The City of Medical Lake

2014

Shoreline Master Program

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Executive Summary

The 1971 Washington State Legislature found that shorelines of the state were among the most valuable and fragile of its natural resources. It also found that there was great concern throughout the state with regards to their utilization, protection, restoration and preservation. With those concerns they passed the Shoreline Management Act (SMA) of 1971 and ratified by the people at the general election in November, 1972. This piece of legislature required cities and counties to consider land-use practices and their effects on surface waters within 200 feet of the ordinary high-water mark. Each city and county was required to write a Shoreline Master Plan, based on Washington State Department of Ecology guidelines. These plans indicate how shorelines will be used and developed and include regulations to ensure compliance. In 2004 the Department of Ecology issued new guidance to the Act, and many of the original plans are undergoing a major revision, including Medical Lake's. The new guidance has ambitious goals. Shoreline Master Plans are to include policies and regulations designed to achieve a no net loss of shoreline ecological functions and provide for the restoration mitigation for shorelines in which their ecological functions have been impaired.

The basic intent of the law is to protect the public interest in the state's shorelines by coordinated planning while at the same time recognizing and protecting private property rights that are consistent with the public interest. The policies of the Act are directed to public use and enjoyment of shorelines, while integrating principles of environmental preservation and restoration. Uses of the shorelines of the state must be designed and conducted in a manner, which will protect against adverse effects to the public health, the land and its vegetation, wildlife, while also protecting the waters of the state and their aquatic life The shorelines of the state are defined by state law and in the City of Medical Lake include all land within 200 feet of

the ordinary high water mark on Medical Lake, and identified shorelines of West Medical Lake and Silver Lake and the 100 year flood-plain in designated areas.

A shoreline inventory has been completed by the City of Medical Lake, which evaluates the natural characteristics of shoreline areas and compiles information on existing zoning, land uses and ownership patterns. The inventory and field inspections are the basis for designation of shoreline environments. In order to plan and effectively manage shoreline resources, a system of categorizing shoreline areas is necessary. This system of describing environments is designed to aid in providing a basis for applying policies and regulations within distinctively different shoreline areas. In Medical Lake, three (3) of the six (6) state identified shoreline environments designations have been used; they are Natural, Urban Conservancy and Shoreline Residential. Consistent with the Shoreline Management Act, goals and policies have been developed for each of the following elements in each shoreline environment: Shoreline Use, Economic Development, Public Access, Recreation, Circulation, Conservation, History, Culture and Science, Flooding, Shoreline Restoration and Protection, Residential' Education and Private Property Rights. In addition, implementing regulations have been developed to guide development and regulate uses through a permit system designed to achieve the goals of the Shoreline Management Act, while implementing the City's underlying Comprehensive Plan.

Chapter 1 Introduction

Shorelines of Statewide Significance

Purpose and Intent
Authority
Shoreline Systems
Land Use – Water Quality

In 1971 the Shoreline Management Act was passed where the legislature found that shorelines of the state were among the most valuable and fragile of its natural resources and found that there was great concern throughout the state relating to their utilization, protection, restoration and preservation. In addition, it found that ever increasing pressure of additional uses, required increased awareness in coordinating the management and development of the state's shorelines. In the implementation of this policy the public's opportunity to enjoy the physical and aesthetic qualities of natural shorelines of the state is to be preserved to the greatest extent feasible, consistent with the overall best interest of the state and the people generally. To this end, uses shall be preferred which are consistent with control of pollution and prevention of damage to the natural environment, or are unique to or dependent upon use of the state's shoreline. Alterations of the natural condition of the shorelines of the state, in those limited instances when authorized, shall be given priority for single family residences and their appurtenant structures, ports, shoreline recreational uses including but not limited to parks, marinas, piers, and other improvements facilitating public access to shorelines of the state, industrial and commercial developments which are particularly dependent on their location on or use of the shorelines of the state and other development that will provide an opportunity for substantial numbers of the people to enjoy the shorelines of the state.

I. Shorelines of the State

In 2003 the Department of Ecology adopted new guidelines to the Shoreline Management Act (SMA), which requires counties and cities to undertake a comprehensive review and update of its Shoreline Management Plan (SMP). Field inventories, shoreline designations, goals, policies and use regulations all fell into the review and update process.

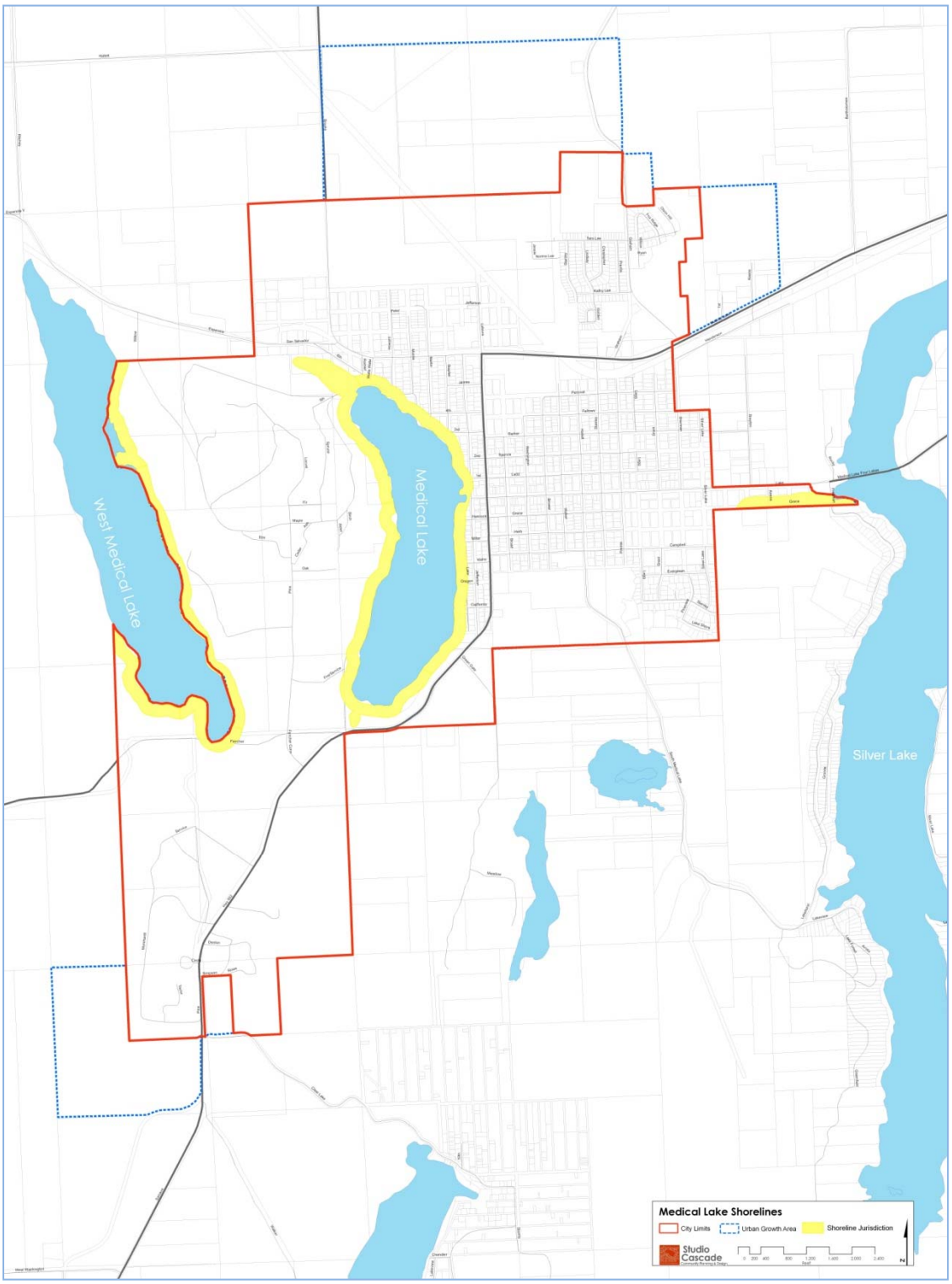
A. Purpose and Intent

The purpose of the City of Medical Lake's SMP is to explore and discuss the ecological systems in and around the City of Medical Lake's shorelines, and, present a regulatory framework that will guide City Council decisions regarding the city's shorelines in a manner consistent with the Department of Ecology's guidelines. The city's jurisdictional boundaries, when it comes to managing growth and the pressure associated with growth, are the shorelines of Medical Lake, specific shorelines of West Medical Lake and a portion of the westerly shoreline of Silver Lake. See figure 1-1, Jurisdictional shorelines of Medical Lake. This plan will be prepared by the City of Medical Lake and will be known as the "City of Medical Lake 2014 Shoreline Master Program (SMP). Medical Lake's SMP was developed to be consistent with Spokane County's Shoreline Management Plan since specific shorelines of West Medical Lake and Silver Lake are also within the jurisdiction of Spokane County.

This plan will be the first SMP prepared exclusively by the City of Medical Lake. The city has been using the SMP prepared by Spokane County adopted in 1975. Recent growth in the community and the increased interest in managing its own planning and development issues have motivated the city to prepare its own SMP. During its development the city considered Spokane County's own SMP, which was being developed concurrently and regulates the west side of West Medical and most of Silver Lake. Medical Lake's SMP addresses all of Medical Lake and the specific shorelines of West Medical Lake and Silver Lake that are inside the city's boundaries (See Figure 1.1.)

No portions of the City of Medical Lake's current Urban Growth Area (UGA) boundaries touch shorelines of the state. Therefore, the City is not pre-designating any further shoreline areas within its UGA as allowed by WAC 173-26-150. Should the City further enlarge its UGA, or annex areas in the future that would expand its shoreline jurisdiction, a Shoreline Master Program amendment will be necessary following the procedures found in WAC 173-26. Enlarging of the City's UGA or annexation requiring a Shoreline Master Program amendment should be considered during the planning process by the City

Figure 1-1: Shoreline Jurisdiction Boundaries



B. Authority

The State of Washington adopted the Shoreline Management Act (SMA) in 1971 to ensure that the development of land along the state's major streams, rivers, lakes and ocean shores occur in a manner consistent with the maintenance and enhancement of the shoreline's ecological value. The SMA requires the local government of Medical Lake to initiate planning and administer their regulatory program, while the state to act in a supportive and review capacity, while maintaining a compilation of all shoreline master programs making up the state's comprehensive shoreline master program, containing goals, policies and development regulations for all shorelines of the state.

As provided by the definitions found in the SMA of 1971, (RCW 90.58.030), Medical Lake, West Medical Lake and a small portion of Silver Lake are all considered to be "shorelines of the state." (Shorelines of the State are defined as the total of all shorelines and shorelines of state significance within the state). With that designation, the city was required to develop and implement a Shoreline Master Program.

C. Shoreline Systems

The City of Medical Lake is located in western Spokane County, on the southern edge of the "West Plains" and in a unique and delicate environment that transitions between rocky forest and arid scablands. This area includes three major lakes – Medical Lake, West Medical Lake and Silver Lake. The watershed surrounding the internally drained or "closed basin" lakes is little larger than the actual lakes. Basalt is prevalent, lying just below the surface creating dramatic forms as it breaks through the topsoil in some places and creates shallow basins in others. The dynamic appearance of this basalt, and the variety of ecosystems it creates, makes the community one of the most ecologically diverse places in Spokane County. Development is a challenge with wetland and soil conditions often presenting significant obstacles for those who wish to subdivide land and improve it for urban purposes.

D. Land Use - Water Quality – Water Quantity

1. *Medical Lake* is bound by the City of Medical Lake on its northern and eastern shore. Residences are the most common land use along this portion of the shoreline. The south and west shores are largely undeveloped other than a walking/biking trail that circles the lake. Eastern State Hospital sits atop a hill separating West Medical Lake from Medical Lake. Medical Lake is a popular lake for fishing and swimming and is also extensively used by waterfowl. The lake has over 3.1 miles of shoreline, with an area of 160 acres and an average depth of 32 feet. No visible surface inlets or outlets are shown on the Medical Lake, WA 7.5' quadrangle. Measurements since 1924 suggest that the lake is naturally eutrophic. High fecal coliform bacteria concentrations at the city park on the north end of the lake are likely linked to the large Canadian Geese population in the area. Alum was used to treat the high nutrient loads in 1977 and an aerator was installed to increase the oxygen content in the hypolimnion (Smith et al, 1998).

2. *Silver Lake* is bordered by residences on the northwest and northeast sides. The north and south ends are largely undeveloped. The lake has over 8.7 miles of shoreline, with an area of 486 acres and an average depth of 30 feet. The lake is a popular fishery and stocked with several varieties of trout and various spiny ray species of fish. Silver Lake is considered an excellent bass habitat and prize tiger muskees have been taken in recent years. No surface inlets or outlets are shown on the Medical Lake, WA 7.5' quadrangle. Silver Lake is a mesotropic lake with higher than normal phosphorus loads. The lake has several resorts and public access on the north shore, though only 5% of the residential development is sewered, with septic system failures and a storm sewer system from the City of Medical Lake likely adding pollutants to the lake.

3. *West Medical Lake* has little human development along its 4 miles of shoreline and encompasses 220 acres with an average depth of 22 feet. A picnic area and undeveloped area lie along the eastern shore while a pump house sits on the north end. Wheat fields lie near the western shore and a boat launch/fishing dock/boat rental occupies the southern shore. West Medical Lake is a popular fishing lake and the zooplankton population appears to be healthy and supportive of a good sport fishery. The lake is stocked annually with rainbow trout and was treated in 2000 to remove expanding goldfish and pumpkinseed populations. One intermittent stream drains into the lake from the uplands south of Fancher Butte; otherwise, no other streams enter or exit on the Medical Lake, WA 7.5' quadrangle. Most of the inflow to the lake comes from the wastewater treatment plant (Williams and Pelletier, 1992). In wet years the lake overflows into Clear Lake. West Medical Lake receives treated wastewater from a wastewater treatment plant thus it is very high in nutrients but the water is surprisingly clear. Previous researchers have identified high fecal coliform bacteria and high phosphorus loads and the lake is considered to be hyper-eutrophic (Williams and Pelletier, 1992).

Due to the lack of surface inflows and outflows, none of the three lakes support anadromous fish. Residential development activities along Medical Lake and Silver Lake may affect the quality of freshwater habitat through removal of upland and wetland vegetation causing an increase in silt, organic debris and other stormwater and septic system contaminants that enter the natural drainage system. The greatest risk to the habitat is the conversion of shoreline to residential uses, including the removal of riparian vegetation. In addition, stabilization methods such as shore protection structures often associated with residential development disconnect the critical ecological linkages between the water and land environments. Due to the geological history and resulting lack of defined drainages, the region surrounding the lakes is made up of many small lakes and ponds as well as wetlands. Many of these lakes and wetlands are classified as priority wetland habitats, especially for waterfowl concentrations immediately south of the city.

Chapter 2 Shoreline Environments

Natural Environment

Purpose
Characteristics
Management Policies

Urban Conservancy Environment

Purpose
Characteristics
Management Policies

Shoreline Residential Environment

Purpose
Characteristics
Management Policies

Criteria Applicable to all Environments

To plan and effectively manage shoreline resources, a system using categorized shoreline areas has been developed. The system is designed to provide a uniform basis for applying policies and use-regulations within distinctively different shoreline designations. WAC 173-26-211 sets forth six shoreline designations communities requiring a SMP should adopt and assign to shorelines within their jurisdiction, these shoreline classifications are as follows: "high intensity", "shoreline residential", "urban conservancy", "rural conservancy", "natural" and "aquatic." Existing development patterns, ecological functions, limitations of the shoreline area and public opinion all contributed in the development of the city's classification of its shorelines. The City of Medical Lake has adopted three of the six classifications to be assigned to shorelines within its jurisdiction: natural, shoreline residential and urban conservancy. These shoreline designations are intended to serve as "broad management areas" and are not intended to be administered as zoning districts. For each shoreline classification a set of management policies has been developed to insure that the uses associated with the assign classification does not degrade the ecological function of the shoreline or destroy the character of the area. The guidance provided in these management policies will insure that any future activities within the shoreline reaches will not result in any loss of ecological functions. The purpose, characteristics and management policies for the shoreline environments in the city are as follows:

I. Natural Environment

A. Purpose

The purpose of the "natural" environment is to protect those shoreline areas that are relatively free of human influence or that include intact or minimally degraded shoreline functions intolerant of human use. These systems require that only very low intensity uses be allowed in order to maintain the ecological functions and ecosystem-wide processes. A natural environment designation is assigned to shoreline areas if any of the following characteristics apply.

B. Characteristics

1. The shoreline is ecologically intact and therefore currently performing an important, irreplaceable function or ecosystem-wide process that would be damaged by human activity. Ecologically intact shorelines, as used here, means those shoreline areas that retain the majority of their natural shoreline functions, as evidenced by the shoreline configuration and the presence of native vegetation.
2. The shoreline is considered to represent ecosystems and geological types that are of particular scientific and educational interest.
3. The shoreline is unable to support new development or uses without significant adverse impacts to ecological functions or risk to human safety.
4. The shoreline is not being used for significant existing agricultural uses unless the agricultural operations involve very low intensity uses where there is no significant impact on natural ecological functions.

C. Natural Shoreline Management Policies

1. Any use that would substantially degrade the ecological functions or natural character of the shoreline area is prohibited.
2. The following new uses are prohibited in the natural environment:
   a. Commercial uses
   b. Industrial uses
   c. Non-water oriented recreation

d. Roads, utility corridors, and parking areas that can be located outside of natural designated shorelines.

3. Single-family residential development may be allowed as a conditional use within the natural environment if the density and intensity of such use is limited as necessary to protect ecological functions and be consistent with the purpose of the environment.
4. Commercial forestry is prohibited.
5. Agricultural uses of a low intensity are consistent with the natural environment when such use is subject to appropriate limitations or conditions to assure that the use does not expand or alter practices in a manner inconsistent with the purpose of the designation.
6. Scientific, historical, cultural, educational research uses and low intensity water-oriented recreational access uses are allowed as a conditional use provided that no significant ecological impact on the area will result.
7. New development or significant vegetation removal that reduces the capability of vegetation to perform normal ecological functions is prohibited. New development should be in a configuration that must be able to support its intended development without significant ecological impacts to the shoreline ecological functions.

II. Urban Conservancy Environment

A. Purpose

The purpose of the "urban conservancy" environment is to protect and restore ecological functions of open space, flood plain and other sensitive lands where they exist in urban and developed settings, while allowing a variety of compatible uses.

B. Characteristics

1. The shoreline is suitable for water-related or water-enjoyment uses.
2. The shoreline is an open space, a flood plain or is considered as sensitive areas that should not be more intensively developed.
3. The shoreline has potential for ecological restoration.
4. The shoreline retains important ecological functions, even though partially developed.
5. The shoreline has the potential for development that is compatible with ecological restoration.

C. Urban Conservancy Management Policies

1. Uses that preserve the natural character of the area or promote preservation of open space, flood plains or environmentally sensitive lands, either directly or over the long term.
2. Public access and public recreation activities are encouraged if adverse ecological impacts to functions can be mitigated. Shoreline uses and modifications should be designed and managed to prevent degradation of water quality and alteration of natural hydrographic conditions.
3. Water-oriented uses should be given priority over non-water-oriented uses.
4. Allow new over-water structures only for water-dependent uses, public access, or ecological restoration.
5. The size of new over-water structures should be limited to the minimum necessary to support the structure's intended use.
6. All developments and uses on navigable waters, or their reaches, should be located and designed to minimize interference with surface navigation and public access, consider impacts to public views, and allow for the safe, unobstructed passage of fish and wildlife, particularly those species dependent on migration.
7. Shoreline areas within this designation that have "high quality" features as identified in the 2005 City of Medical Lake Shoreline Inventory and Characterization Study (Appendix A) should be provided additional protection.
8. Uses that will contribute to the preservation or enjoyment of high quality areas by the public are encouraged.
9. No clearing, construction or other operations that would alter the existing character of mapped high quality areas should be allowed.

