue during relicensing. The intent of this document is to update and formalize the City of Everett's position regarding recreation within the Spada Reservoir watershed.

History of Recreation within Spada Reservoir Watershed

The vast majority of land within the Spada Lake watershed is owned by federal, state or local government (figure 2). Approximately 2,340 acres of land along the shoreline of Spada Reservoir is owned by the Snohomish County PUD. Washington State Department of Natural Resources (DNR) is the largest landowner with 27,500 acres. The United States Forest Service (USFS) owns approximately 10,900 acres, primarily in the highest elevations of the watershed. There are only 1,165 acres of privately owned land, with most of this adjacent to Williamson Creek.

Recreation on Snohomish County PUD land is regulated primarily by articles 44 and 52 of the FERC license. Article 44 requires the co-licensees to allow public access for purposes of hunting and fishing within the Jackson Project boundary. However, article 44 also allowed the co-licensees to close areas within Jackson Project boundary if necessary

to protect public health or safety. During stage 1, Jackson Project recreational facilities included two boat launches on Spada Reservoir, fishing along the south shore of Spada Reservoir, picnicking and overlook sites.

Article 52 of the amended FERC license required the co-licensees to revise the recreational plan for stage 2 development of the Jackson Project. After consultation with federal and state agencies, the final revised recreation plan was approved by FERC in December 1994. However, FERC reserved the right to require changes to the recreation plan, including requiring overnight camping. The revised recreation plan called for the development of eight recreation sites within Jackson Project boundaries (figure 3). These recreation facilities, which were completed in 1991, are described below:

Site 1: This day-use site acts as the gateway to the Spada Reservoir recreation sites for those entering the area on the Sultan Basin Road. Parking is provided as well as a vault toilet building, a short trail, and trash receptacles. Registration is required at this site prior to entering the watershed.

South Fork (Site 2): Approximately 3.1 miles from Olney Pass and located on the southern shore of Spada Lake, this day-use site includes picnic sites, covered shelters, signage, vault toilet building, trash receptacles, parking, and a car-top boat launch.

South Shore (Site 3): Approximately 5.0 miles from Olney Pass and 1.9 miles past the South Fork site, this day-use site provides a vault toilet building, parking, gravel boat launch, signage, and trash receptacles.

Nighthawk (Site 4): Approximately 5.5 miles from Olney Pass, this day-use site includes covered picnic shelters, signage, vault toilet building, parking, boat launch, and trash receptacles.

Bear Creek Viewpoint (Site 5): Approximately 6.0 miles from Olney Pass, this viewpoint offers two scenic overlooks, vault toilet building, signage, and parking. The DNR's Boulder Lake Trailhead and Grieder Lake Trailhead are located nearby.

Culmback Dam Viewpoint (Site 6): This day-use viewpoint at the dam previously offered a scenic overlook, vault toilet building, signage, and trash receptacles; however, general public access has been restricted due to post-9/11 security concerns.

Pilchuck Entry (Site 7): Originally provided several directional signs for those entering the basin from DNR's Pilchuck Mainline Road. The site has since been abandoned due to heavy vandalism.

North Shore (Site 8): Located north of the dam, this day-use site includes two scenic overlooks; covered picnic shelters vault toilet building, parking, and signage. Access to this site has been restricted because of the post-9/11 road closure to Culmback Dam and road closures by the DNR. In 2005, DNR closed the SL-P-5000 road to all motorized vehicles. Site 8 remains accessible only to hikers, mountain bikers, illegal off-road vehicle (ORV) users, and equestrians via the gated DNR maintenance road SL-P-5000.

Historical recreational uses on DNR land include fishing, hunting, hiking, camping, mining and sightseeing. Recreational uses on DNR land are regulated by numerous state laws, rules and regulations including RCW 79.10.120, WAC 332-52 and RCW 79.71. RCW 79.10.120 allows recreational uses provided those uses are compatible with DNR's financial obligations of trust management.

WAC 332-52 encourages public use of all roads and trails under DNR's jurisdiction provided the use is consistent with DNR's trust responsibilities, conservation of soil and water, and timber management. However, public use of DNR land is subject to compliance with many restrictions including sanitation, noise restriction, safe vehicle operation, discharge of firearms, camping and vandalism. DNR revisions to WAC 332-52 are in process.