III. Shoreline Residential Environment

A. Purpose

The purpose of the Shoreline Residential Environment is to accommodate residential development, provide appropriate public access and recreational uses.

B. Characteristics

Shoreline Residential is a designation for shorelines inside urban growth areas, incorporated municipalities and rural areas of more intense development.

C. Shoreline Residential Management Policies

1. Standards for density, setbacks, lot coverage, minimum frontage width, conservation measures, buffers, shoreline stabilization, vegetation conservation, critical area protection, and water quality shall be set to assure no net loss of shoreline ecological functions, taking into account the environmental limitations and sensitivity of the shoreline area, the level of infrastructure and services available, and other planning and engineering considerations.
2. Access, utilities and public services should be available and adequate to serve existing needs.

3. Temporary commercial activities, in conjunction with special events and festivals, will be limited to the day light hours of the event or festival and will only be permitted with written permission of the city.
4. Allow new over-water structures only for water-dependent uses, public access or ecological restoration.
5. The size of new over-water structures should be limited to the minimum necessary to support the structure's intended use.
6. Existing public access should be maintained consistent with the Property Right Element of the plan.
7. Uses that will contribute to the preservation and enjoyment of high quality areas by the public are encouraged.

IV. Criteria Applicable to all Environments.

A. The following criteria will be given consideration when determining shoreline designations:

1. The Comprehensive Plan land use designation underlying and adjacent to the shoreline.
2. Existing land use patterns
3. Biological and physical character of the shoreline
4. Criteria set forth in WAC 173-26-211

Chapter 3 Goals and Policies for Shoreline Environments

Shoreline Use	History, Culture and Science
Economic Development	Flooding
Public Access	Shoreline Restoration & Protection
Recreation	Residential
Circulation	Education
Conservation	Private Property Rights

The goals and policies of the shoreline elements ensure that reasonable and adequate public use is allowed within the shoreline designations, along with natural resource protection. Specific public use elements include: economic development, public access, circulation systems, recreation, and shoreline use while protecting private property rights. Specific resource protection elements include: shoreline restoration and protection, historical and cultural, conservation and special flood hazards. Each of these elements ensures that shoreline ecological functions and values are protected, preserved or restored where ecological functions have been degraded. Furthermore the education element encourages appropriate public agencies, owner associations, businesses, property owners and other shoreland user groups to understand and promote good stewardship of the shorelands.

I. Shoreline Use

Goals	Policies
A. Establish and implement policies and standards for land use consistent with SMA along the shorelines of the city.	**A.1.** Ensure proposed shoreline uses are developed, distributed and located in a manner that will maintain and improve the health, safety and welfare of the public when such uses occupy shoreline areas.
	A.2. Ensure proposed shoreline uses do not infringe upon the rights of others, rights of private ownership or cause user conflicts.
	A.3. When utility lines require a shoreline location, they should be placed underground.
	A.4. Land adjacent to the shorelines should be developed in a manner consistent with the shoreline master program.
	A.5. Encourage compatible adjacent land uses in shoreline areas.
B. Assure that shoreline uses are either water-dependent or water-related and are compatible with adjacent uses.	**B.1.** Shoreline uses should consider the environmental impact of their location and design.
	B.2. Adverse changes to the natural character of the shoreline and interference with the public's use of publicly owned water bodies and shoreline areas should be minimized or prevented.

II. Economic Development

A. Limit economic development in shoreline areas to those activities that are temporary and in conjunction with special events and festivals and sanctioned by the city.	**A.1.** The location of economic development activities should be appropriate in relation to other land uses and the ecological functions of the shorelines.

III. Public Access

A. Provide reasonable and adequate public access, both physical and visual, to the publicly owned shorelines while providing for the protection of the natural environment and private property rights.	**A.1.** Physical and visual access is an important public value and should be preserved and increased.
	A.2. Access, design and spacing of access points, roads and motorized vehicles should be kept as far from shorelines as feasible.
	A.3. Where access to water's edge by motor vehicle is necessary, parking areas should be kept as far from the shorelines as feasible.
	A.4. Except for carefully designed access points, roads and motor vehicles should be kept as far from shorelines as feasible.
	A.5. Retain existing public access to shorelines and continue to obtain recreational access easements, for non-motorized, (i.e. pedestrian & bicycle) use including handicapped access, where appropriate and reasonable, along city shorelines.
	A.6. Ensure public access is provided in a manner sensitive to the unique characteristics of the shoreline and preserves the natural character, vegetation, quality of environment and any adjacent wetlands.

IV. Recreation

A. Preserve, increase and diversify recreational opportunities on the shorelines of the city.	**A.1.** Encourage appropriate public agencies to preserve shorelines for public use and to dedicate or transfer appropriate shoreline land for recreational uses.
	A.2. Both passive and active recreation should be encouraged for appropriate shorelines.
	A.3. Public and private recreational uses should be consistent with maintaining the ecological functions of the shoreline resources to support such uses.
	A.4. Encourage recreational opportunities compatible with adjacent uses and enhance the value of tourism.

V. Circulation

A. Provide a safe and convenient circulation system that minimizes disruption to the shoreline environment. ****NOTE:** 5th street leading up to Eastern State Hospital is a major cause of concern because of the impacts associated with oil based pollution run-off. A long-range goal of this plan is to seek vacation of 5th street at some point in the future.	**A.1.** All circulation elements should be designed to minimize conflict between modes of travel, particularly between recreation and through traffic, and between auto, bicycle and foot traffic.
	A.2. Motorized vehicle circulation systems should be located as far from the shoreline as physically feasible.
	A.3. Bike paths and foot paths should be encouraged while still protecting fragile shoreline elements.

VI. Conservation

A. Preserve natural shoreline resources including but not limited to scenic vistas, aesthetics and areas vital to fisheries and wildlife habitat.	**A.1.** Unique and fragile shoreline resources should be preserved because they cannot be replaced.
	A.2. Natural and semi-natural open spaces should be preserved and enhanced.
	A.3. Identify, conserve and enhance the unique and fragile qualities of shoreline resources and their associated wetlands.
	A.4.The most current, accurate and complete scientific and technical information available shall be used to identify, conserve and enhance the unique and fragile qualities of shoreline resources and their associated wetlands.
	A.5. Aesthetics, scenic vistas and irreplaceable resources should be preserved.
	A.6. Conservation of native vegetation within the Buffer area is necessary to protect the local soils as well as provide habitat and food for resident plant and animal species.
	A.7. Care should always be taken when developing within the Buffer area to not disturb the root systems of native plants, shrubs and trees.
	A.8. Development within the Buffer area may be allowed depending on the nature of the work.
	A.9. For every tree cut down within the Buffer area, it is preferred that the trunk shall remain on the ground to serve as nurse log habitat. Dead trees and stumps should be allowed to remain since they are desirable elements in the shoreland environment.
	A.10. Vegetation for existing linear corridors should be allowed under ongoing maintenance activities.

VII. History, Culture and Science

A. Identify, protect, preserve, acquire and restore shoreline resources that have cultural, historic, educational and/or scientific value.	**A.1.** All actions within shoreline areas should identify and preserve buildings, sites or areas that have cultural, historical, educational or scientific significance in accordance with all current applicable local, state and federal regulations.
	A.2. Suspected significant sites and newly discovered sites should be preserved until a value for retention is determined and alternatives are explored.
	A.3. Significant historical, educational and cultural sites may be considered for multiple uses.

VIII. Flooding

A. Identify special flood hazard areas, drainage ways and runoff areas that contribute to frequently flooded areas.	**A.1.** Standard hydrologic and hydraulic study methods shall be used to identify special flood hazard areas.
B. Protect and improve the natural dynamics of special flood hazard areas.	**B.1.** Maintain, protect or restore natural drainage systems to protect private property, water and environmental quality
	B.2. Integrate Eastern Washington Stormwater Manual (pub. # 04-10-076) best management practices, including low impact development (LID) techniques
	B.3. New developments and land use activities should be designed to: 1. Protect the drainage functions of natural drainage ways and other existing drainage facilities. 2. Consider the site's topography as it relates to frequently flooded areas in the design and placement of physical improvements such as roads and structures. 3. Retain natural vegetation buffers adjacent to the high water mark. 4. Retain trees and native vegetation that contribute to controlling erosion on slopes adjacent to special flooded areas. 5. Restore and enhance vegetative buffers adjacent to the land use action with native vegetation.
C. Manage special flood hazard areas to enhance environmental quality and to minimize the risks to life and property.	**C.1.** Minimize impacts from flooding problems such as erosion, property damage, potential property devaluation and impaired ground and surface water quality.

	C.2. Use Bioengineering techniques, where possible, rather than hard engineering structures to stabilize the floodway if risk to life or property is threatened.
	C.3. Guide development away from designated special flood hazard areas.
	C.4. Permit and encourage land uses compatible with the preservation of natural vegetation within special flood hazard areas.
	C.5. Development should not occur on lands identified as being within a special flood hazard area or as having a history of flooding, unless the developer provides mitigation measures acceptable to the appropriate regulatory agency.

IX. Shoreline Restoration and Protection

A. Rehabilitate those shorelines where ecological functions have been degraded.	**A.1.** Develop and implement a program to restore the ecological functions of degraded shorelines.
	A.2. Develop and implement a restoration program as a collective effort among public and private entities and interested citizens.
	A.3. Include at a minimum, the following in a restoration plan: 1. A shoreline rehabilitation strategy to include rehabilitation priorities and benchmarks, levels of restoration to be achieved, a post rehabilitation monitoring and maintenance program. 2. A citizen involvement program encouraging the participation of citizens willing to contribute to the rehabilitation of degraded shorelines. 3. A program promoting a collective partnership or private and public entities willing to contribute to the rehabilitation of shoreline resources.
B. Ensure that "No Net Loss" of ecological functions will result from the development and use of the shorelines.	**B.1.** Develop regulations and mitigation standards in the shoreline master program to ensure implementation of the no net loss policy.

	B.2. Emphasize prevention of degradation of the ecological functions of the shoreline and address, at a minimum, the following elements: 1. Preserve priority habitat 2. Use the full array of media options and academic venues to disseminate information regarding the proper care and the use of shoreline resources. 3. Encourages citizens, businesses and public agencies to work together in partnerships to protect the ecological functions of the shorelines. Such strategies may include, but not be limited to, shoreline acquisition, conservation easements, and transfer of development rights or similar strategies. 4. Identify the specific factors and mitigation measures, needed to achieve a no net loss of ecological functions prior to issuance of development permits.
	B.3. Monitor exempt and permitted development and uses to assure compliance with the goals, policies and use activity regulations of the SMP.

X. Residential

A. Residential growth and development should take place in appropriate areas being sensitive to and non-destructive to the shoreline environment of the city.	**A.1.** Residential development should be designed and located to preserve the natural landscape and shoreline ecology, and to minimize conflicts with present and future land uses.
	A.2. Residential development located along shorelines shall comply with this SMP and all applicable floodplain management ordinances and other city management ordinances when applicable.

XI. Education

A. Encourage appropriate public agencies, owner associations, businesses, property owners and other shoreland user groups to understand and promote good stewardship of the shorelines.	**A.1.** Direct the public to educational resources necessary to empower associations to promote good stewardship and construction.
	A.2. Provide resources to educate property owners, shoreline user groups and the development community regarding shoreline management regulations.

XII. Private Property Rights

A. Recognize and protect private property rights consistent with the public interest.	**A.1.** Encourage and support the preservation of owners' use and peaceful enjoyment of private property adjacent to or nearby publicly owned shorelines and public facilities.
	A.2. Implementation of elements within this program should respect private property rights consistent with constitutional and legal limitations on the regulation of private property.

Chapter 4 Shoreline Regulations

Definitions
Shoreline Enhancement (SE) Overlay District
Shoreline Development Review
Uses and Setbacks
Administrative Review – Shoreline Development
Critical Areas within Shoreline Jurisdictions

I. Definitions

- **Agriculture:** Agricultural activities" means agricultural uses and practices including, but not limited to: Producing, breeding, or increasing agricultural products; rotating and changing agricultural crops; allowing land used for agricultural activities to lie fallow in which it is plowed and tilled but left unseeded; allowing land used for agricultural activities to lie dormant as a result of adverse agricultural market conditions; allowing land used for agricultural activities to lie dormant because the land is enrolled in a local, state, or federal conservation program, or the land is subject to a conservation easement; conducting agricultural operations; maintaining, repairing, and replacing agricultural equipment; maintaining, repairing, and replacing agricultural facilities, provided that the replacement facility is no closer to the shoreline than the original facility; and maintaining agricultural lands under production or cultivation
- **Aquifer, Sole Source:** Sole source aquifer means an area designated by the U.S. Environmental Protection Agency under the Safe Drinking Water Act of 1974, Section 1424(e). The aquifer(s) must supply fifty percent (50%) or more of the drinking water for an area without a sufficient replacement available.
- **Average Grade Level:** Average grade level means the average of the natural or existing topography of the portion of the lot, parcel or tract of real property which will be directly under the proposed building or structure. Provided, in the case of structures to be built over water, average grade level shall be the elevation or ordinary high water mark. Calculation of the average grade level shall be made by averaging the elevations at the center of all exterior walls of the proposed building or structure.
- **Best Management Practices:** Best management practices means conservation practices or systems of practices and management measures that control soil loss and reduce water quality degradation caused by high concentrations of nutrients, animal waste, toxics and sediment; minimize adverse impacts to surface water and ground water flow, circulation patterns and to the chemical, physical and biological characteristics of wetlands; protect trees and vegetation designated to be retained during and following site construction and provide standards for proper use of chemical herbicides within critical areas.
- **Critical Area Recharge Area (CARA):** Areas with a critical recharging effect on aquifers used for potable water are areas where an aquifer that is a source of drinking water is vulnerable to contamination that would affect the portability of the water. WAC 365-190-030 (2)
- **Critical Habitat:** Critical habitat means habitat necessary for the survival or endangered, threatened, rare, sensitive or monitored species.

- **Development:** Development means the construction or exterior alteration of structures; degrading; drilling; pumping; filling; removal of any sand, gravel or minerals; bulk heading; driving of piling; placing of obstructions; or any project of a permanent or temporary nature which interferes with the normal public use of the surface of the waters overlying lands subject to the Shoreline Management Act at any stage of water level.
- **Ecological functions or shoreline functions:** Ecological or Shoreline Function means the work performed or role played by the physical, chemical, and biological processes that contribute to the maintenance of the aquatic and terrestrial environments that constitute the shoreline's natural ecosystem. See WAC 173-26-200 (2) (c).
- **Ecosystem-wide processes:** Ecosystem-wide processes mean the suite of naturally occurring physical and geologic processes of erosion, transport, and deposition; and specific chemical processes that shape landforms within a specific shoreline ecosystem and determine both the types of habitat and the associated ecological functions.
- **Erosion Hazard Areas:** Erosion hazards area means at least those areas identified by the United States Department of Agriculture Soil Conservation Service as have a "severe" rill and inter-rill erosion hazard and may experience severe to very severe erosion (WAC 365-190-030(5)
- **Exempt Development:** Exempt developments are those set forth in WAC 173-27-040 and RCW 90.58.030 (3) (e), 90.58.140 (g), 90.58. 147, 90.58.355 and 90.58.515 which are not required to obtain a substantial development permit but must otherwise comply with applicable provisions of the act and the local master program.
- **Fair Market Value:** Fair market value means the open market bid price for conducting the work, using the equipment and facilities and purchase of goods, services and materials necessary to accomplish the development. This would normally equate to the cost of hiring a contractor to undertake the development from start to finish, including the cost of labor, materials, equipment and facility usage, transportation and contractor overhead and profit. The fair market value of the development shall include the fair market value of any donated, contributed or found labor, equipment or materials.
- **Feasible:** Feasible means, for the purpose of this chapter, that an action, such as a development project, mitigation, or preservation requirement, meets all of the following conditions:

    a. The action can be accomplished with technologies and methods that have been used in the past in similar circumstances, or studies or tests have demonstrated in similar circumstances that such approaches are currently available and likely to achieve the intended results;

    b. The action provides a reasonable likelihood of achieving its intended purpose; and

    c. The action does not physically preclude achieving the project's primary intended legal use.

    In cases where this Master program requires certain actions unless they are infeasible, the burden of proving infeasibility is on the applicant.

    In determining an action's infeasibility, the City may weigh the action's relative public costs and public benefits, considered in the short- and long-term time frames.

- **Fill:** Fill means the addition of soil, sand, rock, gravel, sediment, earth retaining structure or other material to an area water-ward of the Ordinary High Water Mark (OHWM), in wetlands or on shorelands in a manner which raises the elevation or creates dry land.
- **Flood Insurance Map**: Flood insurance map is the official map on which the Federal Insurance Administration has delineated the areas of special flood hazards and includes the risk premium zones applied to the community. (Also known as "flood insurance rate map" or "FIRM.")
- **Floodplain:** Floodplain is synonymous with the one hundred (100) year floodplain and means that land area susceptible to being inundated by stream derived waters with a one percent (1%) chance of being equal or exceeded in any given year. The limit of this area shall be based upon flood ordinance regulation maps.
- **Floodway:** Floodway means the area, as identified in a master program, that either: (i) Has been established in federal emergency management agency flood insurance rate maps or floodway maps; or (ii) Floodway means those portions of the area of a creek valley lying stream ward from the outer limits of a water course upon which flood waters are carried during periods of flooding that occur with reasonable regularity, although not necessarily annually, said floodway being identified, under normal conditions, by changes in surface soil conditions or changes in types or quality of vegetative ground cover condition. The floodway shall not include those lands that can reasonably be expected to be protected from flood waters by flood control devices maintained by or maintained under license from the federal government, the state or a political subdivision of the state.
- **Frequently Flooded Areas:** Frequently flooded areas are lands in the flood plain subject to a one percent (1%) or greater chance of flooding in any given year. Frequently flooded areas perform important hydrologic functions and may present a risk to persons and property as designated by WAC 365-190-080(3). Classifications of frequently flooded areas include, at a minimum, the 100-year flood plain designations of the Federal Emergency Management Agency and the National Flood Insurance Program.
- **Functions and Values:** Functions and values means the beneficial roles served by areas including, but not limited to, water quality protection and enhancement, fish and wildlife habitat, food chain support, flood storage, conveyance and attenuation, ground water recharge and discharge, erosion control, wave attenuation, protection from hazards, historical and archaeological and aesthetic value protection and recreation. These beneficial roles are not listed in order of priority.
- **Geologically Hazardous Areas:** Geologically hazardous areas are areas that because of their susceptibility to erosion, sliding, earthquake or other geological events are not suited to the siting of commercial, residential or industrial development consistent with public health or safety concerns.
- **Landfill:** Landfill means the addition of soil, sand, rock, gravel, sediment, earth retaining structure or other to an area water-ward of the OHWM, in wetlands or on shorelands in a manner that raises the elevation or creates dry land.
- **Mitigation:** An implementation action involving the avoidance, reduction or compensation for possible adverse impacts. In the following order of preference, this includes:
    a. Avoid the impacts altogether by not taking action;
    b. Reducing or eliminating impacts by preservation or maintenance;
    c. Minimizing impacts by limiting degree or magnitude;

d. Rectifying impacts by repairing, rehabilitating or restoring;

e. Compensating for impacts by in kind replacement; or

f. Monitoring impacts by a planned evaluation process.

- **Monitoring:** Monitoring means evaluating the impacts of development proposals on the biological, hydrological and geological elements of such systems and assessing the performance of required mitigation measures throughout the collection and analysis of data by various methods for the purpose of understanding and documenting changes in natural ecosystems and features, and includes gathering baseline data.
- **Native Vegetation:** Native vegetation means those plants that were original or indigenous to shorelines of Medical Lake, West Medical Lake and Silver Lake.
- **Non-Water Oriented Use:** Non-water oriented use means upland uses that have little or no relationship to the shorelines. All uses that do not meet the definition of water-dependent, water-related or water-enjoyment are classified as non-water oriented uses. Adding public access features to a non-water oriented use does not automatically change the inherent use to a water-enjoyment use. Examples may include, but are not limited to, professional offices, automotive sales or repair shops, mini-storage facilities, multi-family residential development, convenience stores and gas stations.
- **Official Shoreline Environment Maps:** Official shoreline environmental maps means all maps adopted as part of the development regulations delineating the geographic boundaries of all water bodies and shoreline environment designations of Medical lake coming under the jurisdiction of the Shoreline Management Act, the City of Medical lake Comprehensive Plan and this Title. NOTE: Maps are representative only, onsite determination of OHWM will be needed to determine site specific shoreline jurisdiction.
- **Ordinary High Water Mark:** Ordinary High Water Mark (OHWM) means that mark found by examining the creek bed and banks, and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation as that condition exists on June 1, 1971 as it may naturally change thereafter, or as it may change thereafter in accordance with shoreline permits issued by the City of Medical lake or the Washington State Department of Ecology (Ecology). Where the OHWM cannot be found on lakes or streams, it shall be the line of mean high water. For braided streams, the OHWM is found on the banks forming the outer limits of the depression within which the braiding occurs.
- **Priority Habitat and Species (PHS):** Priority habitat and species as classified by the Department of Fish and Wildlife Priority Habitats and Species Program, Priority species require protective measures for their perpetuation due to their population status, sensitivity to habitat alteration and/or recreational, commercial, or tribal importance including State Endangered, Threatened, Sensitive and Candidate species; animal aggregations considered vulnerable and those species of recreational, commercial or tribal importance that are vulnerable. Priority habitats are those habitats or elements with unique or significant value to a diverse assemblage of species. A priority habitat may consist of a unique vegetation type or dominant plant species considered to describe successional stage, or a species structural element. The PHS List is a catalog of habitats and species considered to be priorities for conservation and management.
- **Qualified Professional:** Qualified professional means a person with experience and training in the applicable critical area. A qualified professional must have obtained a B.S. or B.A. or

equivalent degree in biology, engineering, environmental studies, fisheries, geomorphology or related field and two years of related work experience.

a. A qualified professional for habitats or wetlands must have a degree in biology and professional experience related to the subject species.

b. A qualified professional for a geological hazard must be a professional engineer or geologist licensed in the State of Washington.

c. A qualified professional for critical aquifer recharge areas means a hydrogeologist, geologist or engineer or other scientist with experience in preparing hydrogeology assessments.

- **Riparian Areas:** Transitional between terrestrial and aquatic ecosystems and are distinguished by gradients in biophysical conditions, ecological processes, and biota. They are areas through which surface and subsurface hydrology connect waterbodies with their adjacent uplands. They include those portions of terrestrial ecosystems that significantly influence exchanges of energy and matter with aquatic ecosystems (i.e., a zone of influence). Riparian areas are adjacent to perennial, intermittent, and ephemeral streams, lakes, and estuarine–marine shorelines. (NRC 2002)"
- **Restoration:** Restoration means measures taken to restore an altered or damaged natural feature including:

  a. Active steps taken to restore damaged wetlands, streams, protective habitat or their buffers to the functioning condition that existed prior to an unauthorized alteration; and

  b. Actions performed to reestablish structural and functional characteristics of the critical area that have been lost by alteration, past management activities or catastrophic events

- **Re-vegetate:** Re-vegetate means to plant an area, which has undergone clearing, grading or other means of vegetative removal.
- **SMA:** SMA means Shoreline Management Act of 1971, RCW 90.58 as amended.
- **Shorelines:** Shorelines means all of the water areas designated by the City of Medical Lake and their associated wetlands, and as defined in RCW 90.58.030, together with the land underlying them.
- **Shoreline Jurisdiction:** means those lands extending landward for two hundred feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward two hundred feet from such floodways; and all wetlands and river deltas associated with the streams, lakes which are subject to the provisions of this SMP
- **Shorelines of the State:** means all of the water areas of the state, including reservoirs, and their associated shorelands, together with the lands underlying them.. They include Medical Lake, West Medical Lake and Silver Lake.
- **Shoreline Permit:** Shoreline permit means any form of permission required under this Title prior to undertaking activity on shorelines of the state, including substantial development permits (SDP), variances, conditional use permits and shoreline exemptions.

  a. Shoreline Conditional Use Permit (CUP) means a use, development or substantial development classified as a conditional use or is not classified within the applicable

development regulation occurring within a shoreline jurisdiction of the city. CUPs are to provide a system within this SMP which allows flexibility in the application of use regulations in a manner consistent with the policies of RCW 90.58.020. In authorizing a conditional use, special conditions may be attached to the permit by the City of Medical Lake or the department to prevent undesirable effects of the proposed use and/or to assure consistency of the project with the act and the local master program.

b. Shoreline Substantial Development Permit (SDP) means any development of which the total cost or fair market value exceeds $6,416 (or as updated per RCW 90.58.030(3)(e))

c. or any development which materially interferes with the normal public use of the water or shorelines of the state.

- **Shoreline Variance:** Shoreline Variance means an adjustment, made in the strict application of the Title, to a particular piece of property located in a shoreline of the city which because of particular physical characteristics would be deprived privileges commonly enjoyed by other properties in the same area. A shoreline variance shall not allow a use that is otherwise prohibited by the Shoreline Enhancement Overlay District. The purpose of a variance permit is strictly limited to granting relief from specific bulk, dimensional or performance standards set forth in the applicable master program where there are extraordinary circumstances relating to the physical character or configuration of property such that the strict implementation of the master program will impose unnecessary hardships on the applicant or thwart the policies set forth in RCW 90.58.020. Variances from the use regulations of this master program are prohibited.
- **Should:** "Should" means that the particular action is required unless there is a demonstrated, compelling reason, based on policy of the Shoreline Management Act and this Master Program, against taking the action.
- **Seismic Hazard Area:** Seismic hazard area means areas subject to severe risk of damage as a result of earthquake induced ground shaking, slope failure, settlement or soil liquefaction.
- **Subdivision:** Subdivision means the division of land into five (5) or more lots, tracts, parcels, sites or subdivision for the purpose of sale or lease excepting division not containing a dedication in which the smallest lot created exceeds five (5) acres.
- **Short Subdivision:** Short subdivision means the division of land into four (4) or fewer lots, tracts or parcels for the purpose of sale or lease excepting division not containing a dedication in which the smallest lot created exceeds five (5) acres.
- **Water-Dependent Use:** Water-dependent use means a use or portion of a use which cannot exist in a location that is not adjacent to the water and which is dependent on the water by reason on the intrinsic nature of its operation.
- **Water-Enjoyment Use:** Water-enjoyment use means a recreational or similar use facilitating public access to the shoreline as a primary character of the use, a use that provides a recreational use or aesthetic enjoyment of the shoreline for a substantial number of people as a general character of the use and which, through location, design and operation assures the public's ability to enjoy the physical and aesthetic qualities of the shoreline. In order to qualify as a water-enjoyment use the use must be open to the public and the shoreline-oriented space within the project must be devoted to the specific aspects of the use that foster shoreline enjoyment.

- **Water-Oriented Use:** Water-oriented use means any one or a combination of water-dependent, water-related or water-enjoyment uses.
- **Wetlands:** Wetlands means areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands do not include those artificially wetlands intentionally created from non-wetland sites, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds and landscape amenities or those wetlands created after July 1, 1990, that were unintentionally created as a result of construction of a road, street, or highway. However, wetlands may include those artificial wetlands intentionally created from non-wetland areas created to mitigate conversion of wetlands.

II. Shoreline Enhancement (SE) Overlay District

A. Purpose and Intent

The purpose of the Shoreline Enhancement (SE) Overlay District is to achieve no net loss of shoreline ecological function by implementing policies of the Medical Lake Shoreline Master Program, Comprehensive Plan, and Shoreline Management Act of 1971. The intent is to provide for the management tools for the city's shorelines allowing reasonable development, improving public access to shorelines and protecting and enhancing views from adjacent upland areas.

B. General Provisions

1. The Shoreline Enhancement Overlay District (SE) is the area of shoreline jurisdiction. Any development proposed on a parcel of land within the SE Overlay District shall be subject to project review as required in this section unless specifically exempt. Per RCW 90.58.030(2)(f)(ii), the City extends shoreline jurisdiction to include land necessary for buffers for critical areas, a defined in Chapter 30.70A RCW, that occur within shorelines of the state.
2. Based upon the goals and policies established in the City's Comprehensive Plan the following general regulations apply to all shoreline uses and activities in Medical Lake.
    a. Miscellaneous
        i. Any development or use activity which occurs within the SE Overly District, whether it requires a shoreline permit or not, must comply with the provisions of these development regulations and the Shoreline management Act (SMA).
        ii. The disposal of solid waste in all shoreline environments is prohibited except in temporary containers designed to collect litter.
        iii. Any development designed for human habitation is not permitted on or over water.
        iv. All shoreline developments and uses shall utilize effective measures to minimize any increases in surface water runoff and to control, treat and release runoff so receiving water quality and shoreline properties and features are not adversely affected.
        v. All shoreline development shall be located, designed, constructed and maintained to minimize interference with beneficial natural shoreline

processes, such as water circulation, sand and gravel movement, accretion and erosion.

vi. Land clearing, filling, grading and alteration of natural drainage features and landforms shall be limited to the minimum necessary for development. Surfaces cleared of vegetation and not to be developed must be replanted as soon as possible. Surface drainage systems or substantial earth modifications involving greater than two hundred fifty (250) cubic yards of material shall be designed under the advisement of the Department of Ecology to prevent maintenance problems or adverse impacts on shoreline features.

vii. All development shall be located, designed, constructed and managed to protect and/or not adversely affect those natural features which are valuable, fragile or unique to the community, including but not limited to the following:

1) Wetlands.

2) Natural resources, including but not limited to sand and gravel deposits.

3) Fish and wildlife habitats, migratory routes and spawning areas.

4) Natural or mad-made scenic vistas or features.

viii. All development shall be located, designed in accordance with all applicable local and FEMA flood control and management codes and regulations, the State Environmental Policy Act (SEPA) and other applicable local land use codes.

ix. Mining shall not occur in any shoreline jurisdiction.

x. New development shall retain, preserve and enhance native riparian vegetation.

3. Public Access

a. Development shall not block or interfere with the normal public use of, or public access to, publicly owned shorelines and water bodies.

b. Development shall be required to protect and enhance physical and visual access to the water and shorelines.

c. Developments, whether recreational, residential, commercial or industrial, located along public shorelines or unique shoreline areas may be required to provide view corridors, public access ways, recreational trail easements or other amenities upon a determination by the city that the action would enhance public enjoyment of the shoreline and not unduly conflict with the proposed use, adjacent uses or public safety nor adversely impact the shoreline environment.

d. Any required public access easements shall be of size and design appropriate to the site, size and general nature of the proposed development. Such easements shall be recorded on a property deed or face of a plat as a condition running in perpetuity with the land.

e. Signs which indicate the public's right of access shall be installed and maintained in conspicuous locations at required public access sites.

f. Public use may be limited to daylight hours.

g. As much as possible, public access sites shall have direct and easy access from a public road or right-of-way.

h. The dedication and improvement of public access shall be required in all developments for water-enjoyment, water-related, and nonwater-dependent uses and for the subdivision of land into more than four parcels considered in all shoreline developments, provided public access may not be required where it is demonstrated by the applicant and determined by the City in its findings that one or more of the following provisions apply.

   i) Unavoidable hazards to the public exist which cannot be prevented by any practical means.

   ii) The cost of providing the access, easement or alternative amenity, is unreasonable or disproportionate to the total cost of the proposed development.

   iii) Unacceptable environmental harm will result from the public access, which cannot be mitigated.

   iv) Significant undue and avoidable conflict between the proposed access and adjacent uses would occur and cannot be mitigated.

   v) In determining the unavoidable hazards, costs, environmental harm, infeasibility, undesirability, or incompatibility of public access in a given situation, the City shall consider alternative methods of providing public access, such as off-site improvements, viewing platforms, separation of uses through site planning and design and restricting hours of public access.

III. Shoreline Development Review

A. General

There is hereby established an administrative system designed to assign responsibilities for implementation of the Shoreline Enhancement (SE) Overlay District and shoreline permit review for Medical Lake to prescribe an orderly process by which to review proposals and permit applications, and to ensure all persons affected by the SE Overlay District are treated in a fair and equitable manner.

B. Permits Required

Any persons wishing to undertake development within shoreline jurisdiction shall apply to the Medical lake Planning Department for a substantial development permit, a shoreline conditional use permit, a shoreline variance permit or a statement of exemption. Based on the City's Comprehensive Plan and SE Overlay District, the Administrator shall determine which permit is required or if the proposal is exempt from the shoreline permit.

1. Substantial Development Permit – Any development of which the total cost or fair market value exceeds $6,416 (or as updated per RCW 90.58.030(3)(e)) or any development, which materially interferes with the normal public use of the water or shorelines of the state. No substantial development shall be undertaken on shorelines of the city without first obtaining a substantial development permit from the city. Applications for such permits shall be made on forms provided by the Administrator. An

application shall provide the information necessary to be considered complete as specified in the application process.

a. Development authorized by a shoreline substantial development permit shall not begin until thirty (30) days from the date the Administrator files the approval permit with the Department of Ecology

2. Shoreline Conditional Use Permit – A use, development, or substantial development, classified as a conditional use or is not classified within the applicable development regulation occurring within a shoreline jurisdiction of the city requires a permit. A Shoreline Conditional Use Permit allows flexibility in varying the application of the use regulations consistent with the Shoreline Master Program and the Shoreline Management Act. Shoreline Conditional Use Permits should also be granted in a circumstance where denial of the permit would result in a thwarting of the SMA policies. In authorizing a shoreline conditional use, special conditions may be attached to the permit by the city or Ecology to prevent undesirable effects of the proposed use. Uses that are specifically prohibited may not be authorized with approval of a Shoreline Conditional Use Permit. Applications for such permits shall be made on forms provided by the Administrator. An application shall provide the information necessary to be considered complete as specified in the application process.

   a. Uses classified as Shoreline Conditional Uses in the SE Overlay District may be authorized provided the applicant can demonstrate all of the following:

      i. Proposed use will be consistent with the shoreline policies of SMA and the City's Comprehensive Plan.

      ii. Proposed use will not interfere with the normal public use of public shorelines.

      iii. Proposed use of the site and design of the project will be compatible with other permitted uses within the area.

      iv. Proposed use will cause no unreasonably adverse effects to the shoreline environment in which it is to be located.

      v. Public interest will not suffer substantial detrimental effect.

   b. Unclassified uses. Other uses not classified in the SE Overlay District may be authorized as shoreline Conditional Uses provided the applicant can demonstrate, in addition to the criteria set forth above, extraordinary circumstances preclude reasonable use of property in a manner consistent with the use regulations and policies of Medical Lake's shoreline management practices. The total or cumulative impact of the shoreline conditional uses should also remain consistent with the SMP, the comprehensive plan and the policies of the SMA.

3. Shoreline Variance – Relief from specific bulk, dimensional or performance standards set forth in the SMP for a piece of property because of particular physical characteristics the strict application of these standards would impose unnecessary hardships on the applicant or conflict with the policies of this shoreline master program, the comprehensive plan, or the shoreline policies of SMA. Applications for such permits shall be made on forms provided by the City's Planning Department. An application shall provide the information necessary to be considered complete as specified in the application process.

a. Criteria for Granting Shoreline Variances. Shoreline Variances located landward of the OHWM except in associated wetland pursuant to WAC 173-22 may be authorized provided the applicant can demonstrate all of the following:

Strict requirements of the bulk, height, dimensional or performance standards set forth in the SE Overlay District preclude or significantly interfere with a reasonable use of the property not otherwise prohibited by the SE Overlay District.

i. Hardship described above as specifically related to the property, and is the result of unique conditions, such as irregular lot shape, size or natural features and the application of the SE Overlay District and not from deed restrictions or the applicant's own actions.

ii. Design of the project will be compatible with other permitted activities in the area and will not cause adverse effects to adjacent properties or the shoreline environment.

iii. Shoreline Variance authorized does not constitute a grant of special privilege not enjoyed by other properties in the area, and will be the minimum necessary to afford relief.

2. Public interest will suffer no substantial detrimental effect.

a.. Shoreline Variances for development located water-ward of the OHWM or within marshes, bogs or swamps as designated in WAC 173-22, may be authorized provided the applicant can demonstrate all the criteria stated above as well as the public right of navigation and use of the shoreline will not be adversely affected by granting the Shoreline Variance.

b. In the granting of all Shoreline variances consideration shall be given to the cumulative impact of additional requests for like actions in the area. For example, if Shoreline Variances were granted to other developments in the area where similar circumstances exist, the total of the Shoreline Variances should also remain consistent with the policies of this SMP, the comprehensive plan and shoreline policies of the SMA.

c. Construction pursuant to a Shoreline Variance being issued shall not begin nor can construction be authorized except as provided in the SE Overlay District and the provisions of RCW 90.58.020 shall also apply. In all instances extraordinary circumstances shall be shown and the public interest shall suffer no substantial detrimental effect.