Over half of DNR land in the watershed has been designated Natural Resource Conservation Areas (NRCAs). As stated in RCW 79.71, one of the objectives of NRCA designations is to conserve areas for their outstanding scenic and ecological values and provide opportunities for low-impact public use. However, RCW 79.71 requires the adoption of management plans to specify what types of management activities and public uses will be permitted in each NRCA; such uses must be consistent with the conservation purposes RCW 79.71. No management plans have been adopted to date for the three NRCAs in the watershed. Current recreational uses on DNR land consist primarily of camping at Greider and Boulder Lakes, hiking to Greider and Boulder Lake, hiking on other designated trails and hunting. Since closure of the North Shore Road in the 1990s, recreational use occurs primarily on DNR land south of Spada Reservoir.

Recreational use of land currently owned by USFS has been very limited. There are no designated campgrounds, trails or picnic areas on USFS land. Timber harvesting has not occurred on any USFS land for more than 20 years. Therefore, there are no logging roads accessible to the public on USFS land.

A wilderness designation (the Wild Sky Wilderness Area) that would include most of the USFS land in the watershed was considered by Congress in 2004. This designation would have further limited recreational opportunities on USFS land. Although the 2004 proposed wilderness designation was voted down by Congress, new legislation for the Wild Sky Wilderness Area is in process and expected to pass and be signed in October 2007.

There are eleven mines on USFS land. However, none of these mines are active.

Mining has historically been the primary recreational use on private land in the watershed. However, none of these private mines are active. An off road vehicle (ORV) recreational area was opened in the 1970s on private land north of Spada Reservoir. However, there were very few visitors to the park and the park was closed shortly after opening.

Over the last ten years, the number of people registered at Olney Pass has averaged 4,345 people per year. Compliance with the requirements to register at Olney Pass is estimated

to be 50% by watershed patrolman. Therefore, annual visitation to PUD and DNR land is estimated at about 9,000 over the last ten years.

Potential Water Quality Impacts of Recreation

Many of the recreational activities that occur within Jackson Project boundaries and adjacent lands, if unregulated, have the potential to adversely affect the quality of the City of Everett's water supply. These activities include boating on Spada Reservoir, fishing from the shore of Spada Reservoir, hiking, overnight camping and off road vehicle use. The potential water quality impacts of these recreational activities are largely due to: 1) human waste, 2) fuel spills and 3) soil erosion.

Human waste includes many contaminants that can adversely affect drinking water quality. Bacteria from human waste, if ingested, can cause illness in humans including cholera, typhoid fever and hepatitis A (American Water Works Association 1999). Nitrogen and phosphorus in human waste (Hole and Heizer 1973) can cause increased algae growth in surface waters such as Spada Reservoir (Cooke et al. 1993). Increased algae growth can cause taste and odor problems in drinking water supplies and increase the production of disinfection by-products, which are regulated contaminants (Lee and Jones 1991).

Disinfection by-products such as trihalomethanes form when organic matters including algae are chlorinated at water treatment facilities to kill bacteria and other pathogens. Disinfection by-products such as trihalomethanes can be mutagenic and carcinogenic (Martin 1993). The City of Everett chlorinates its water supply at the Lake Chaplain Water Treatment Plant. Therefore, if human wastes of recreational users in the watershed were not disposed of properly, there would be an increased potential for taste and odor problems and disinfection byproducts in the City of Everett's water supply.

Two components of fuel, benzene and ethylbenzene, are carcinogenic. The maximum contaminant level (MCL) for these two organic chemicals are .005 and 0.7 parts per million (ppm), respectively (Wash. St. Dept. of Health 2004). According to the material safety data sheet produced by Chevron Oil Company, one gallon of unleaded fuel would contaminate 5,000,000 gallons of water to the MCL for benzene. Controlling the use of internal combustion engines on Spada Reservoir, therefore, is critical to protecting the quality of Everett's water supply.

Vehicle travel off road or off trail is prohibited on DNR land by WAC 332-52 unless designated by DNR. DNR has not designated off-road vehicles (ORVs) in the watershed. Therefore, ORV use is prohibited in the watershed. Despite this prohibition ORV use does occur in the watershed. Therefore, the effects of ORV use on soil erosion are addressed in this policy.