C. Exceptions for Substantial Development Permit Requirements

1. An exception from the Substantial Development Permit requirements does not constitute an exemption from the policies and use regulations of the Shoreline Management Act, the provisions of this Master Program and other applicable city, state or federal permit requirements. The following shall not be considered substantial developments for the purpose of this Master Program:

a. Any development of which the total cost or fair market value, whichever is higher, does not exceed $6,416 (or as updated per RCW 90.58.030(3)(e)) if such development does not materially interfere with the normal public use of the water or shorelines of the state. For purposes of determining whether or not a permit is required, the total cost or fair market value shall be based on the value of development that is occurring on shorelines of the state. The total cost or fair market

value of the development shall include the fair market value of any donated, contributed or found labor, equipment or materials.

b. Normal maintenance or repair of existing structures or developments, including damage by accident, fire or elements. "Normal maintenance" includes those acts to prevent decline, lapse or cessation from a lawfully established condition. "Normal Repair" means to restore a development to a state comparable to its original condition within a reasonable period after decay or partial destruction except where repair causes substantial adverse effects to the shoreline resource or environment. Replacement of a structure or development may be authorized as repair where such replacement is the common method of repair for the type of structure or development and the replacement structure or development is comparable to the original structure or development including but not limited to its size, shape, configuration, location and external appearance and the replacement does not cause substantial adverse effects to shoreline resources or environments.

c. Construction of a normal protective bulkhead common to single-family residences. A "Normal Protective Bulkhead" is constructed at or near the OHWM to protect a single-family residence and appurtenant structures, not for the purpose of creating dry land. When a vertical or near vertical wall is being constructed or reconstructed, not more than one cubic yard of fill per one foot of wall may be used as backfill Where an existing bulkhead is being replaced, it shall be constructed no further waterward of the existing bulkhead than is necessary for construction of new footings. When a bulkhead has deteriorated such that an ordinary high water mark has been established by the presence and action of water landward of the bulkhead then the replacement bulkhead must be located at or near the actual ordinary high water mark. Beach nourishment and bioengineered erosion control projects may be considered a normal protective bulkhead when any structural elements are consistent with the above requirements and when the project has been approved by the department of fish and wildlife.

d. Emergency construction necessary to protect property from damage by the elements. An "Emergency" is an unanticipated and imminent threat to public health, safety or the environment, which requires immediate action within a time to short to allow full compliance with the ACT or this Master Program. Emergency construction does not include development of new permanent protective structures where none previously existed. Where new protective structures are deemed by the administrator to be the appropriate means to address the emergency situation, upon abatement of the emergency situation the new structure shall be removed or any permit which would have been required, absent an emergency, pursuant to chapter 90.58 RCW, these regulations, or the local master program, obtained. All emergency construction shall be consistent with the policies of chapter 90.58 RCW and the local master program. As a general matter, flooding or other seasonal events that could be anticipated and may occur but that are not imminent are not an emergency.

e. Construction and practices normal or necessary for farming, irrigation and ranching activities, including agricultural, service roads and utilities, and the construction and maintenance of irrigation structures including but not limited to head gates, pumping facilities and irrigation channels, provided that a feedlot of any size, all processing plants, other activities of a commercial nature, alteration of the contour of the area by leveling or filling other than that which results from normal cultivation, shall not be considered normal or necessary farming or ranching activities. A feedlot shall be an

enclosure or facility used or capable of being used for feeding livestock, hay, grain, silage or other livestock feed, but shall not include land for growing crops or vegetables for livestock feeding and /or grazing, nor shall it include normal livestock wintering operations.

f. Construction by an owner, lessee or contract purchaser of a single-family residence for his own use or for the use of his family, which residence does not exceed a height of thirty-five (35) feet above average grade level and meets all requirements of the state agency or local government having jurisdiction thereof.

g. Construction of a dock, including community dock, designed for pleasure craft only, for the private noncommercial use of the owner, lessee or contract purchaser of a single-family residence or multi-family residences. The fair market value of the dock does not exceed $10,000, but any subsequent construction having a fair market value exceeding $2,500 occurs within five years of completing of the prior construction, a substantial development permit is required.

h. Operation, maintenance or construction of canals, waterways, drains, reservoirs or other facilities that now exist or are hereafter created or developed as part of an irrigation system for the primary purpose of making use of system waters, including return flow and artificially stored ground water for the irrigation of lands.

i. The marking of property lines or corners on state owned lands, when such marking does not significantly interfere with the normal public use of the surface waters.

j. Operation and maintenance of any system of dikes, ditches, drains or other facilities existing on September 8, 1975, which were created, developed or utilized primarily as part of an agricultural drainage or diking system.

k. Any project with certification from the Governor pursuant to Chapter 80.50 RCW.

l. Watershed restoration projects as defined in WAC 173-27-040. Local government shall review the projects for consistency with the shoreline master program in an expeditious manner and shall issue its decision along with any conditions within forty-five (45) days of receiving all materials necessary to review the request for exemption from the applicant. No fee may be charged for accepting and processing requests for exemption for watershed restoration.

m. Site exploration and investigation activities that are prerequisite to preparation of an application for development authorized under this chapter, if

    i. The activity does not interfere with the normal public use of the surface waters.

    ii. The activity will have no significant adverse impact on the environment including but not limited to fish, wildlife, fish or wildlife habitat, water quality and aesthetic values.

    iii. The activity does not include the installation of any structure, and upon completion of the activity the vegetation and land configuration of the site are restored to conditions existing before the activity.

    iv. A private entity seeking development authorization under this section first post a performance bond or provides other evidence of financial responsibility to the local jurisdiction to ensure that the site is restored to preexisting conditions.

D. Statement of Exemption

1. Applicants for all non-shoreline permits or approvals within the shoreline jurisdiction must obtain a written "Statement of Exemption" from securing a Substantial Shoreline Development Permit. This process verifies the action is exempt and offers the applicant an itemization of shoreline policies and other requirements applicable to the proposed project. In the case of development subject to the policies and regulations of the SE Overlay District, the city's comprehensive plan and SMA, but exempt from the Shoreline Substantial Development Permit process. The city shall attach shoreline management terms and conditions to the building permits and other permits and approval pursuant to RCW 90.58.140.
2. Whenever a development falls within the exemption criteria and is subject of the U.S. Army Corps of Engineers Section 10 or Section 404 Permit, the Administrator shall prepare a Statement of Exemption, and transmit a copy to the applicant and the Washington State Department of Ecology. Exempt development shall not require a Shoreline Substantial Development Permit, but may require a Shoreline Conditional Use Permit, Shoreline Variance or a Statement of Exemption.
3. Before determining that a proposal is exempt, the Administrator may conduct a site inspection to ensure the proposal meets the exemption criteria. The exemption granted may be conditioned to ensure the activity is consistent with the SE Overlay District, the city's comprehensive plan and the SMA.
4. Exemption from Shoreline Substantial Development Permit requirements does not constitute exemption from the policies and use regulations of the SMA, the city's comprehensive plan, the SE Overlay District and other applicable city, state or federal permit requirements.

E. Information Prior to Submitting Applications

1. Prior to submitting an application for a Substantial Development Permit, a Conditional Use Permit and/or a Variance, applicants are encouraged to request a pre-application meeting. This will enable the applicant to become familiar with the requirements of this shoreline master program, other applicable regulations and the approval process. The pre-application process shall be conducted according to procedures established by the Administrator.

F. Shoreline Applications

1. Within twenty-eight (28) days of receiving an application for a Substantial Development Permit, a Conditional Use Permit or a Variance the Administrator or designee shall provide a written determination stating that the application is either complete or incomplete. If an application is incomplete then the determination shall include a statement indicating what is necessary to make the application complete. A determination shall not preclude the city from requesting additional information or studies.
2. An application is complete if it includes the following:
    a. A complete application form as provided by the city.
    b. A legal description and three (3) copies of any map(s) showing the entire parcel of land owned by the Applicant.
    c. Site Plan, drawn to scale and including the following:

i. Site boundary.

ii. Property dimensions in vicinity of project.

iii. North arrow and scale.

iv. Ordinary High Water Mark

v. Typical cross-section or sections showing:

vi. Existing ground elevation

vii. Proposed ground elevation

viii. Height of existing structures

ix. Height of proposed structures

x. Where appropriate, proposed land contours using five-foot (5') intervals in water areas and ten-foot (10') intervals on areas landward of the OHWM, if development involves grading, cutting, filling or other alteration of land contours.

xi. Dimensions and location of existing structures to be maintained

xii. Dimensions and locations of proposed structures, parking and landscaping.

xiii. Source, composition and volume of any fill material

xiv. Composition and volume of any extracted materials, and identify proposed disposal area.

xv. Location of proposed utilities, such as sewer, water, gas and electricity.

d. Vicinity Map

i. Indicate site location using natural points of reference, i.e. roads, state highways, prominent landmarks, etc.

ii. If the development involves the removal of any soils by dredging or otherwise, identify the proposed disposal site on the map. If disposal site is beyond the confines of the vicinity map, provide another vicinity map showing the precise location of the disposal site and its distance to the nearest city.

e. Narrative Description. Give brief narrative description of the general nature of the improvements and land use within one thousand feet (1,000') in all directions from the development site

f. Adjacent landowners. After a determination of completeness, the name and addresses of all real property owners certified by a title company with three hundred feet (300') of the property where the development is proposed.

g. If the proposal site includes critical areas as defined in Chapter 7 of this shoreline master program then the following additional application requirements shall apply:

i. The dimensions and the exact boundary of the critical area on the project site.

ii. Identification of specific means to mitigate any potential adverse environmental impacts of the proposal.

iii. Top view and typical cross-section views of the critical area (and buffer, if applicable) to scale.

iv. Any additional information required by the particular subsection for the type of Critical Area which may be encountered.

h. Identification of specific means to mitigate any potential adverse environmental impacts of the proposal.

3. The city may require additional information deemed necessary to verify compliance with the provisions of this shoreline master program.

G. Fees.

1. At the time of an application request, the Applicant shall pay a filing fee as determined by the City Council, by resolution. Sufficient fees shall be charged to the Applicant to cover the costs of evaluation of the application.

H. Public Notice

1. Notice of Application – Within fourteen (14) days after a completeness determination, a Notice of Application shall be published in a newspaper of general circulation within the area in which the development is proposed. The Notice of Application shall include the following:

   a. Description of the location of the project and a statement that any person desiring to present their views to the city may do so in writing within thirty (30) days of the Notice of Application.

   b. If applicable, the notice shall include the date of the public hearing and state that any person may submit oral or written comments at the hearing. All persons who indicate their desire to receive a copy of the final order shall be notified in a timely manner.

   c. The Notice of Application must be published in the appropriate newspaper at least once a week, on the same day of the week for two consecutive weeks.

   d. The Administrator shall also post the Notice of Application on site.

   e. The Administrator may require other methods of public notice to accomplish the objectives of reasonable notice to the adjacent landowners and the public.

2. Notice of Public Hearing – Prior to a public hearing, if the hearing date was not include in the Notice of Application, the Administrator shall prepare a Notice of Public Hearing stating the nature, time and location of the public hearing. The public hearing should be held at the earliest possible date after the 30 day public comment period for the Notice of Application has ended. The Notice of Public Hearing shall include the following:

   a. Description of the location of the project and a statement that any person desiring to present their views to the city may submit oral or written testimony at the hearing.

   b. Date, location and time of the public hearing.

   c. A written notice of the public hearing at which the Planning Commission will consider the application shall be mailed or delivered to the applicant a minimum of seven (7) days prior to the hearing.

   d. The Administrator shall also post the Notice of Public Hearing on-site.

3. Notice of Decision – After a decision is made by the reviewing authority the Administrator shall prepare a Notice of Decision that contains the following:

   a. The date of the application and the date of determination of completeness of application.

b. A description of the project or requested action and the location of the property.

c. Statement of any SEPA threshold determination.

d. A statement of action taken by the review authority.

e. A statement that the action is final unless an appeal is submitted within the appeal period set by this title.

f. A statement describing the procedure for an appeal.

g. The notice decision shall be distributed as follows:

i. Publication of the notice in the official city newspaper of general circulation.

ii. Mailing of the notice to the applicant or applicant's representative and to any person who, prior to the rendering of the decision, requested notice of the decision or submitted comments on the application.

iii. The Department of Ecology

iv. The Attorney General

I. Public Hearing Required

1. The Planning Commission shall hold a public hearing on a application for a Shoreline Conditional Use or Shoreline Variance.
2. The Administrator shall prepare a staff report on the proposed development or action summarizing the comments and recommendations of city departments, affected agencies and special zones, and evaluating the department's consistency with the requirements of the Shoreline Master Program, the city comprehensive plan and other applicable city regulations. The staff report shall include findings, conclusions and proposed recommendations for the disposition of the development application.
3. At the time and in the place appointed, the Planning Commission shall conduct a public hearing for the purpose of taking testimony, hearing evidence, considering the facts pertinent to the proposal and evaluating the proposal for consistency with the requirements of this Title and other applicable plans and regulations.
4. The Planning Commission may grant approval, approval with conditions or may deny the project based on the testimony received and the findings made. No permit shall be granted unless the proposed development is consistent with the provisions of this Master Program, the SMA and the SE Overlay District. The burden of proving that the proposed development is consistent with the Shoreline Master Program, SMA and SE Overlay District shall be on the applicant.
5. Planning Commission Decision – Within five (5) days of the decision, the Administrator shall send the Commissioner's final order including findings and conclusions to the following:

   a. The applicant

   b. The Department of Ecology

   c. The Attorney General

6. After city approval of a Shoreline Conditional Use Permit or Shoreline Variance, the Administrator shall submit the permit to Ecology for its approval, approval with conditions or denial. Upon receipt of Ecology's decision, the Administrator shall notify those interested persons having requested the outcome of such decision.

J. Time Limit on Approval

1. Duration of Permits – The City of Medical lake may issue shoreline permits with termination dates of up to five (5) years. If a permit does not specify a termination date, the following requirements apply consistent with WAC 173-14-060.
    a. Time Limit for Substantial Progress – Construction or substantial progress toward completion must begin one (1) year after approval of the shoreline permit.
    b. Extension for Substantial Progress – The City of Medical Lake may, at discretion with prior notice to parties of record and Ecology, extend the 1 year time period for the substantial progress for a reasonable time up to 1year based on factors, including the inability to expeditiously obtain other government permits which are required prior to the commencement of construction.
2. Five (5) Year Permit Authorization – If the applicant has not completed construction
    a. within 5 years of approval, the city will review the shoreline permit and upon showing of good cause will either extend the permit for 1 year, or terminate the permit. Prior to the city authorizing any permit extensions, it shall notify any parties of record and Ecology.

K. Revision of Permits

1. When an applicant desires to revise a shoreline permit, the applicant must submit detailed plans and text describing the proposed changed. If the Administrator determines the revisions proposed are within the scope and intent of the original permit, consistent with WAC 173-14-064, the Administrator may approve the revision. "Within the scope and intent of the original permit" means all of the following:
    a. No additional over-water construction is involved, except pier or bridge construction may be increased by five hundred square feet (500 sq. ft.) or ten percent (10%) whichever is less.
    b. Ground area coverage and height is not increased more than 10%.
    c. Additional structures do not exceed a total of 250 sq. ft.
    d. The revision does not authorize development to exceed setback, lot coverage or any other requirement of the SE Overlay District.
    e. Additional landscaping is consistent with conditions, if any, attached to the original permit.
    f. The use authorized pursuant to the original permit is not changed.
    g. No substantial adverse environmental impact will be caused by the revision.
    h. If the sum of the proposed revision and any previously approved revisions do not meet the criteria above, an application for a new shoreline permit must be submitted. If the revision involves a Shoreline Conditional Use Permit or Shoreline Variance, conditioned by Ecology, the revision must also be reviewed and approved by Ecology whereby a city or Ecology decision on the revision to the permit must be appealed within 30 days of such decision, in accordance with RCW 90.58 and WAC 173-14-064.
    i. Construction allowed by the revised permit not authorized under the original permit is undertaken at the applicant's own risk until the expiration of the appeals decision.

L. Bonds

1. The city may require the applicant to post a bond in favor of the city to assume full compliance with any terms and conditions imposed on a substantial development, conditional use or variance permit. All bonds shall be in the amount to assure the city that any deferred improvement will be carried out within the time stipulated.

M. Nonconforming Development

1. Nonconforming development is a shoreline use or structure lawfully constructed or established prior to the effective date of this SMP, the SMA or amendments thereto, but does not conform to the present regulations, standards or policies. In such cases, the following standards shall apply:
   a. Nonconforming development may be continued provided it is not enlarged, intensified, increased or altered in any way thereby increasing its nonconformity.
   b. A nonconforming development is damaged to an extent not exceeding 75% replacement cost of the original structure, it may be reconstructed to those configurations existing immediately prior to the time the structure was damaged, so long as restoration is completed within one year of the date of damage, with the exception being single-family nonconforming development may be 100% replaced if restoration is completed within three years of the date of damage.
   c. A nonconforming development, which is moved any distance, must be brought into conformance with the SMA and the SE Overlay District.
   d. If a nonconforming use is discontinued for twelve consecutive months or for twelve months during any two-year period, any subsequent use shall be conforming. It shall not be necessary to show that the owner of the property intends to abandon the nonconforming use in order for the nonconforming rights to expire
   e. A nonconforming use shall not be hanged to another nonconforming use regardless of the conforming or nonconforming status of the building or structure in which it is housed.
   f. An undeveloped lot, tract, parcel, site or division which was established prior to the effective date of the SMA and the SE Overlay District but does not conform to the present lot size or density standards may be developed so long as such development conforms to all other requirements of the SMA and the SE Overlay District.

N. Duties and Responsibilities

1. Administrator or their designee is vested with the following:
   a. Overall administrative responsibility for the SE Overlay District
   b. Authority to approve, approve with conditions or deny Shoreline Substantial Development Permits and shoreline permit revisions in accordance with policies and provisions of the Shoreline Master Program, the city's comprehensive plan and the SMA.
   c. Authority to grant Statements of Exception for the Shoreline Substantial Development Permits.
   d. Authority to determine compliance with the State Environmental Policy Act (SEPA).

2. The duties and responsibilities of the Administrator shall include the following:
    a. Establish the procedures and preparing forms deemed essential for the administration of the city's shoreline policies and development regulations.
    b. Advise interested citizens and applicants of the purposes, goals, policies, regulations and procedures of SMA, the city's comprehensive plan and the SE Overlay District and any changes or amendments thereto.
    c. Make administrative decisions and interpretations of the policies and regulations of the SMA, the city's comprehensive plan and the SE Overlay District.
    d. Collect applicable fees.
    e. Determine if all necessary information and materials are provided with shoreline permit applications.
    f. Make field inspections as necessary.
    g. Review all provided and related information deemed necessary for appropriate application needs.
    h. Determine if a Shoreline Substantial Development Permit, Shoreline Conditional Use Permit or Shoreline Variance is required and provide the appropriate application forms.
    i. Review and analyze Shoreline Substantial Development permit applications, make written findings and conclusions and approving, approving with conditions or denying such permits.
    j. Submit Shoreline Conditional Use Permit and Shoreline Variance Applications and make written recommendations and findings on such permits to the Planning Commission for their consideration and official action.
    k. Assure proper notice is given to appropriate persons and the public for all hearings.
    l. Provide technical and administrative assistance to the Planning Commission as required for effective and equitable implementation of the shoreline master program, the comprehensive plan and the SMA.
    m. Investigate, develop and propose amendments to the city's comprehensive plan and the SE Overlay District as deemed necessary to more effectively and equitably achieve the city's shoreline management goals and policies and those of SMA.
    n. Seek remedies for alleged violations of the provisions of the SMA, the SE Overlay District or of conditions of any approved shoreline permit issued by the City of Medical Lake.
    o. Coordinate information with affected agencies.
3. The Medical Lake Planning Commission, hereafter known as the Commission, is vested with authority to perform the following:
    a. Approve, approve with conditions or deny Shoreline Conditional Use Permits or Shoreline Variances after considering the recommendations of the Administrator. Any decision on this matter made by the Commission may be appealed as set forth in the Section of Local Appeals.
    b. The duties and responsibilities of the Commission shall include the following:
        i. Consideration of Shoreline Conditional Use and Shoreline Variance

ii. Applications on regular meeting days or public hearings.

iii. Review the findings and conclusions for permit applications submitted by the Administrator.

iv. Approve, approve with conditions or deny Shoreline Conditional Use Permits or Shoreline Variances.

v. Base all decisions on shoreline permits on the Shoreline Master Program goals and policies, criteria established in the SE Overlay District, the city's comprehensive plan and the SMA.

vi. If the situation warrants, the City Administrator may require any applicant granted a shoreline permit to post a bond or other acceptable security with the City and conditioned to assure the applicant and/or their successors in interest, shall adhere to the approved plans and all conditions attached to the shoreline permit. Such bonds or securities shall have a face value of at least one hundred fifty percent (150%) of the estimated development cost, including attached conditions; the City Attorney shall approve such bonds or securities as to forms.

4. The Medical Lake City Council, hereafter known as the "Council", is vested with authority to perform the following:

   a. Decide and review local appeals of the Administrator's or Commission's actions and interpretations on regular meeting days or public hearings.

   b. Review the findings and conclusions for shoreline permit applications submitted by the Administrator or Commission, and appeals of the Administrator's or Commission's actions and interpretations.

   c. Approve any revisions or amendments to the city's comprehensive plan and the SE Overlay District in accordance with the requirements of the SMA.

   d. Base all decisions on shoreline permits or appeals on the criteria established in the SE Overlay District, the city's comprehensive plan and SMA.

   e. Review and act upon any recommendations of the Administrator for amendments or revisions to the shoreline policies of the city's comprehensive plan and the regulations of the SE Overlay District. The Council shall enter findings and conclusions setting forth factors it considered in reaching its decision. To become effective, any amendments to the comprehensive plan or SE Overlay District must be reviewed and approved by Ecology, pursuant to RCW 90.58.190 and WAC 173.19.

O. Shoreline Program Review and Amendments

1. The SE Overlay District, along with the shoreline policies of the city's comprehensive plan, shall be reviewed annually and adjustments made as necessary to reflect changing local circumstances, new information or improved data, and changes in State statutes and regulations. This review process shall be consistent with WAC 173-19 requirements and shall include a local citizens involvement effort and public hearing to obtain the views and comments of the public.

2. Amendments. Any of the provisions of the SE Overlay District or shoreline policies of the city's comprehensive plan may be amended as provided for in state law.