ORVs can cause significant soil erosion when traveling across roadless terrain, in some cases more than three times the natural rate of soil erosion (Webb et al.1978; Kay 1981). Eroded soil that is delivered to surface waters in the watershed during stormwater runoff

events could increase the turbidity of Everett's water supply, particularly if the soil eroded is fine-grained material.

Turbidity is a measurement of solids and organic matter in water that scatter light. Turbidity is caused by suspended organic and inorganic matter (APHA 1989). Turbidity must be minimized to optimize disinfection of drinking water (AWWA 1999). Potable water systems in Washington State are required to achieve an 80% reduction in source water turbidity (Wash, St Dept of Health 2004).

The majority of the soil units (by surface area) in the Spada Reservoir watershed has a high erosion potential, are fine-grained and/or are naturally unstable (Wash St. DNR undated). Therefore, eroded soil caused by ORV use in the watershed that is delivered to surface waters can increase turbidity and, potentially, adversely affect the quality of Everett's water supply.

Existing Water Quality Regulations

The quality of the City of Everett's water supply has historically been excellent, particularly since the completion of the Lake Chaplain Water Filtration Plant in 1983. The City of Everett's water supply is better than all federal and state drinking water regulations. This high quality water supply is not simply a result of effective pollutant removal that occurs at the Lake Chaplain Water Filtration Plant. Controlling potential sources of water pollution within the Spada Reservoir watershed is also a very important factor in protecting the high quality of the water supply.

Controlling potential sources of pollution is a practice that is both recommended and required by water supply organizations and regulatory authorities. The American Water Works Association (AWWA), an organization representing thousands of public water supplies across the country, recently adopted a revised policy regarding recreational use of domestic water supply reservoirs. This policy states, in part, that body contact recreation and internal combustion engines on boats should be discouraged. AWWA's policy on source water protection also stresses the importance of controlling and minimizing sources of pollution to domestic water supplies. Source water protection is considered the most important element of a multi-barrier approach to protecting, improving and enhancing safe drinking water. Both of these AWWA policies are included in the appendix.

The Washington State Dept of Health, the state agency that regulates public water systems, requires all water purveyors to develop a watershed control program for their source of supply (WAC 246-290-135). The watershed control program must include an assessment of all potential sources of pollution and measures to control these potential sources. These control measures include landowner agreements, inspection, surveillance and monitoring (Wash. St. Dept. of Health 1997). WAC 246-290-135 is included in the appendix. The City recommends that future licenses include restrictions on activities that harm water quality.

To control potential sources of pollution in the watershed, and as authorized by the FERC license, the co-licensees have adopted regulations to control public use of Jackson Project recreational facilities and other PUD-owned facilities. The current regulations are:

1. Visitors must register before entering the watershed.
2. The following activities are prohibited:
 - a) Depositing human waste, animal waste or litter in the watershed.
 - b) Overnight camping except at designated DNR sites.
 - c) Swimming, wading or other water contact activity.
3. Picnicking is allowed only at designated areas.
4. Shore fishing is allowed only on the south shore of Spada Reservoir.
5. Boats shall be launched only at designated launch areas and may land only on the south shore of Spada Reservoir.
6. Internal combustion engines are prohibited on Spada Reservoir.
7. No inflatable devices (including rafts and float tubes) are allowed on Spada Reservoir.
8. Pets must remain in vehicles or on a leash at all times.
9. Livestock is prohibited in the watershed.
10. No target shooting.
11. No consumption of alcohol or drugs.

City's Position on Recreation in Spada Watershed

Given that the City of Everett currently maintains a very high quality water supply, the City of Everett will support recreational uses in the watershed that are no more intensive than the current recreational uses in the watershed. However, the compatibility between the existing recreational uses in the watershed and a high quality water supply is possible, in part, because of the co-licensees' active role in enforcing water quality regulations and monitoring land uses in the watershed. Therefore, the City of Everett will continue to enforce the existing water quality regulations described above. In addition, the City of Everett will:

- Advocate for low intensity recreation in the watershed, such as presently exists, that is consistent with protection of the quality of Everett's water supply.
- Discourage any expansion of overnight camping in the watershed.
- Work with DNR to eliminate the use of ORVs in the watershed.
- Use water quality monitoring, as appropriate, to quantify potential or actual sources of pollution in the Spada Reservoir watershed.
- Continue daily watershed patrols.
- Review and comment on any proposed land use changes that could intensify recreational activity in the watershed and/or impact water quality.
- Work with property owners in the watershed to minimize recreational activities with the potential to impact the quality of Everett's water supply.

- Work with Snohomish County to adopt an ordinance that restricts public use of land in the watershed to those uses compatible with protection of public health and safety and provides watershed patrolmen the police powers to enforce those restrictions on all state and PUD land in the watershed.

List of References

American Water Works Association. 1999. Waterborne pathogens. AWWA Manual M48.

American Public Health Association, American Water Works Association and Water Pollution Control Federation. 1989. Standard methods for the examination of water and wastewater. American Public Health Association Wash D.C.

Cooke, G.D., Welch, E.B, Peterson, S.A. and Newroth, P. R. 1993. Restoration and management of lakes and reservoirs. Lewis Pub. Boca Raton, Flor.

Hole, F, and Heizer, R.F.. 1973. An introduction to prehistoric archeology. Holt, Rhinehart and Winston, Inc. NY.

Kay, J. 1981. Evaluating environmental impacts of off-road vehicles. J of Geography 80(1): 10-18.

Lee, G.F. and Jones, R.A. 1991. Regulating Drinking Water Quality at the Source G. Fred Lee & Associates. El Macero, CA

Martin, A.B. 1993. The contribution and relative significance of terrestrial leak influx to the carbon and trihalomethanes precursor concentrations in drinking water lakes and reservoirs. PhD dissertation, Kent St Univ. Kent, OH.

Washington State Dept. of Health. 1997. Water system planning handbook. DOH PUB#331-068.

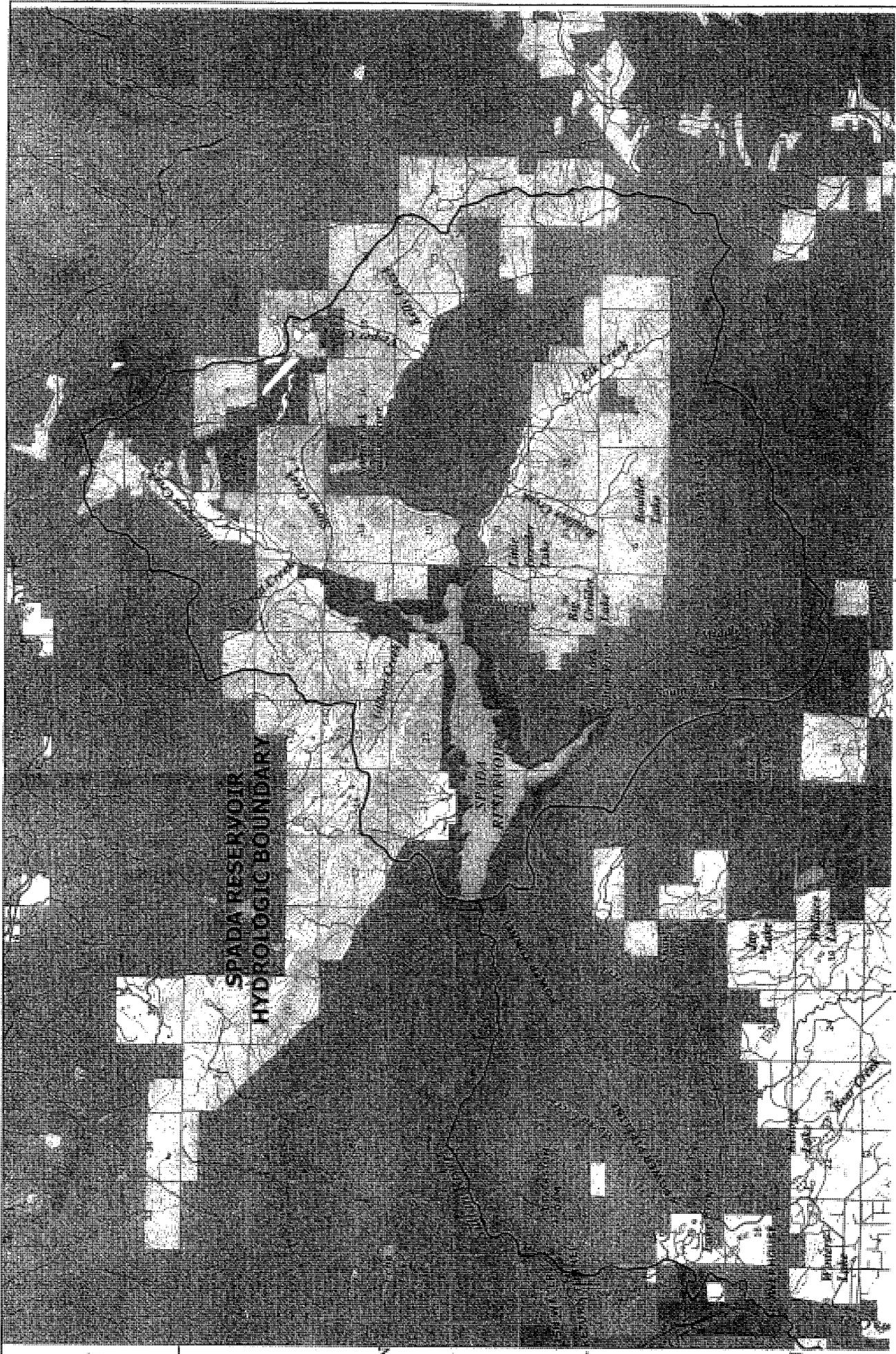
Washington State Dept. of Health. 2004. WAC 246-290 group A public water system requirements.