Amendments or revisions to the SE Overlay District and/or the shoreline policies of the city's comprehensive plan do not become effective until approved by Ecology.

P. Severability

1. If any provisions of the SE Overlay District, or its application to any person or legal entity or parcel of land or circumstances is held invalid, the remainder of the SE Overlay District, or the application of the provisions to other persons or legal entities or parcels of land or circumstances, shall not be affected.

Q. County Tax Assessor

1. As provided for in RCW 90.58.290 the County Assessor, in establishing the fair market value of the property shall consider the restrictions imposed by this shoreline master plan.

R. Local Appeals

1. Any decision made by the Administrator or Commission regarding shoreline permits, shoreline policy or regulation interpretation, permit revisions or other action within the scope of their responsibility, may be appealed to the Council as set forth in the Medical Lake Municipal Code, Chapter 17.48.

S. Appeal to State Shorelines Hearing Board

1. Any person aggrieved by the granting, denying, rescinding or modification of a shoreline permit may seek review from the Shorelines Hearing Board by filing an original and one copy of request with the Hearings Board within thirty (30) days of receipt of the final decision by the city. Said request shall be in the form required by the rules for practice and procedure before the Hearings Board, the person seeking review shall file a copy of the request for review with Ecology and the Attorney General's Office. Hearing Board regulations are contained in WAC 461-08.

T. Enforcement and Penalties

1. The choice of enforcement action and the severity of any penalty should be based on the nature of the violation and the damage or risk to the public or to public resources.
    a. Civil Penalty
        i. The City Attorney shall bring such injunction, declaratory, or other actions as are necessary to insure no uses are made along shorelines in conflict with the provisions of the SMA and the SE Overlay District and to otherwise enforce the provisions of the SMA and the SE Overlay District.
        ii. Any person who fails to conform to the terms of a shoreline permit issued, undertakes a development or use along city shorelines without first obtaining any shoreline permit, or who fails to comply with a cease and desist order shall also be subject to a civil penalty not to exceed one thousand dollars ($1,000) for each violation. Each day of violation shall constitute a separate violation.
        iii. Aiding and Abetting. Any person who, through an act of commission or omission procedures, aids or abets in the violation shall be considered to have committed a violation for the purposes of civil penalty.
        iv. A notice in writing shall impose the penalty provided for in this section, either by certified mail with return receipt requested or by personal service, to the

person incurring the same from the City of Medical Lake. The notice shall include the content of order specified below.

v. Within 30 days after the notice is received, the person incurring the penalty may apply in writing to the City of Medical Lake for remission or mitigation of such penalty. Upon receipt of the application, the city may remit or mitigate the penalty only upon a demonstration of extraordinary circumstances, such as the presence of information or factors not considered in setting the original penalty. Any penalty imposed pursuant to this Section by the City of Medical Lake shall be subject to review by the Council.

vi. Penalties jointly imposed by the city and Ecology shall be appealed to the Shoreline Hearings Board. When the city and Ecology impose a penalty jointly, it may be remitted or mitigated only upon such terms as both the city and Ecology agree.

vii. Content of order shall set forth and contain the following:

1) Description of the specific nature, location, extent and time violation and the damage or potential damage.

2) Notice of the violation or the potential violation, a cease and desist order or,

3) In appropriate cases, the specific corrective action to be taken within a given time. A civil penalty under this section may be issued with the order and it shall specify a date certain or schedule by which payment will be complete.

viii. The cease and desist order issued under this subsection shall become effectively immediately upon receipt by the person to whom the order is directed.

ix. Failure to comply with the terms of a cease and desist order can result in enforcement actions including, but not limited to, the issuance of a civil penalty.

x. Permittees applying for a shoreline permit after commencement of a use or activity may, at the discretion of the city be required to pay a delinquent permit penalty not to exceed three (3) times the appropriate shoreline fee permit fee paid by the Permittee. A person who has caused, aided or abetted a violation within two (2) years after the issuance of the regulatory order, notice of violation or penalty by the city or Ecology against said person may be subject to a delinquent permit penalty not to exceed ten (10) times the appropriate shoreline permit fee paid by the Permittee. Delinquent permit penalties shall be paid in full prior to assuming the use or activity.

xi. Issuance of civil penalties is mandatory in the following instances:

1) Violator has ignored the issuance of an order or notice of violation.
2) Violation causes or contributes to significant environmental damage to shorelines as determined by the city.
3) Person causes, aids or abets in a violation within two (2) years after issuance of a similar regulatory order, notice of violation or penalty by the city or Ecology against said person.

xii. Minimum Penalty Levels

1) Regarding all violations that are mandatory penalties, the minimum penalty is two hundred fifty dollars ($250.00).

2) For all other penalties, the minimum penalty is one-hundred dollars ($100.00).

xiii. In addition to incurring civil liability, any person found to have willfully engaged in activities along shorelines in violation of the provisions of the SMA, the city's comprehensive plan and the SE Overlay District shall be guilty of a gross misdemeanor and shall be punished by a fine of not less than $100 nor more than $1,000, by imprisonment in the county jail for not more than ninety (90) days for each separate offense, or by both fine and imprisonment. The fine for the third and all subsequent violations in any five (5) year period shall be not less than $500 or more than $10,000.

xiv. Any person subject to the regulatory program of the SMA and the SE Overlay District who violates any provision thereof or shoreline permit issued pursuant thereto shall be liable for all damage to public or private property arising from such violation, including the cost of restoring the affected area to its condition prior to violation. The City Attorney shall bring suit for damages under this section on behalf of the city. Private persons shall have the right to bring suit for damages under this Section on their own behalf of all persons similarly situated. If liability has been established for the cost of restoring an area affected by the violation, the court shall make provisions to assure that restoration will be accomplished within reasonable time at the expense of the violator. In addition to such relief, including money damages, the court in its discretion may award attorney's fees and costs of the suit to the prevailing party.

xv. No building permit, septic tank permit or other development permit shall be issued for any parcel of land developed or divided in violation of the SE Overlay District. All purchasers or transferees of property shall comply with provisions of the SE Overlay District. Each purchaser or transferee may recover damages from any person, firm, corporation or agent selling, transferring or leasing land in violation of the SE Overlay District. Damages may include any amount reasonably spent as a result on inability to obtain any development permit and spent to conform to the requirements of the SE Overlay District, as well as cost of investigation, suit and reasonable attorney's fees occasioned thereby. Such purchaser, transferee or lesser may as an alternative to conforming their property to these requirements, rescind the sale, transfer or lease and recover cost of investigation and reasonable attorney's fees occasioned thereby from the violator.

U. Right of Entry

1. Whenever necessary to make an inspection to enforce any of the provisions of this chapter, or whenever the Planning Director or authorized representative has reasonable cause to believe that there exists upon any premises any condition which violates the provisions of this chapter, the Planning Director or authorized representative may enter such premises at all reasonable times to inspect the same or perform any duty imposed upon his/her by this chapter, provided that:

   a. If such premises are occupied, he/she shall present proper credentials and demand entry; and

b. If such premises are unoccupied, he/she shall first make a reasonable effort to locate the owner or other persons having charge or control of the premises and demand entry. If such entry is refused, the Planning Director or authorized representative shall have recourse to every remedy provided by law to secure entry.

2. No owner or occupant or any person having charge, care or control of any premises shall fail or neglect, after proper demand is made as herein provided, to promptly permit entry therein by the Planning Director or authorized representative for the purpose of inspection and examination pursuant to this chapter. Any person violating this subsection is guilty of a misdemeanor.

IV. Uses and Setbacks

A. Uses allowed on a lot in the SE Overlay District shall be the same as those listed in the underlying zone in which the lot is located. Each use shall be evaluated using the review process required for the use in the zone in conjunction with the requirements of state and federal regulations including the SMP.

B. The Medical lake, West Medical Lake and Silver Lake shorelines are designated into three of the following categories:

1. Natural Environment
2. Shoreline Residential Environment
3. Urban Conservancy Environment

C. Table 1, Use Compatibility Matrix. Identifies the uses and activities that require review for a Statement of Exemption, Substantial Shoreline Development or Shoreline Conditional Use Permit.

D. Table 2, Setback, Height and Dimensional Requirements, indicates setbacks, height and other dimensional requirements for structures, uses and activities conducted in the area of shoreline jurisdiction. Both the dimensional requirements and the applicable use and activity descriptions must be complied with in order for development in shoreline jurisdictions to occur.

1. To prevent the degradation of surface waters from entry nutrients, pesticides, manure and pathogens and sediment into surface waters, a riparian buffer a minimum of 35 feet is required for all areas located adjacent to surface waters. The riparian buffer shall include the required setbacks identified in Table 2. Native plants in the buffer must be left undisturbed unless presenting an immediate hazard to an overhead electrical line or structure or an approved riparian restoration/rehabilitation plan.

Table 1. Use Compatibility Matrix			
Use/Activity Designation	Environment Designation		
	Natural	Urban Conservancy	Shoreline Residential
Archeological, Cultural, & Historical (1)	E	E	E
Boating Facilities	X	SCUP	SSDP
Camp Sites	SSDP	SSDP	X
Commercial Development			
Water-dependent	X	SCUP	X
Water-related, water-enjoyment	X	SCUP	SCUP
Non-water oriented	X	X	X
Docks & Piers (1)	SCUP	E	E
Dredging	SCUP	SCUP	SCUP
Industrial Development	X	X	X
Landfill			
Landward of floodway	SCUP	SSDP	SSDP
Waterward of floodway (3)	SCUP	SCUP	SCUP
Landscaping			
Landward of OHWM (5)	SSDP	E	E
Waterward of OHWM	X	X	X
Mining	X	X	X
Parking			
Serving a permitted use (2)	SCUP	SSDP	SSDP
Stand alone	X	X	X
Recreational Development	SCUP	SSDP	SSDP
Residential Development			
Multi Family	X	SSDP	SSDP
Single Family (1)	SCUP	E	E
Signs			
Highway/public/temporary	SCUP	SSDP	SSDP
Off-premises/outdoor advertising	X	SSDP	SSDP
On-premises	SSDP	SSDP	SSDP
Shoreline Stabilization (1)(3)(5)	E	E	E
Solid Waste Disposal	X	X	X
Transportation Facilities	SCUP	SCUP	SCUP
Utilities	SCUP	SCUP	SCUP
Vegetation Management			
Landward of OHWM (1)(5)	E	E	E
Waterward of OHWM (4)	E, SCUP	E, SCUP	E, SCUP

Table 1 Notes:

(1) All exempt activities must comply with the goals, policies, and applicable use regulations of this program

(2) Must be located landward of the permitted use.

(3) Fill below the OHWM is only allowed in conjunction with an approved habitat restoration plan.

(4) Aquatic weed removal may be authorized through a Written Exemption if it is performed in accordance with the *Aquatic Plants and Fish publication #APF-11-97* issued by the Washington Department of Fish & Wildlife. Projects that fall outside the scope of the pamphlet may be authorized through a SCUP.

(5) Vegetation management is subject to the regulations found in Section 5.Q. Uses and Setbacks.

Table 2. Setback, Height, and Dimensional Standards Matrix			
Note: All structural setbacks and buffers are measured landward from the OHWM. Structural setbacks are designed to overlap the Vegetation Conservation Area.			
Use/Activity Designation	Environment Designation		
	Natural	Urban Conservancy	Shoreline Residential
Archeological, Cultural, & Historical (1)	n/a	n/a	n/a
Boating Facilities (2)	X	0'	0'
Camp Sites	150'	65'	X
Commercial Development (2)			
Water-dependent	X	0'	X
Water-related, water-enjoyment	X	65'	50'
Non-water oriented	X	X	X
Docks & Piers	n/a	n/a	n/a
Dredging	n/a	n/a	n/a
Industrial Development	X	X	X
Landfill			
Landward of floodway	150'	50'	35'
Waterward of floodway	n/a	n/a	n/a
Landscaping			
Landward of OHWM	150'	50'	35'
Waterward of OHWM	X	X	X
Mining	X	X	X
Parking			
Serving a permitted use (2)	165'	65'	50'
Stand alone	X	X	X
Recreational Development (2)			
Permanent recreation sites, playfields	150'	50'	35'
Access roads, restrooms, & accessory structures	165'	65'	50'
Private trails, perpendicular to OHWM (4)	n/a	n/a	n/a
Public trails, parallel to OHWM (5)	See (5)	See (5)	See (5)
Residential Development (2)			
Appurtenant Structures	150'	50'	50'
Dwelling Unit	165'	65'	50'
Signs			
Highway/public/temporary	150'	50'	35'
Off-premises/outdoor advertising	X	65'	50'
On-premises	150'	50'	35'
Solid Waste Disposal	X	X	X
Transportation Facilities			
Arterials, highways, & railroads	175'	150'	100'
Non-arterial, secondary & local access roads	165'	65'	50'
Utility distribution lines & building setback (2)	165'	65'	50'
Vegetation Conservation Area (1)	150'	50'	35'

Table 2 Notes:

(1) Minor pruning, removal of invasive species, and removal of hazard trees as designated by a certified arborist may be allowed within the Vegetation Conservation Area through the issuance of a Written Exemption.

(2) All permanent structures must comply with a building height limit of 35'.

(3) Impervious lot coverage should be the minimum amount necessary and shall not exceed 10% for the Natural and Urban Conservancy environments or 35% for the Shoreline Residential environment.

(4) Private trails must be unpaved, perpendicular to the buffer area, and no greater then 4 feet in width clearing the minimum amount of vegetation necessary.

(5) Public trails must be constructed subject to Section M- Vegetation Management and Section D.1.r Recreational

(6) All septic tanks shall be at least 100 feet from the ordinary high water mark.

V. Administrative Review – Shoreline Development

A. Archeological, Cultural and Historical

1. Regulations

   a. Permits issued in areas with suspected, probable, or documented cultural or archaeological resources require a site inspection or evaluation by a professional archaeologist in coordination and consultation with affected Indian tribes before construction may begin to determine the requirements to be implemented to protect any cultural or archaeological resources likely to be on site.

   b. Significant archeological, historical and cultural sites of community or regional interest shall be permanently preserved for scientific study, education and public observation. When the city determines scientific or historical value, a Shoreline Substantial Development Permit will not be issued which would pose a threat to the site. The city may require development be postponed in such areas to allow investigation of public acquisition potential and/or retrieval and preservation of significant artifacts.

   c. For Medical Lake, West Medical Lake and Silver Lake, in the event unforeseen factors constituting an emergency as defined in RCW 90.58.030 necessitate rapid action to retrieve or preserve artifacts or data identified above, the project may be exempted from the shoreline permit requirement of these regulations. The city shall notify Ecology and the State Attorney General's Office of such waiver in a timely manner.

   d. Commercial developments focusing on archeological, historic or cultural sites and facilities are subject to the regulations for commercial development.

   e. Archeological, cultural and historical activities shall comply with the specific requirements set forth in Tables 1 and 2 of this Section.

B. Landfills

1. Regulations

   a. Landfills are prohibited in any shoreline environment in the City of Medical Lake.

C. Parking

1. Regulations

   a. Parking facilities within the jurisdiction of these development regulations shall be designed and landscaped to minimize adverse impacts upon adjacent shorelines and abutting properties. The landscaping shall consist of preferable native vegetation or effective non-invasive exotic plants, to be planted within one (1) year after completion of construction and provide an effective screening three (3) years after planting.

   b. Upland parking facilities within the jurisdiction of these development regulations shall provide safe and convenient pedestrian circulation within the parking area and to the shoreline.

   c. Commercial parking facilities shall not be permitted over water or within shoreline jurisdiction.

d. Parking facilities serving individual buildings along the shoreline shall be located land-ward from the principal building being served, EXCEPT when the parking facility is within or beneath the structure and adequately screened or in cases where an alternate orientation would have less adverse impact on the shoreline environment and is located landward of the required setback.

e. Parking facilities shall provide adequate provisions to control surface water runoff from contaminating shorelines. This is the responsibility of the facility owner.

f. Parking activities shall comply with the specific requirements set forth in Tables 1 and 2 of this Section.

D. Recreational

1. Regulations

a. All proposed recreational development shall be analyzed for their potential effect on shoreline environmental quality and natural resource.

b. Recreational development shall comply with updated local and state health regulations at all times, and such compliance made a condition of the shoreline permit.

c. Favorable consideration shall be given to developments which provide public recreational uses and facilitate public access to shorelines.

d. Vehicular traffic is prohibited on beaches, bars, spits and streambeds. Parameters of parking areas shall be landscaped to minimize visual impacts to shorelines, roadways and adjacent properties.

e. Recreational development shall provide facilities for non-motorized access, such as pedestrian or bicycle paths, to link upland recreation areas to shorelines.

f. Recreational facilities shall make adequate provisions, such as screening, buffer strips, fences and signs to prevent overflow and to protect the value and enjoyment of adjacent or nearby private properties.

g. Recreational facilities shall make adequate provisions for water supply, sewage disposal and garbage collection.

h. To prevent natural resources and adjacent properties, recreational facility design and
h. operation shall prohibit use of all-terrain and off-road vehicles in shoreline areas.

i. All permanent recreational structures and facilities shall be located outside officially mapped floodways, EXCEPT the city may grant exceptions for non-intensive accessory uses (i.e. picnic tables, benches, etc.) Trailer spaces, developed camping sites and similar facilities shall not be located in the floodway.

j. Accessory facilities, such as restrooms, recreation halls, commercial services, access roads and parking areas shall be located outside of the floodway unless it can be shown such facilities are shoreline dependent. These areas shall be linked to shorelines by walkways.

k. For recreational development requiring the use of fertilizers, pesticides or other toxic chemicals, such as golf courses and playfields, the Applicant shall submit plans for demonstrating methods to be used to prevent leachate from entering adjacent water bodies. Buffer strips utilizing native and/or non-invasive exotic vegetation shall be

included in the plan. The city shall determine the maximum width necessary for buffer strips, but in no case shall the buffer strip be less than twenty-five (25) feet.

l. In approving shoreline recreational development, the city shall ensure development will maintain, enhance or restore desirable shoreline features, including unique and fragile areas, wetlands, scenic views and aesthetic values. To this end, the city may condition project dimensions, location of project components on the site, intensity of use, screening, parking requirements and setbacks as deemed appropriate to accomplish this.

m. No recreation building or structure, except bridges, shall be built over the water.

n. Proposals for recreational development shall include plans for sewage disposal. Where treatment facilities are not available, the city shall limit the intensity of development to meet County and State on-site sewage disposal requirements.

o. Signs indicating the public are right of access to shoreline areas shall be installed and maintained in conspicuous occasions at the point of access and the entrance thereto.

p. Proposals for recreational development shall include a landscape plan. Native, self-sustaining vegetation is preferred but non-invasive exotic species may be suitable with city approval. The removal of on-site vegetation shall be limited to the minimum amount necessary for the development of permitted structures or facilities.

q. Recreational development shall comply with the specific requirements set forth in Tables 1 and 2 of this Section.

r. Public non-motorized multi-use equestrian pedestrian/bike trails shall only be allowed in the shoreline buffer when:

i. Parallel pathways and trails are located at the landward edge of the shoreline buffer with the following exceptions:

(I) When physical constraints, public safety concerns, or public ownership limitations merit otherwise, or

(II) when the trail will make use of an existing constructed grade such as those formed by an abandoned rail grade, road or utility; or

(III) when it can be demonstrated in the that the trail will enhance the shoreline ecological functions of the riparian area and mitigation sequencing is applied;

ii. Perpendicular pathways and trails and river crossings are sited in a location that has the least impact to shoreline ecological functions with mitigation sequencing as specified in Chapter 4 of this SMP. Previously altered or disturbed locations shall be preferred;

iii. Located, constructed, and maintained so as to avoid, to the maximum extent possible, removal and other impacts to perennial native vegetation, including trees, standing snags, forbs, grasses and shrubs, consistent with Section M – Vegetation Management in this Chapter;

iv. Alternatives to impervious paving should be considered and are encouraged;

v. Total trail width inclusive of shoulders will be the minimum width necessary to achieve the intended use and shall not exceed 14 feet.

f. Disturbed areas (outside of the designated trail and trail shoulders) shall be revegetated with native vegetation consistent with the Section M – Vegetation Management in this Chapter.