Wash. St. Dept. Of Natural Resources. Undated. State soil survey report for the Northwest area. Forest Land Management Division.

Webb , R.H., Raglund, C, Godwin, W.H. and Jenkins, D. 1978. Environmental effects of soil property changes with off-road vehicle use. Envr Mgmt vol 2 (3) pp. 219-233.



Figure 1. The Henry M. Jackson Hydroelectric Project.



T30N
T29N
T28N
R09E
R10E
R11E

OWNERSHIP:
 Map Produced: 3/3/2005
 Map Scale: 1" = 1.4 miles

Major Public Lands:
 City
 PUD
 USFS
 CNR
 CNR NRCA
 Private

FIGURE 2 OWNERSHIP MAP OF LAND WITHIN THE SPADA RESERVOIR WATERSHED

This map has been produced using the Best Information Available. However, the City of Everett is not responsible for its accuracy.

http://www.cityofeverett.com/Planning/Planning/land.asp





Figure 3. Jackson Project Recreation Site Locations

APPENDIX

Recreational Use of Domestic Water Supply Reservoirs

Adopted by the Board of Directors June 13, 1971, reaffirmed Jan. 28, 1979, and Jan. 25, 1987, revised June 23, 1996 and June 13, 2004

Because the American Water Works Association (AWWA) supports the principle that water of highest quality should be used as the source of supply for public water systems, the risks and potential mitigation requirements of any recreational activity on water supply reservoirs should be identified and publicly evaluated. In the evaluation, utility- and customer-determined acceptable levels of risk should be given the highest consideration.

Recreational use of source waters and the supporting land-based infrastructure necessary to support recreational activities increase the potential for microbial, physical, and chemical contaminants in the drinking water produced from these source waters. When making decisions regarding recreational uses of water supply reservoirs, utilities should give strong consideration to the potential for water quality degradation, the level of increased risk and customer acceptance of that risk, the current level of treatment, and additional treatment requirements, uncertainties, and costs that may be incurred.

To address potential recreation impacts, utilities and other responsible parties should monitor water quality. This information should be used to assess the appropriate level of recreational use of water resources and other monitoring required to evaluate the long-term effects of such recreation. The costs for such monitoring, evaluations, and mitigation should be borne by those proposing or benefiting from the recreational activity, not by the utility or its customers.

If recreation already exists on a reservoir, the water utility should work with other stakeholders to develop an integrated reservoir management plan to evaluate and, if necessary, mitigate water quality impacts and minimize increased risks. **Body-contact recreation (swimming, water skiing, wind surfing) and use of polluting two-cycle gasoline engines on boats should be discouraged.**

Protection of public health and drinking water quality should be the highest priority in operational decisions for reservoirs used jointly for water supply and recreation.

Finished water reservoirs should not be used for any form of recreation under any circumstances.