E. Residential

1. Regulations

a. Residential development shall not be approved where flood control, shoreline protection measures or bulk heading will be required to create residential lots or site area. Residential development shall be located and designed to avoid the need for structural shore defense and flood protection measures.
b. If marshes, bogs, swamps or other unique features are located on a development site, clustering or similar design of residential units shall be required in order to avoid any development in such areas.
c. Residential development is prohibited within floodways and within other hazardous areas such as steep slopes and areas with unstable soils or geologic conditions.
d. Residential structures and accessory structures are prohibited over water or floating on the water.
e. All residential structures, accessory uses and facilities shall be arranged and designed to preserve views and vistas to and from shorelines and water bodies, and be compatible with the aesthetic values of the surrounding area.
f. Prior to the issuance of a building permit, Substantial Shoreline Development Permit or other development permit the developer shall submit adequate plans for preservation of shoreline vegetation for control of erosion during and after construction, and for the replanting of the site after construction resulting in permanent shoreline stabilization.
g. Storm drainage facilities shall be separate from sewage disposal transport facilities and include provisions to prevent uncontrolled and untreated direct surface water runoff into receiving waters. Storm drainage facilities may include, but not be limited to, retention ponds, vegetated swales and artificial wetlands.
h. Subdivisions and planned unit developments of five (5) or more waterfront lots shall dedicate, improve and provide maintenance provisions for a pedestrian easement which provides area sufficient to ensure access to shorelines for all residents of the development and the general public. When required, public access easements shall be a minimum of twenty-five (25) feet wide.
i. Residential development in shoreline jurisdictions shall meet the dimensional requirements established in Table 2, EXCEPT as provided in subsection (j) below.
j. For New Residential development, setbacks in Table 2 shall not apply in cases where the majority of existing development in the area does not meet these established setback standards. In such cases residential structures shall be setback common to the average of setbacks for existing dwelling units within one hundred-fifty (150) feet of side property lines or a minimum of fifty (50) feet whichever is greater. If there are only one (1) or no dwelling units within 150 feet of side property lines, the shoreline setback requirements of Table 2 shall apply. Setback relaxation allowed in this subsection is subject to approval by the Administrator, but by no greater than 25% reduction may be approved without a Variance Permit. Any further deviation from setback requirements, beyond that allowed in this subsection shall require approval of a Shoreline Variance Permit. In such cases, a vegetation mitigation plan shall be submitted with the applicant's proposal.
k. Re-development of existing residential structures or appurtenant structures shall occur landward of the existing primary structure, and shall not protrude further into setback

and are encourage to be located landward of the setbacks. A vegetation mitigation plan shall be submitted with an applicant's expansion proposal.

l. Residential development shall comply with the specific requirements set forth in Tables 1 and 2 of this Section.

m. Single-family residential development is permitted subject to the regulations contained herein. Single-family development greater than thirty-five feet (35') high require approval of both a Shoreline Substantial Development Permit and Shoreline Variance Permit. Although a Shoreline Substantial Development Permit is not required for construction within a shoreline jurisdiction by an owner, lessee or contract purchaser of a single-family residence for their own use or the use of their family, such construction and all normal accessory structures must otherwise conform to these development regulations

F. Shoreline Stabilization and Flood Protection

When appropriate, proposals for shoreline stabilization and flood protection shall conform to other applicable shoreline use and activity policies and regulations, including landfill and transportation facilities

1. Regulations

a. All applicable federal and state permits shall be obtained and complied with in construction and operation of shoreline stabilization and flood protection activities.

b. All development activities shall be located and designed to prevent or minimize the need for shoreline stabilization and flood protection, such as bulkheads, riprap, landfills, levees, dikes, groins, jetties or substantial site re-grades.

c. The city shall require and utilize the following information during its review of shoreline stabilization and flood protection proposals.

i. Purpose of project.
ii. Hydraulic characteristics of shorelines within one half (½) mile on each side of the proposed project.
iii. Existing shoreline stabilization and flood protection devices within ½ mile on each side of the proposed project.
iv. Construction material and methods.
v. Physical, geological and/or soil characteristics of the area.
vi. Predicted impact upon shorelines and hydraulic processes adjacent properties and shorelines and water uses.
vii. Alternative measures, including non-structural, which will achieve the same purpose.

d. Shoreline stabilization and flood protection measures shall not be designed and constructed in such a manner resulting in channelization of normal stream flows.

e. Stream channel direction modification, realignment and straightening are prohibited, unless they are essential to uses consistent with the city's shoreline goals and policies.

f. Flood control diking shall be landward of the floodway of the base , or one hundred (100) year floodplain and any marshes, bogs or swamps associated or directly interrelated and interdependent with the shorelines of the city.

g. Upon project completion, all disturbed shoreline areas shall be restored to an improved condition by replanting with native grasses, shrubs and/or trees. If native

species cannot be obtained, non-invasive exotic vegetation may be substituted for stabilization purposes with approval of the Administrator.

h. Shoreline stabilization and flood protection measures are prohibited on wetlands and on point and channel bars. They are also prohibited in salmon and trout spawning areas, except for fish and wildlife habitat enhancements.

i. The city shall require dedication and improvement in linear public access along new dikes when it determines such access to be in the public interest.

j. Shoreline stabilization or flood control measures shall, to the extent possible, be planned, designed and constructed to allow for channel migration. These measures shall not reduce the volume and storage capacity of waterways and adjacent wetlands or floodplains.

k. Use of car bodies, scrap building materials, asphalt or concrete from street work, or any other discarded pieces of equipment, concrete or appliances for the stabilization of shorelines is prohibited.

l. The developer or owner of property shall remove and dispose of materials used in previous stabilization measures.

m. Shoreline stabilization and flood protection shall comply with the specific requirements set forth in Tables 1 and 2 of this Section.

n. New development should be located and designed to avoid the need for future shoreline stabilization to the extent feasible. Subdivision of land must be regulated to assure that the lots created will not require shoreline stabilization in order for reasonable development to occur using geotechnical analysis of the site and shoreline characteristics. New development on steep slopes or bluffs shall be set back sufficiently to ensure that shoreline stabilization is unlikely to be necessary during the life of the structure, as demonstrated by a geotechnical analysis. New development that would require shoreline stabilization which causes significant impacts to adjacent or down-current properties and shoreline areas should not be allowed.

o. New structural stabilization measures shall not be allowed except when necessity is demonstrated in the following manner:

    i. To protect existing primary structures:

        1) New or enlarged structural shoreline stabilization measures for an existing primary structure, including residences, should not be allowed unless there is conclusive evidence, documented by a geotechnical analysis that the structure is in danger from shoreline erosion caused by tidal action, currents, or waves. Normal sloughing, erosion of steep bluffs, or shoreline erosion itself, without a scientific or geotechnical analysis, is not demonstration of need. The geotechnical analysis should evaluate on-site drainage issues and address drainage problems away from the shoreline edge before considering structural shoreline stabilization.

        2) The erosion control structure will not result in a net loss of shoreline ecological functions.

    ii. In support of new non-water-dependent development, including single-family residences, when all of the conditions below apply:

1) The erosion is not being caused by upland conditions, such as the loss of vegetation and drainage.

2) Nonstructural measures, such as placing the development further from the shoreline, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient.

3) The need to protect primary structures from damage due to erosion is demonstrated through a geotechnical report. The damage must be caused by natural processes, such as tidal action, currents, and waves.

4) The erosion control structure will not result in a net loss of shoreline ecological functions.

iii. In support of water-dependent development when all of the conditions below apply:

1) The erosion is not being caused by upland conditions, such as the loss of vegetation and drainage.

2) Nonstructural measures, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient.

3) The need to protect primary structures from damage due to erosion is demonstrated through a geotechnical report.

4) The erosion control structure will not result in a net loss of shoreline ecological functions.

iv. To protect projects for the restoration of ecological functions or hazardous substance remediation projects pursuant to chapter 70.105D RCW when all of the conditions below apply:

1) Nonstructural measures, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient.

2) The erosion control structure will not result in a net loss of shoreline ecological functions.

p. An existing shoreline stabilization structure may be replaced with a similar structure if there is a demonstrated need to protect principal uses or structures from erosion caused by currents, tidal action, or waves.

i. The replacement structure should be designed, located, sized, and constructed to assure no net loss of ecological functions.

ii. Replacement walls or bulkheads shall not encroach waterward of the ordinary high-water mark or existing structure unless the residence was occupied prior to January 1, 1992, and there are overriding safety or environmental concerns. In such cases, the replacement structure shall abut the existing shoreline stabilization structure.

iii. Where a net loss of ecological functions associated with critical saltwater habitats would occur by leaving the existing structure, remove it as part of the replacement measure.

iv. Soft shoreline stabilization measures that provide restoration of shoreline ecological functions may be permitted waterward of the ordinary high-water mark.

v. For purposes of this section standards on shoreline stabilization measures, "replacement" means the construction of a new structure to perform a shoreline stabilization function of an existing structure which can no longer adequately serve its purpose. Additions to or increases in size of existing shoreline stabilization measures shall be considered new structures.

q. Geotechnical reports pursuant to this section that address the need to prevent potential damage to a primary structure shall address the necessity for shoreline stabilization by estimating time frames and rates of erosion and report on the urgency associated with the specific situation. As a general matter, hard armoring solutions should not be authorized except when a report confirms that there is a significant possibility that such a structure will be damaged within three years as a result of shoreline erosion in the absence of such hard armoring measures, or where waiting until the need is that immediate, would foreclose the opportunity to use measures that avoid impacts on ecological functions. Thus, where the geotechnical report confirms a need to prevent potential damage to a primary structure, but the need is not as immediate as the three years that report may still be used to justify more immediate authorization to protect against erosion using soft measures.

r. When any structural shoreline stabilization measures are demonstrated to be necessary, pursuant to above provisions.

i. Limit the size of stabilization measures to the minimum necessary. Use measures designed to assure no net loss of shoreline ecological functions. Soft approaches shall be used unless demonstrated not to be sufficient to protect primary structures, dwellings, and businesses.

ii. Ensure that publicly financed or subsidized shoreline erosion control measures do not restrict appropriate public access to the shoreline except where such access is determined to be infeasible because of incompatible uses, safety, security, or harm to ecological functions. See public access provisions; Chapter 4 (II)(B)(3). Where feasible, incorporate ecological restoration and public access improvements into the project.

iii. Mitigate new erosion control measures, including replacement structures, on feeder bluffs or other actions that affect beach sediment-producing areas to avoid and, if that is not possible, to minimize adverse impacts to sediment conveyance systems. Where sediment conveyance systems cross jurisdictional boundaries, local governments should coordinate shoreline management efforts. If beach erosion is threatening existing development, local governments should adopt master program provisions for a beach management district or other institutional mechanism to provide comprehensive mitigation for the adverse impacts of erosion control measures.

s. For erosion or mass wasting due to upland conditions, see Chapter 4 (VI)(L).

G. Signs.

1. Regulations.

a. Off-premises, detached outdoor advertising signs are prohibited in all shoreline jurisdictions.

b. Lighted signs shall be hooded; shaded or aimed so direct light of lamps will not result in glare when viewed from surrounding properties right-of-ways or watercourses

c. All signs shall be located and designed to minimize interference with vistas, viewpoints and/or visual access to the shoreline. Whenever feasible signs shall be flush mounted against existing buildings.

d. On premises signs, related to specific on-site activities shall not exceed thirty-two square feet (32 sq. ft.) in surface area. On premises free-standing signs shall not exceed six feet (6') in height.

e. Temporary or obsolete signs shall be removed within ten (10) days of elections, closures of business or termination of any other intended functions.

f. The following types of signs are permitted in any shoreline jurisdiction.

   i. Highway or railroad sign necessary for direction, safety or public information

   ii. Public information sign directly related to a permitted local shoreline activity.

   iii. Temporary directional sign to public or quasi-public events. Such signs shall be removed within ten (10) days following the event.

g. Spinners, streamers, pennants and flashing lights used for commercial purposes (except flashing highway and railroad signs) and other attention getting devices are prohibited in all shoreline environments.

h. Signs must follow the provisions and requirements of applicable City of Medical lake ordinances and regulations.

i. Signs shall comply with the specific requirements set forth in Tables 1 and 2 of this Section.

H. Solid Waste Disposal

1. Regulations

   a. Shorelines shall not be used for any disposal of solid wastes

   b. Solid waste disposal is prohibited in all shoreline jurisdictions. Temporary storage in litter or refuse containers is permitted in shorelines areas if maintained in sanitary conditions in complia0nce with all state and local health requirements.

I. Transportation Facilities

1. Regulations

   a. Proposals for shoreline transportation facilities shall adequately demonstrate the following:

      i. Need for a shoreline location and no reasonable upland alternative exists.

      ii. Construction is designed to protect the adjacent shoreline against erosion, uncontrolled or polluting drainage and other factors detrimental to the environment both during and after construction.

      iii. Project has been designed to fit existing topography as much as possible, thus minimizing alterations to the natural environment.

      iv. All debris, overburden and other waste materials from construction will be handled, maintained and disposed of in such a way as to prevent their entry into any water body.

b. Culvert installations in waterways shall meet the requirements of the Washington State Department of Fish and Wildlife. Such culvert installations may require a hydraulics permit.

c. All excess construction materials shall be removed from the shoreline areas following completion of construction.

d. All excavation materials and soils exposed to erosion by all phases of road, and culvert work shall be stabilized and protected by seeding, mulching or other effective means, both during and after construction.

e. Where permitted to parallel shorelines, roads shall be setback a sufficient distance from the OHWM to leave a usable shoreline area for shoreline recreation, access or natural riparian zone.

f. Transportation and utility facilities shall make joint use of right-of-ways and consolidate crossings of water bodies where adverse impact to shoreline can be minimize by doing so.

g. Landfills for transportation facility developments are not permitted in water bodies or on associated wetlands.

h. New transportation facilities in shoreline jurisdictions should be located and designed to minimize or prevent the need for shoreline protective measures, such as riprap or other bank stabilization, landfill, bulkheads, groins, jetties or substantial site re-grading.

i. Transportation facilities shall include stormwater run-off filtering.

j. Transportation facilities shall comply with the special requirements set forth in Tables 1 and 2 of this Section.

J. Utilities

These provisions apply to services and facilities that produce, convey, store, or process power, gas, sewage, communications, oil, waste, and the like. On-site utility features serving a primary use, such as a water, sewer or gas line to a residence, are "accessory utilities" and shall be considered a part of the primary use.

1. Regulations.
    a. Applications for installation of utility facilities shall include the following:
        i. Description of the proposed facilities
        ii. Reason(s) why the utility facility requires a shoreline location.
        iii. Alternative locations considered and reasons for their elimination.
        iv. Locations of other utility facilities in the vicinity of the proposed project and any plans to include the facilities of other types of utilities in the project.
        v. Plans for reclamation of areas disturbed by construction.
        vi. Plans for control of erosion and turbidity during construction.
        vii. Identification of any possibility for locating the proposed facility within an existing utility right-of-way.
        viii. Project timeline including duration of project and proposed dates of project start and completion.

b. Utility development shall, through coordination with government agencies, provide for compatible, multiple uses of sites and right-of-ways. Such uses include shoreline access points; trail systems and other forms of recreation and transportation. Provisions of such uses will not unduly interfere with utility operations, or endanger public health and safety.

c. The following utility facilities, which are not essentially water-oriented, are prohibited in shoreline jurisdictions unless authorized by a Shoreline Conditional Use Permit where it can be sown that no alternative exists:

   i. Water and sewer system treatment plants.

   ii. Utility substations and control facilities.

   iii. Accessory uses and administrative structures for utilities.

d. In shoreline jurisdictions, utility transmission lines, pipeline and cables shall be placed underground unless demonstrated to be feasible. Utility facilities shall be located and designed to avoid destruction or damage to marshes, bogs and swamps; important wildlife areas and other unique and fragile areas.

e. Necessary underwater pipelines transporting materially intrinsically harmful to aquatic life or potentially injurious to water quality, including sewer lines, shall be provided with automatic shut off valves at each end of the underwater segments.

f. Where major utility facilities must be placed in shoreline jurisdiction, the location and design shall be chosen to not destroy or obstruct existing scenic views.

g. Utility development allowed in shoreline jurisdictions shall utilize required setback areas for screening of facilities from water bodies. Additional screening may be required and determined on a case-by-case basis.

h. Clearing for the installation or maintenance of utilities shall be kept to a minimum and upon project completion any disturbed areas shall be restored or brought to a condition better than prior activities, including replacing with native or non-invasive exotic species and maintenance care until the newly planted vegetation is established.

i. Utility facilities shall comply with the specific requirements set forth in Tables 1 and 2 of this Section.

K. Piers and Docks

1. Regulations

   a. Docks may be allowed in accordance with Table 1 and Table 2 and only when the following conditions are met.

   b. The public's need for docks is clearly demonstrated, and the proposal is consistent with protection of the public trust, as embodied in RCW 90.58.020.

   c. The project, including any required mitigation, will result in no net loss of ecological functions.

   d. The project is consistent with the state's interest in resource protection and species recovery.

   e. An inventory of the site and adjacent beach sections to assess the presence of critical habitats and functions is required. The methods and extent of the inventory shall be

consistent with accepted research methodology. Proposals will be evaluated using Department technical assistance materials for guidance.

f. Industrial docks shall be permitted only for water-dependent uses, and only if the applicant/proponent demonstrates that existing facilities in the vicinity, including any shared moorage, are not adequate or feasible for the proposed water-dependent use.

g. Docks shall be constructed of materials that will not adversely affect water quality or aquatic plants and animals over the long term. Materials used for submerged portions of a dock, decking, and other components that may come in contact with water shall be approved by applicable state agencies for use in water to avoid discharge of pollutants from wave splash, rain, or runoff.

h. To minimize adverse effects on near shore habitats and species caused by overwater structures that reduce ambient light levels, the following shall apply:

    i. The width of docks, floats, and lifts shall be the minimum necessary, and shall not be wider than eight (8) feet unless authorized by state resource agencies.

    ii. Materials that will allow light to pass through the deck may be required.

L. Boating Facilities

Boating facilities include boat launch ramps (public and private), wet and dry boat storage, and related sales and service for pleasure and commercial watercraft. For the purpose of this section, boat hoists, davits, lifts, and/or dry boat storage of private watercraft consistent with single-family residential properties are not included.

1. Regulations

    a. Boating facilities may be permitted only if:

        i. It can be demonstrated that the facility will not adversely impact fish or wildlife habitat areas or associated wetlands; and

        ii. Adequate mitigation measures ensure that there is no net loss of the functions or values of the shoreline and habitat as a result of the facility.

    b. Boating facilities shall not be permitted within designated wetlands because of their scarcity, biological productivity and sensitivity.

        i. Preferred ramp designs, in order of priority, are:

            (I) Open grid designs with minimum coverage of shore substrate;
            (II) Seasonal ramps that can be removed and stored upland;
            (III) Structures with segmented pads and flexible connections that leave space for natural shore substrate and can adapt to changes in shore profile.

        ii. Ramps shall be placed and maintained near flush with the foreshore slope.

        iii. Boat launches shall be designed and constructed using methods/technology that have been recognized and approved by state and federal resource agencies as the best currently available. Rail and track systems shall be preferred over concrete ramps or similar facilities.

        iv. Launch access for non-motorized watercraft shall use gravel or other permeable material.

v. Removal of vegetation for launch access should be limited to eight (8) feet in width and done in accordance with the vegetation management standards in the Native Conservation Area.

vi. Before granting approval of a permit to allow a boat launch ramp, the proponent must satisfactorily demonstrate that:

(I) Adequate facilities for the efficient handling of litter will be provided;

(II) The boating facilities will be designed so that structures are aesthetically compatible with, or enhance shoreline features and uses; and

(III) The boating facilities will be designed so that existing or potential public access along the shoreline is not blocked or made unsafe, and so that public use of the surface waters is not unduly impaired.

c. Dry Boat Storage

i. Dry boat storage shall not be considered a water-oriented use and must comply with the required shoreline environment setback.

ii. Only water-dependent aspects of dry-boat storage, such as boat hoists and boat launch ramps may be permitted within shoreline environment setbacks.

iii. Boat launch ramps associated with dry boat storage shall be consistent with applicable requirements in this section.

M. Vegetation Management

As detailed in WAC 173-26-221(5)(b): the Shoreline Master Program shall include planning provisions that address vegetation conservation and restoration, and regulatory provisions that address conservation of vegetation; as necessary to assure no net loss of shoreline ecological functions and ecosystem-wide processes, to avoid adverse impacts to soil hydrology, and to reduce the hazard of slope failures or accelerated erosion.

1. Regulations

a. Treated wood shall not be used for landscaping within the Buffer area.

b. Hand removal of noxious and invasive weeds is allowed without a permit. Consult an expert for proper identification of noxious and invasive species before removing any vegetation.

c. The following is allowed without a permit through a written Statement of Exemption.

i. Within the Buffer area:

(I) View Corridors

a) One view corridor may be permitted per parcel, when consistent with the provisions of this Chapter. A mitigation and management plan must be submitted for review and approval; either with a complete building permit application for a new single family residence or associated with an existing single family residence.

i) In addition to the submittal of a complete mitigation and management plan, an applicant must submit the following materials:

1) A signed application form by the property owner of the shoreline proposed for vegetation alterations.

2) A scaled graphic which demonstrates a side, top and bottom parameter for the view corridor with existing vegetation and proposed alterations. The view corridor shall be limited to twenty-five percent (25%) of the width of the lot, or twenty-five (25) feet, whichever distance is less.

3) A graphic and/or site photos for the entire shoreline frontage which demonstrates that the parcel and proposed or existing home does or will not when constructed have a view corridor of the water body, taking into account site topography and the location of shoreline vegetation on the parcel.

ii) Demonstration that the applicant does not have an existing or proposed shoreline access corridor or dock access corridor.

iii) Applications for view corridors must also be consistent with the following standards:

1) Native vegetation removal shall be prohibited.

2) Pruning of native vegetation shall not exceed thirty percent (30%) of a tree's limbs. No tree topping shall occur. Pruning of vegetation waterward of the ordinary high water mark is prohibited.

3) Non-native vegetation within a view corridor may be removed when the mitigation and management plan can demonstrate a net gain in site functions, and where impacts are mitigated at a ratio of one (1) square foot of vegetation removed to vegetation replaced.

4) Whenever possible, view corridors shall be located in areas dominated with non-native vegetation and invasive species.

5) Pruning shall be done in a manner that shall ensure the continued survival of vegetation.

6) The applicant shall clearly establish that fragmentation of fish and wildlife habitat will not occur, and that there is not a net loss of site ecological functions.

7) A view corridor may be issued once for a property. No additional vegetation pruning for the view corridor is authorized except as may be permitted to maintain the approved view corridor from the re-growth of pruned limbs. Limitations and guidelines for this maintenance shall be established in the mitigation and management plan by the applicant, to be reviewed and approved by the Director.

8) A hardened path within the view corridor, no wider than four (4) feet, consisting of materials like pavers, rocks, untreated wood, etc. is allowed for each parcel as a path to the shoreline. Pervious materials are preferred over impervious materials.

(II) Tree Retention:

a) To maintain the ecological functions that trees provide to the shoreline environment, trees with trunk diameters greater than six (6) inches shall be managed as follows:

i) Within the Buffer area, trees with trunk diameters greater than six (6) inches shall not be removed or topped for the purpose of creating views. Tree removal activities would include direct or indirect actions, including, but not limited to:

1) Clearing, damaging or poisoning resulting in an unhealthy or dead tree;

2) Removal of at least half of the live crown; or

3) Damage to roots or trunk that is likely to destroy the tree's structural integrity.

ii) Within the Buffer area, trees with a trunk diameter greater than six (6) inches shall be retained to the maximum extent possible, except where the tree is dead, diseased, dying or hazardous as determined by a qualified professional.

iii) If removal of a non-hazard tree with a trunk diameter greater than six (6) inches in the Buffer area is approved, a one-for-one replacement is required. For hazard trees, a one-for-one replacement is required. The required minimum size of the replacement tree(s) shall be five (5) feet tall for a conifer and one and three-quarters (1 ¾) inch caliper for deciduous or broad-leaf evergreen tree.

iv) For required replacement trees, a planting plan showing location, size and species of the new trees is required. All replacement trees in the shoreline buffer must be native species.

(III) Tree Pruning and Removal within the Buffer area:

a) Selective pruning of trees for safety is allowed if the trees pose a significant safety hazard as indicated in a written report by a certified arborist or other qualified professional, they may be removed if the hazard cannot be removed by topping or other technique that maintains some habitat function. Stumps should be retained in the ground to provide soil stabilization unless another soil stabilization technique is utilized immediately after stump removal.

b) All other tree removal in the Shoreline Management Area landward of the Buffer area, proposed as part of an approved use or development, shall be minimized through site design and mitigated.

c) Tree replacement shall occur at a one to one (1:1) ratio, with native trees replaced with a similar native tree. Non-native trees may be replaced with a native tree or another non-native tree, provided that no invasive or noxious trees are allowed.

(IV) Vegetation Maintenance within existing rights of way:

a) Vegetation management that is part of a regular, ongoing maintenance program, that:

i) Does not expand further into the Shoreline Management Area, or critical area;

ii) Does not result in an expansion of the utility corridor, and;

iii) Does not directly impact endangered species; is allowed. Maintenance activities will use best management practices and shall, whenever possible, be confined to summer and fall.

VI) Critical Areas within Shoreline Jurisdiction

A. This section applies to the construction, alteration or enlargement of any building or structure, excavation, grading, earthwork construction and the removal of vegetation on any land which meets the classification standards for any critical area as defined in this section that is within the shoreline enhancement overlay as defined by this chapter.

B. Where one (1) site is classified as two (2) or more critical areas, the project shall meet the minimum standards and requirements for each identified critical area as set forth in this section.

C. Critical areas may be located through the use of the U.S. Department of Interior National Wetlands Inventory Map for the City of Medical Lake, WDFW Priority Habitats and Species Maps, and other general resource maps available in the Planning Department including this Shoreline Master Program. Resource lands and critical areas not shown on the data maps are presumed to exist within the city and are protected under all provisions of this section. The exact location of resource lands and critical areas shall be determined by the Applicant as a result of field investigations performed by qualified professionals.

D. This section shall not repeal, abrogate or impair any existing regulations, easements, covenants or deed restrictions. However, this section imposes greater restrictions and provisions of this section shall prevail.

E. Except as specifically provided in this section, no regulated activity shall occur or be permitted to occur that may have a possible significant impact on critical areas without a Critical Areas Permit (CAP) from the city. The CAP shall be in addition to any shoreline permit or exemption. All activities that are not expressly allowed or permitted shall be prohibited. Activities excepted or exempted, varied or conditioned by CAPs are not automatically excepted or exempted from compliance with this SMP.

F. The following activities shall require a CAP:

1. In fish and wildlife conservation areas, any land use or other activity having the potential to significantly degrade the habitat or harm fish and wildlife.
2. In geologically sensitive areas. Any land use or other activity likely to contribute to a significant increase in geological hazards or to place people in danger.
3. Within three hundred (300) feet of any wetland and its buffer, any land use or other activity having the potential to degrade or reduce the ecological function of the wetland including:
    a. The removal, excavation, grading or degrading of any kind; the dumping, discharging or filling with any material.

b. The draining, flooding or disturbing of the water level or water table; the driving of piling; the placing of obstructions; the construction, reconstruction or demolition or expansion of any structure.

c. The destruction or alteration of wetlands vegetation through clearing, harvesting, shading, intentional burning or planting of vegetation that would alter the character of a regulated wetland, provided that these activities are not part of a forest practice governed under RCW 76.09 and it rules, or

d. Activities that result in a significant change of physical or chemical characteristics or wetland water sources, including quantity or the introduction of pollutants.

e. Activities reducing the functions of buffers; or

f. Other uses or activities that result in a significant ecological impact to the physical, chemical, or biological characteristics of wetlands, or any net loss of shoreline ecological functions.

g. Projects containing critical areas shall include measures to mitigate environmental impacts not otherwise avoided or mitigated by compliance with applicable regulations. The mitigation sequence in WAC 173-26-201(2)(e) shall be used. Mitigation measures shall be applied in the following sequence of steps listed in order of priority, with (i) of this subsection being top priority.

    i. Avoiding the impact altogether by not taking a certain action or parts of an action;

    ii. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts;

    iii. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;

    iv. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;

    v. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments in compliance with Chapter 11, Shoreline Protection and Restoration.

    vi. Monitoring the impact and taking appropriate corrective measures. Monitoring and contingency actions shall be specified as conditions in the shoreline permit or approved exemption for the project. The proponent shall guarantee the monitoring and contingency actions with a performance bond or other surety acceptable to the City Attorney.

G. The review and approval of a CAP shall be done in conjunction with the shoreline permit it is related to or in the event the proposal is exempt from a shoreline permit the project shall be reviewed consistent with this section. An application shall only be approved if the application, as conditioned, is consistent with the provisions of this section. Additionally, a CAP shall only be granted if:

1. A proposed action avoids adverse impacts to critical areas or their buffers or takes affirmative and appropriate measures to minimize and compensate for unavoidable impacts.

2. The proposed activity results in no net loss of ecological functions.

The review and approval of a CAP shall be done in conjunction with the shoreline permit it is developed for.

H. Aquifer Recharge Areas

Aquifer Recharge Areas are areas with a critical recharging effect on aquifers used for potable waters. They are highly vulnerable to contamination from intensive land uses.

Note that Aquifer Recharge Areas are a type of Critical Area, so the General Provisions and Regulations for Critical Areas also apply.

1. Regulations
    a. All uses and activities in shoreline areas, including individual single-family residences, shall be subject to the Aquifer Recharge Area provisions of this section.
    b. Discharge in to the groundwater of the city shall not contribute contaminants or facilitate degradation of aquifers. Development approvals shall ensure that all best management practices are employed to avoid contributing pollutants to aquifers. Where warranted, based on the findings of a site analysis or hydrogeologic assessment, complete collection and disposal of stormwater may be required. The Stormwater Management Manual for Eastern Washington (Washington Department of Ecology Publication 04-10-076, or as revised) shall provide the preferred guidance for stormwater best management practices.
    c. A site analysis shall be required when any use or activity is proposed in an area in which, based on the findings of the Shoreline Inventory and Characterization, runoff or infiltration is likely to recharge an aquifer. The site analysis shall use scientifically valid methods and studies to establish existing (baseline) water quality and shall be used to develop conditions of approval to ensure that the proposed development will not contribute contaminants or facilitate degradation of recharge areas. The site analysis shall be based on the following items:
        i. Available information about regional groundwater hydrology
        ii. Detailed information about
            (I) Hydrogeologic susceptibility to contamination and contaminant loading potential.
            (II) Depth to groundwater.
            (III) Hydraulic conductivity and gradient.
            (IV) Soil texture, permeability, and contaminant attenuation potential.
    d. A hydrogeologic assessment shall be required for the following land uses:
        i. Hazardous substance processing and handling.
        ii. Hazardous waste treatment and storage facility.
        iii. Wastewater treatment plant sludge disposal.
        iv. Solid waste disposal facility.
    e. A required hydrogeologic assessment shall be submitted by a hydrogeologist licensed by the state of Washington. The hydrogeologic assessment shall use scientifically valid methods and studies to establish existing (baseline) water quality and shall be used to develop conditions of approval to ensure that the proposed development will not contribute contaminants or facilitate degradation of recharge areas. In addition to

the information required in all critical areas reports, the assessment shall include, at a minimum:

i. Pertinent well log and geologic data.

ii. Ambient groundwater quality.

iii. Groundwater elevation.

iv. Recharge potential of facility site.

v. Current data on wells and any springs located within one thousand feet (1,000') of the facility.

vi. Surface water location and potential recharge.

vii. Water supply source for the facility.

viii. Analysis and discussion of the effects of the proposed project on the groundwater resource.

f. A required hydrogeologic assessment must demonstrate that the proposed use does not present a threat of contamination to the aquifer system. Successful demonstration of those findings warrants approval under this section.

I. Frequently Flooded and Flood Hazard Areas

The following regulations must be factored into decisions regarding all flood management planning and development within that portion of the 100-year floodplain that falls within Shoreline Jurisdiction. Floodplain management involves actions taken with the primary purpose of preventing or mitigating damage due to flooding. Floodplain management can involve planning and zoning to control development, either to reduce risks to human life and property, or to prevent development from contributing to the severity of flooding. Floodplain management can also address the design of developments to reduce flood damage and the construction of flood controls, such as dikes, dams, engineered floodways, and bioengineering.

1. Regulations

a. The City shall require and utilize the following information as appropriate during its review of shoreline flood management projects and programs:

i. Stream channel hydraulics and floodway characteristics, up and downstream from the project area;

ii. Existing shoreline stabilization and flood protection works within the area;

iii. Physical, geological, and soil characteristics of the area;

iv. Biological resources and predicted impact to the ecology, including fish, vegetation, and animal habitat;

v. Predicted impact upon area, shore, and hydraulic processes, adjacent properties, and shoreline and water uses; and/or

vi. Analysis of alternative flood protection measures, both non-structural and structural.

b. The City shall require engineered design of flood protection works where such projects may cause interference with normal geohydraulic processes, off-site impacts, or adverse effects to shoreline resources and uses. Non-structural methods of flood

protection shall be preferred over structural solutions when the relocation of existing shoreline development is not feasible.

J. Fish and Wildlife Habitat Conservation Areas

1. Classification

   a. Areas conserved for management and maintenance of fish and wildlife habit, for public access, for public health and well being and for aesthetic value. These areas may include other critical areas such as geologically hazardous areas, stream corridors, wetlands and these critical areas associated buffers. Fish and wildlife habitat areas include:

      i. Land containing priority habitats and species, or lands depicted on current WDFW Priority Habitats and Species Maps, including plant and animal species listed on the threatened or endangered species list.

   b. Naturally occurring ponds under twenty (20) acres and their submerged aquatic beds that provide fish or wildlife habitat. Waters of the State are defined in WAC Title 222 Forest Practice Rules and Regulations. Waters of the State may be classified using the system in WAC 222-16-030. In classifying Waters of the State as fish and wildlife habitat the following may be used:

      i. Species present which are endangered, threatened or sensitive and other species of concern.

      ii. Species present which are sensitive to habitat manipulation.

      iii. Presence and size of riparian ecosystem

      iv. Existing water rights

      v. The intermittent nature of some of the higher classes of Waters of the State

      vi. Lakes, ponds, streams and rivers planted with game fish including those planted under the auspices of a federal, state, local or tribal program and waters which support priority fish species as identified by the Department of Fish and Wildlife.

   c. Standards

      i. It is recognized that alteration of these critical areas may reduce the likelihood that the species will survive or reproduce, therefore activities allowed in fish and wildlife habitat conservation areas shall be consistent with the species located there and all applicable state and federal regulations regarding that species. Development in these areas shall be in accordance with the requirements of the underlying zone, any overlapping critical area classification and shoreline requirements, and requires compliance with Chapter 4, Section VI. Critical Areas within Shoreline Jurisdiction.

K. Wetlands

1. The existence of a wetland and the location of its boundary shall be determined by the applicant through the performance of a field investigation according to the wetland designation criteria in WAC 173-22-035 as revised, and the Washington State Wetlands Rating System for Eastern Washington (Washington Department of Ecology Publication 04-06-15, or as amended), respectively. Qualified professionals (A certified Professional

Wetland Scientist or a non-certified professional wetland scientist with a minimum of five (5) years of experience in the field of wetland science, including experience preparing wetland reports.) shall perform wetland determinations and delineations using the acceptable methodology.

2. A wetland containing features satisfying the criteria of more than one of the following categories shall be classified in the highest applicable category. A wetland can be classified into more than one category when distinct areas that clearly meet the criteria of separate categories exist.

3. Wetland rating categories shall be applied as the wetland exists at the time of adoption of this Title or as it exists at the time of an associated permit application. Wetland rating categories shall not change due to illegal modifications. Wetlands in the City of Medical Lake and its UGA shall be classified into the following categories according to the Washington State Wetlands Rating System for Eastern Washington (Washington Department of Ecology Publication 04-06-15, or as amended):.

   a. *Category I:* 1) those identified by the Washington State Natural Heritage Program/DNR as high quality, relatively undisturbed wetlands, or wetlands that support state Threatened or Endangered plant species; 2) Alkali wetlands; 3) bogs; 4) mature and old-growth forested wetlands over ¼ acre in size dominated by slow-growing native trees; 5) forested wetlands with stands of Aspens; or 6) wetlands that perform many functions very well. Category I wetlands represent a unique or rare wetland type, are more sensitive to disturbance than most wetlands, are relatively undisturbed and contain more ecological attributes that are impossible to replace within a human lifetime, or provide a very high level of functions.

   b. *Category II:* 1) forested wetlands in the channel migration zone of rivers; 2) mature forested wetlands containing fast growing trees; 3) vernal pools present within a mosaic of other wetlands; 4) wetlands with a moderately high level of functions. These wetlands are difficult, though not impossible, to replace, and provide high levels of some functions. These wetlands occur more commonly than Category I wetlands, but still need a high level of protection.

   c. *Category III:* 1) vernal pools that are isolated; or 2) wetlands with a moderate level of functions. Generally, wetlands in this category have been disturbed in some way, and are often smaller, less diverse and/or more isolated in the landscape than Category II wetlands. They may not need as much protection as Category I and Category II wetlands.

   d. *Category IV:* wetlands have the lowest level of functions and are often heavily disturbed. These are wetlands that should be replaceable, and in some cases may be improved. However, experience has shown that replacement cannot be guaranteed in any specific case. These wetlands do provide some important functions and should be protected to some degree.

4. Development near wetlands shall observe the following setbacks from the edge of the wetland. No development or activity shall occur within the required setbacks unless the applicant can demonstrate that the proposed use or activity will not degrade the functions and values of the wetland or other critical areas according to the evaluation criteria from below. In no case shall any development or activity be permitted closer to the edge of the wetland than within three-quarters of the required setback.