AWWA Policy on Recreation in Water Supply Reservoirs

AWWA Government Affairs

Source Water Protection

(Approved April 11, 1997)
To Be Published in *AWWA MainStream*

Statement of Principles

The American Water Works Association is dedicated to providing the public with an adequate supply of clean, safe drinking water. AWWA is committed to assuring that water resources are managed in a manner consistent with the protection and enhancement of source waters for current and future supplies of drinking water. Source water protection (SWP) is a program of actions, policies, and practices to be undertaken by water suppliers, government agencies, institutions, or individuals to advance these goals.

AWWA promotes a multiple-barrier approach to providing safe drinking water that includes SWP, treatment as appropriate, distribution system maintenance, and monitoring. SWP may reduce health risks and treatment costs and improve finished water quality. SWP programs may also provide ancillary benefits of enhancing water quality for other users and improving the natural and aesthetic environments of communities. Accordingly, SWP should be pursued diligently for every water supply source.

SWP programs must be implemented in a context of supporting and competing public needs. They also must be flexible enough to address threats to source water quality and opportunities for improvement that vary from site to site and evolve over time. Regulatory programs and subsidies at all levels of government that are related to water resource protection should focus on existing or potential sources of drinking water. In these programs, SWP goals should be added or elevated in importance.

Water suppliers, regulators, and local landowners and municipalities share responsibility for accomplishing source water protection. Property owners must bear responsibility for preventing and abating pollution emanating from their holdings. AWWA supports the interests of water suppliers and of consumers whose health and welfare could be affected by unrestricted exercise of property rights upstream. However, AWWA recognizes the need to be sensitive to property rights and to avoid imposing undue burdens on parties who may be affected by source water protection measures.

The Road to a Source Water Protection Program

A basic premise for the implementation of source water protection programs is the multiple-barrier approach to protecting water supplies and public health. Through the establishment of multiple barriers that include source water protection, treatment as appropriate, distribution system maintenance, and monitoring, water suppliers are able to assure the quality and safety of drinking water for their consumers. Source water protection represents a first and most important step in safeguarding public water supplies.

There are some common elements for successful source water protection programs: they account for local conditions, incorporate diverse interests, require commitment to the SWP process by all involved parties, and are sustainable over the long term. Source water protection requires a sustained commitment of policy, as well as financial and technical resources over a time span of decades, not just years. Some important water quality benefits of source water protection may not be measurable in the short run. In addition, a long-term commitment is necessary to assure the protection of high-quality water sources so that they remain available for future generations.

One of the most difficult issues in an SWP plan is the establishment of equity in sharing the responsibility and expense of these programs. Source water protection efforts often are hampered by issues of who benefits and who pays. The following guidelines have been used to resolve these issues:

- Sources of pollution bear the responsibility for remediation; in other words, the polluter pays.
- Open and active communication, flexibility, and participation in the SWP process by involved parties can overcome actual and perceived imbalances of equity.
- Federal, state, and local resources can be applied to help address the equity issue.
- Consideration should be given to the value that source water protection programs can provide to a community through environmental benefits -- such as wildlife habitat and open space -- as well as improved quality and quantity of available resources.
- Appropriate compensation for lost or diminished use of property because of source water protection restrictions may be considered in some cases.

These guidelines can help balance the rights of property owners and others affected by source water protection measures with the rights of consumers whose health and welfare depend on the quality of source waters that could be degraded by the exercise of unrestricted property rights.

Developing Resources for Source Water Protection

A challenge incumbent upon successful, sustainable SWP programs is developing adequate structural and financial resources to support them. Some specific options include the following:

- State and federal governments tailoring legislative and regulatory agendas, resources, and programs to support source water protection.
- State governments refocusing and allocating a portion of resources and funding to source water protection. The states should secure adequate legislative and regulatory authority, e.g., planning and regulatory enforcement, for source water protection programs. This could also include levies on polluters or pollutants (pesticides, herbicides, fertilizers, etc.), with the proceeds supporting cleanup efforts.
- Local governments supporting source water protection with appropriate land use management and regulatory enforcement and by encouraging support from local grassroots efforts, environmental groups, and community groups.

- Water suppliers taking an active role in protecting their source waters by providing organizational, technical, monitoring, and financial resources and by harnessing resources available from federal, state, and local programs and institutions and from volunteers.
- Private organizations initiating source water protection programs and participating in cost-sharing arrangements.

Recommendations:

1. Water suppliers, regulators, and local landowners and municipalities share responsibility for accomplishing source water protection. Existing federal and state programs need to be tailored to support a local and regional approach to the development and implementation of source water protection programs and activities.
2. Recognizing that significant pollution of drinking water sources is occurring now, various federal and state legislative and regulatory programs should be directed to stress the protection of water resources for existing or potential drinking water supplies on a priority basis. Source water protection goals should be included in programs and, where already included, elevated in importance.

Where necessary and appropriate, new or expanded regulatory programs for source water protection should be implemented for specific river basins, watersheds, or aquifers via state or regional initiatives. This implies an integrated look at all the activities within an aquifer or watershed to assess priorities and place priority on certain pollution-protection programs that offer the best net economic and environmental benefit.

3. Water suppliers should develop written source water management plans to prevent or reverse water quality degradation. The SWP plans should delineate and characterize specific source water areas (watershed, wellhead, or recharge areas), should identify threats to water quality, and should provide a strategy for ongoing management of conditions and activities within these areas that may affect source water quality. The plans should also specify resource requirements for communications, implementation, and program assessment.

(ii) Wellhead protection area (WHPA) delineation for each well, wellfield, or spring with the six month, one, five and ten year time of travel boundaries marked, or boundaries established using alternate criteria approved by the department in those settings where ground water time of travel is not a reasonable delineation criteria. WHPA delineations shall be done in accordance with recognized methods such as those described in the following sources:

(A) Department guidance on wellhead protection; or

(B) EPA guidance for delineation of wellhead protection areas;

(iii) An inventory, including identification of site locations and owners/operators, of all known and potential ground water contamination sources located within the defined WHPA(s) having the potential to contaminate the source water of the well(s) or spring(s). This list shall be updated every two years;

(iv) Documentation of purveyor's notification to all owners/operators of known or potential sources of ground water contamination listed in (c)(B)(iii) of this subsection;

(v) Documentation of purveyor's notification to regulatory agencies and local governments of the boundaries of the WHPA(s) and the findings of the WHPA inventory;

(vi) A contingency plan to ensure consumers have an adequate supply of potable water in the event that contamination results in the temporary or permanent loss of the principal source of supply (major well(s) or wellfield); and

(vii) Documentation of coordination with local emergency incident responders (including police, fire and health departments), including notification of WHPA boundaries, results of susceptibility assessment, inventory findings, and contingency plan.

(4) Watershed control program.

(a) Purveyors of water systems using surface water or GWI sources shall develop and implement a watershed control program in accordance with Part 6 of chapter 246-290 WAC as applicable.

(b) The watershed control program shall be part of the water system plan required in WAC 246-290-100 or the small water system management program required in WAC 246-290-105.

(c) The purveyor's watershed control program shall contain, at a minimum, the following elements:

(i) Watershed description and inventory, including location, hydrology, land ownership and activities that may adversely affect source water quality;

(ii) An inventory of all potential surface water contamination sources and activities, including identification of site locations and owner/operators, located within the watershed and having the significant potential to contaminate the source water quality;

(iii) Watershed control measures, including documentation of ownership and relevant written agreements, and monitoring of activities and water quality;

(iv) System operation, including emergency provisions; and

(v) Documentation of water quality trends.

(d) The purveyor shall submit the watershed control program to the department for approval. Following departmental approval, the purveyor shall implement the watershed control program as approved.

(e) Purveyors of systems using unfiltered surface or GWI sources and meeting the criteria to remain unfiltered as specified in WAC 246-290-690 shall submit an annual report to the department that summarizes the effectiveness of the watershed control program. Refer to WAC 246-290-690 for further information about this report.

(f) The purveyor shall update the watershed control program at least every six years, or more frequently if required by the department.

[Statutory Authority: RCW 43.02.050 [43.20.050], 99-07-021, § 246-290-135, filed 3/9/99, effective 4/9/99. Statutory Authority: RCW 43.20.050, 94-14-001, § 246-290-135, filed 6/22/94, effective 7/23/94; 93-08-011 (Order 352B), § 246-290-135, filed 3/25/93, effective 4/25/93.]