Wetland Category	Setback
Category I Wetland	250 feet
Category II Wetland	200 feet
Category III Wetland	150 feet
Category IV Wetland	50 feet

5. Buffer zones may be increased on a case-by-case basis and based upon the most current, accurate, and complete scientific and technical information available. If at least one of the following applies:
   a. A larger buffer is necessary to maintain viable populations of existing species, or
   b. The wetlands are used by species proposed or listed by the federal government or the state as endangered, threatened, rare, sensitive or being monitored as habitat for those species or has unusual nesting or resting sites, or
   c. The adjacent land is susceptible to severe erosion and erosion control measures will not effectively prevent adverse wetland impacts, or
   d. The adjacent land has minimal vegetative cover or slopes greater that 25%.
6. Buffer zones may be decreased to no less than 25% of the stated buffer, but no less than twenty-five feet (25') on a case-by-case basis and based upon the most current, accurate, and complete scientific and technical information available , if all of the following apply:
   a. The critical area report provides a sound rationale for a reduced buffer, and
   b. The existing buffer area is well-vegetated with native species and has less than 10% slopes, and
   c. No direct or indirect, short-term or long-term adverse impact to the wetland will result from the proposed activity.
7. Wetland buffer areas may be used for conservation and restoration activities, passive recreation (including unpaved trails less than 4 feet in width, wildlife viewing structures and fishing access areas) and stormwater management facilities.
8. If activities result in the loss or degradation of a regulated wetland or buffer, a mitigation or enhancement plan prepared by a qualified expert shall be submitted for review and approval. Any mitigation or replacement wetland shall follow the recommended minimum guidelines specified by the Department of Ecology; Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans--Version 1, (Ecology Publication #06-06-011b or as revised), and Wetlands In Washington State – Volume 2: Guidance for Protecting Wetlands (Ecology Publication #05-06-008 or as revised).
   a. Compensatory mitigation standards
      i. Mitigation shall achieve wetland functions equivalent to or greater than those that existed in the wetland prior to mitigation.
      ii. When possible, mitigation shall be on-site and sufficient to maintain the functions and values of the wetland and buffer areas. If on-site mitigation is not feasible, then the applicant shall demonstrate that the site is the nearest

that can reasonably achieve the goals of mitigation with high likelihood of success.

iii. Applicants shall demonstrate sufficient scientific expertise, supervisory capability, and financial resources to complete and monitor any proposed or required wetland mitigation project.

iv. Mitigation actions that require compensation by restoration of a former wetland, enhancement of a degraded wetland, or creation of new wetlands shall occur in the following order of preference:

(I) Restoring a former wetland or creating a new wetland on the site of the project;

(II) Restoring a former wetland or creating a new wetland in the same sub-basin as the project site;

(III) Creating wetlands from disturbed upland sites outside of the subbasin;

(IV) Enhancing degraded wetlands;

(V) Preserving high quality wetlands that are under imminent threat.

9. Wetland Mitigation Ratios. Preferences for mitigation types and location should be consistent with Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans--Version 1, (Ecology Publication #06-06-011b, Olympia, WA, March 2006 or as revised, and Wetlands In Washington State – Volume 2: Guidance for Protecting Wetlands (Ecology Publication #05-06-008 or as revised).

a. The size of a compensatory mitigation project shall be greater than the size of the affected wetland per ratios found in Appendix 8D of Wetlands In Washington State – Volume 2: Guidance for Protecting Wetlands (Ecology Publication #05-06-008 or as revised).

b. When impacts to wetland critical area buffers are proposed they must be mitigated using a 1:1 area ratio.

L. Geologically Hazardous Areas

1. Classification

a. Geologically hazardous areas include areas susceptible to erosion, sliding, earthquake or other geological events and include erosion hazard areas, landslide hazard areas, slopes and seismic hazard areas.

b. Geologically hazardous areas (Areas that because of their susceptibility to erosion, sliding, earthquake or other geological events are no suitable to the siting of commercial, residential or industrial development consistent with public health or safety concerns) shall be classified based upon landslide history and the presence of unstable soils, steep slopes, and high erosion potential, seismic and volcanic hazards. Areas in this category are a potential threat to public health, safety and welfare when construction or incompatible uses are allowed. Some potential risk due to construction in geologically hazardous areas can be reduced through structural engineering design. Construction in geologically hazardous areas should be avoided when potential risk to public health, safety and welfare cannot be reduced to a level of risk comparable to the level of risk if the site were stable.

c. In determining the significance of the geologically hazardous area, the following criteria may be used:

    i. Potential economic, health and safety impacts related to construction in these areas.

    ii. Soil type, slope, vegetation cover and climate of the area.

    iii. Available documentation of history of soil movement, the presence of mass wastage, debris flows or deposition of stream-transported sediments.

d. Classification and rating may be based upon the risk to development in geologically hazardous areas.

e. Erosion hazard areas shall be as defined by the U.S. Department of Agriculture Soil Conservation Survey and/or the U.S. Geological Survey. The following classes are high erosion hazard areas.

    i. Class 3, Class U (unstable) includes severe erosion hazards and rapid surface runoff areas.

    ii. Class 4, Class UOS (unstable old slides) includes areas having severe limitations due to slope.

    iii. Class %, Class URS (unstable recent slides).

f. Landslide hazard areas shall include areas subject to risk of landslide based on a combination of geologic, topographic and hydrologic factors. Landslide areas include the following:

    i. Any area characterized by slopes greater than fifteen percent (15%), impermeable soils (typically silt and clay) frequently inter-bedded with permeable granular soils (predominantly sand and gravel) or impermeable soils overlain with permeable oils, and springs of groundwater seepage.

    ii. Any area which has exhibited movement during the Holocene epoch (from 10,000 years ago to present) or which is underlain by mass wastage debris of that epoch.

    iii. Any area potentially unstable due to rapid stream incision, stream bank erosion or undercutting by wave action.

    iv. Any area located on an alluvial fan presently subject to or potentially subject to inundation by debris flows or deposition of stream-transported sediments.

    v. Any areas with a slope of forty percent (40%) or greater and with a vertical relief of ten feet (10') or more feet except areas composed of consolidated rock.

    vi. Any areas with slopes defined by the U.S. Department of Agriculture Soil Conservation Survey as having a severe limitation for building site development.

g. Slopes:

    i. Moderate slopes shall include any slope greater than or equal to fifteen percent (15%) and less than forty percent (40%)

    ii. Steep slopes shall include any slope greater than or equal to 40%.

h. Seismic hazard areas shall include areas subject to severe risk of earthquake damage as a result of seismic-induced settlement, shaking, slope failure or soil liquefaction. These conditions occur in areas underlain by low density soils lacking cohesion, usually in association with a shallow groundwater table.

2. Standards

a. Erosion Hazards Areas, an Applicant shall submit an Erosion Control Plan prior to approval of proposal.

i. All authorized clearing for roads, utilities, etc. shall be limited to the minimum necessary to accomplish engineering design. Alterations of erosion hazard sites shall meet the following requirements:

(I) Clearing, grading or filling of sloped sites containing erosion hazard areas shall be limited to the period between April 1st and October 1st.

(II) All clearing shall be marked in the field and inspected and approved prior to alteration of the site.

(III) The face of cut and fill on slopes shall be prepared and maintained to control against erosion.

b. Landslide Hazard Areas. All development proposals on sites containing landslide hazards shall comply with the following requirements:

i. Landslide hazard areas located on slopes forty percent (40%) or greater shall be altered only as allowed under this Section.

ii. A minimum buffer of fifty feet (50') shall be provided from the edge of all landslide hazard areas regardless of percentage of slope.

iii. Building Setback Lines, All buildings are required to setback fifteen feet (15') from the buffer or landslide hazard area.

3. Slopes.

a. Grading, vegetation removal and other site disturbances on slopes can lead to erosion or landslides. If the amount of the slope disturbed is decreased, then the risk of erosion and landslides decreases. The risk is also less on slopes that are less steep. Therefore, all site disturbances on moderate and steep slopes shall be reviewed and certain standards are required to be met depending on the percentage of slope.

i. The following table sets forth the maximum slope disturbance allowed:

Slope	Disturbance Allowed
1 – 14%	100%
15 – 24%	60%
25 – 39%	45%
40% or greater	30%

ii. Location of development on moderate and steep slopes shall meet the following standards:

(I) Development must be located to minimize disturbance and removal of vegetation and also to protect most sensitive areas and retain open space.

(II) Structures must be clustered where possible to reduce disturbance and maintain natural topographic character.

(III) Structures should conform to natural contour of slope and foundations should be tiered where possible to conform to existing topography of site.

iii. Design of development on moderate and steep slopes shall meet the following standards:

(I) All development proposals shall be designed to minimize the footprint of buildings and other disturbed areas, common access drives and utility corridors are encouraged.

(II) All proposed development on steep slopes shall be avoided if possible. Alterations are allowed in only the following instances provided that the standards in this Section can be met.

a) Where it has been demonstrated through a soils report prepared by a geotechnical engineer that no adverse impact will result from the proposal.

b) Where approved surface water conveyance will result in minimum slope and vegetation disturbance.

c) The construction of approved public or private trails provided they are constructed of material, which will not contribute to surface water run-off.

d) The construction of public private utility corridors provided it has been demonstrated that such alterations will not increase landslide or erosion risks.

e) Trimming and limbing of vegetation for the creation and maintenance of view corridors provided that the soils are not disturbed and activity will not increase risks of landslide or erosion.

f) In all other cases, no disturbance is allowed on a steep slope and a minimum fifteen feet (15') vegetation buffer shall be established from the top, toe and along all sides of the slope. The buffer may be extended beyond these limits on a case-by-case basis to mitigate landslide and erosion hazards.

4. Seismic Hazard Areas. Standards for development in seismic hazard areas shall be in accordance with the Uniform Building Code (UBC) Chapter 23.

Chapter 5 Medical Lake Jurisdictional Shorelines and Restoration Techniques

Ecosystem Wide Summary
Location
Geology, Geomorphology & Topography
Climate
Soils
Vegetations
Land Cover and Land Uses
Land Quantity and Quality
Riparian & Wetland Habitat
Management Measures to Protect Ecosystems
Management Measures to Restore Ecosystems

I. Ecosystem - Wide Summary

A. Location

The City of Medical Lake is located in northeastern Washington about 12 miles southwest of Spokane. This area includes three major lakes, Medical Lake, West Medical Lake and Silver Lake. The watershed surrounding the internally drained or "closed basin" lakes is little larger than the actual lakes.

B. Geology, Geomorphology and Topography

The bedrock of the Medical lake Watershed consists of Precambrian metasedimentary rocks intruded by early Cenozonic plutonic rocks. Miocene Columbia River Basalts overlie most of the older rocks. A series of west-northwest trending faults cut the bedrock at Clear Lake.

Loess was deposited atop the bedrock surfaces during the Pleistocene. Subsequent Missoula Floods eroded much of this loess cover and part of the Miocene Columbia River Basalts to expose underlying older bedrock. It was the Missoula flooding that likely created the north trending basins of the four lakes and subsequently deposited glaciofluvial gravels and sands. Late Pleistocene and Holocene loess was deposited atop these surfaces. Recent alluvium has been deposited in low areas of Clear and Silver Lakes. Groundwater occurs in limited quantities in this unconfined alluvium aquifer, which consists primarily of sand and gravel with high porosity and permeability. The water-bearing thickness of the aquifer, while accessible through shallow wells, is usually less than 3 meters, with a wide fluctuating water table that responds rapidly to climatic fluctuations. Basalts are the most productive aquifer in the region, hydraulically connected to the lakes in the region, with groundwater generally moving northeastward to the West Plains area, dependent on topographic control.

The Medical Lake area lies in a low relief setting with elevations ranging from 2,949 feet at the top of Booth Hill to 2,340 feet at the surface of Clear Lake. The higher elevations (i.e. Fancher Butte and Booth Hill) at the western margin of the watershed are composed of Precambrian metasedimentary rocks that survived the Missoula Floods. Likewise, the intrusive rocks

composing Olsen Hill on the north watershed margin, Riddle Hill on the eastern margin and the upland separating Medical Lake and West Medical Lake also survived the Missoula Floods after the overlying loess and basalts were stripped off. Elevations generally decline from northeast to southwest reflecting the Missoula Flood pathway. Drainage is a poorly developed centripetal pattern and drainage density is low. Drainage characteristics are a result of the internally drained nature of the lakes basins and the Missoula Flood erosional origins of the lake basins.

C. Climate

The contemporary climate of the Medical Lake watershed is influenced by the mid-latitude, continental location of the area. Mean monthly temperatures at Spokane International Airport, six (6) miles northeast of Medical Lake, over the 1971-2000 period normally ranged from 28oF in January to 69oF in July with the mean annual temperature at 470F. The peak-growing season extends from April to October. Mean annual precipitation was approximately 17 inches during the same period with 63% of the precipitation falling in October through March. The cool season timing of the precipitation, combined with site latitude, continental location, and elevation, results in much of this precipitation falling as snow.

D. Soils

Soils in the Medical Lake area vary as a result of topography and parent material. Upland soils are typically deep and well-drained mollisoils (Uhlig, Reardan, Dragoon, Athena and Bong series) and entisols (Lance series) formed in glaciofluvial deposits, loess, volcanic ash, residuum and colluvium. Soils of the low lands surrounding the lakes range from deep, well drained mollisols in glaciofluvial deposits and loess (Hesseltine and Cheney series) to deep poorly drained mollisols in volcanic ash and loess (Cocolalla series). Many of these soils are highly erodible, creating the only notable geohazard in the region.

E. Vegetation

The Medical Lake area lies in the forest-grassland ecotone. A Ponderosa Pine-Douglas Fir eastside forest interspersed with bunchgrass "prairies" is the native vegetation of the area. Wheat is currently grown on most of the prairies while the wooded area is increasingly used for home sites. Common aquatic species of the lake basins include northern water milfoil, reed canary grass, sago pondweed, curly leaf pondweed, slender pondweed, water buttercup, bulrush, broad-leaved cattail, coontail and duckweed.

F. Land Cover and Land Uses

1. *Medical Lake.* Medical Lake is bound by the City of Medical Lake on its northern and eastern shores. Residences are the most common land use along this portion of the shoreline. The south and west shores are largely undeveloped other than the walking/biking trail that circles the lake. Eastern State Hospital sits atop the hill separating West Medical Lake from Medical Lake. Medical Lake is a popular lake for fishing and swimming, and is also extensively used by waterfowl.
2. *Silver Lake.* Silver Lake is bordered by residences on the northwest and northeast sides. The north and south ends are largely undeveloped. Silver Lake supports multiple recreational activities and well developed east and west shorelines of residential homes and resorts.
3. *West Medical Lake.* West Medical Lake has little human development along its shorelines. A picnic area and undeveloped area lies along the eastern shore while a pump house sits on the north end. Wheat fields lie near the western shore. A boat launch/fishing dock/boat rental occupies the south shore. West Medical Lake is a popular fishing lake.

G. Water Quantity and Quality

1. *Medical Lake*. Medical Lake has over 3.1 miles of shoreline, with an area of 160 acres and an average depth of 32 feet. No visible surface inlets or outlets are shown on the Medical Lake, WA 7.5' quadrangle. Measurements since 1924 suggest that Medical Lake is naturally euotrophic. High fecal coliform bacteria concentrations at the city park on the north end of the lake are likely linked to the large goose population in the area. Alum was used to treat the high nutrient loads in 1977 and an aerator was installed to increase oxygen content in the hypolimion.
2. *Silver Lake.* Silver Lake has over 8.7 miles of shoreline, with an area of 486 acres and an average depth of 30 feet. No surface inlets or outlets are shown on the Medical Lake, WA 7.5' quadrangle. Silver Lake is a mesotropic lake with higher than normal phosperous loads. Silver Lake has several resorts and public access on the north shore, though only 5% of the residential development is sewered, with septic system failures and a storm sewer system from the City of Medical Lake likely adding pollutants to the lake.
3. *West Medical Lake*. West Medical Lake, forming the western boundary of the city, is within the Upper Crab watershed, and includes approximately 4 miles of shoreline, with an area of 220 acres and an average depth of 22 feet. One intermittent stream drains into West Medical Lake from the uplands south of Fancher Butte; otherwise, no other streams enter or exit on the Medical Lake, WA 7.5' quadrangle. Most of the inflow to West Medical Lake comes from the wastewater treatment plant. In wet years, this lake overflows into Clear Lake. West Medical lake receives treated wastewater from the city's treatment plant thus it is very high in nutrients. Despite the high nutrient load, water is surprising clear. Previous researchers have identified high fecal coliform bacteria and high phosperous loads. West Medical Lake is considered to be hypereutrophic.

H. Riparian and Wetland Habitat

West Medical Lake is a popular fishing lake and the zooplankton population appears to be healthy and supportive of a good sport fishery. The lake is stocked annually with rainbow trout, and was treated in 2000 to remove expanding gold fish and pumpkinseed populations. Silver Lake is also stocked with rainbow trout, though fish populations are limited by a large tench population. Due to the lack of surface inflows and outflows, none of the three lakes support anadromous fish.

Residential development activities along both Medical Lake and Silver Lake may affect the quality of freshwater habitat through removal of upland and wetland vegetation and increasing silt, organic debris and other stormwater contaminants that enter the natural drainage system. The greatest risk to the habitat is the conversion of the shoreline to residential uses, including the removal of riparian vegetation. In addition, stabilization methods such as shore protection structures (i.e. bulkheads, docks and boat ramps) often associated with residential development disconnect the critical ecological linkages between the water and the land environments.

Due to the geological history and resulting lack of define drainages, the region surrounding the lakes is made up of small lakes and ponds as well as wetlands. Many of these lakes and wetlands are classified as priority wetland habitats, especially for waterfowl concentrations especially immediately south of the City of Medical Lake.

II. Management Measures to Protect Ecosystem-Wide Processes

A. Hydrology Issues:

1. Permits for new development and setback legislation can be used to mitigate stormwater flows. ☑
2. New developments should be required to use Stormwater Best Management Practices.☑

B. Water Quality Issues:

1. Wetland and riparian vegetation within SMP jurisdiction can be protected to mitigate effects of upland sources.☑
2. Public education of fertilizer and pesticide impacts may be useful, especially for shoreline residents.
3. Slow run-off from construction sites with proper erosion controls.☑
4. Control run-off using stormwater control best management practices
5. Avoid development on hydric or highly erodible soils.☑
6. Work with Spokane County for coordination of shoreline and water quality management plans

C. Riparian Habitat Issues:

1. New development can be regulated to ensure protection or riparian habitat.☑
2. Use zoning and shoreline regulations to prevent encroachment of riparian and wetland habitat by new development within the SMP jurisdiction, including the use of buffers and adequate shoreline setbacks for new construction.☑
3. Protect wetland and riparian vegetation within SMP jurisdiction to mitigate effects of upland non-point pollution sources, by maintaining natural shoreline and aquatic plants as well as preventing their removal.☑
4. Prevent protection of shorelines with hard structures.
5. Work with Spokane County to control development on other portions of West Medical Lake and Silver Lake shorelines.

III. Management Measures to Restore Ecosystem-Wide Processes

A. Water Quality Issues:

1. Effects on lakes from upland developments can be addressed through integration with GMA planning.☑
2. Direct storm run-off away from the lakes or install containment ponds.☑
3. Highlight locations for most effective stormwater retrofitting.
4. Identify areas where there are existing failing septic systems and direct efforts to get homes hooked up to city sewer.
5. Reduce fertilizer use on agricultural, recreational, and residential land near the shoreline.☑

B. Riparian Habitat Issues:

1. Implement a program to protect lakeside terrestrial and emergent vegetation.
2. Retrofit shore protection structures with bioengineering approaches.
3. Restore riparian vegetation and function.
4. Maintain vegetative buffer along shoreline zones to help limit non-point pollution sources.
5. Maintain and enhance the biological and physical functions and values of wetlands.
6. Provide for reasonable buffers around wetlands in order to provide a local habitat for wetland plant and animal communities and to reduce or minimize intrusions from humans and domestic animals.☑
7. Stewardship strategies should be implemented for the long-term management of wetlands.☑
8. Maintain the natural value of wetlands to provide priority habitat and control and filter storm water run-off.☑

Chapter 6 Reach Specific Approaches for Restoration & Protection

Reach Inventory and Analysis

Reach 1
Reach 2
Reach 3
Reach 4
Reach 5
Reach 6
Reach 7
Reach 8

I. Reach Inventory and Analysis

A. Shoreline Jurisdiction Reach Breaks

Several sources were used to map the shoreline jurisdiction as shown on Figure 1. The City of Medical Lake's Urban Growth Area boundaries were mapped by the Spokane County Geographic Informational Systems (GIS) Department with input from the city. Each lake's Ordinary High Water Mark (OHWM) was digitized from a 2003, 2-meter National Agricultural Imagery Project color satellite imagery was received from Spokane County.

Associated wetland locations were mapped based on National Wetland Inventory Information. To characterize distinct reaches of the city's jurisdictional shorelines, the shorelines for the three lakes were categorized into eight preliminary reaches based on biophysical characteristics as well as general land uses.

1. REACH – 1 (West Medical Lake)

a. Environmental Designation: NATURAL

i. Restoration and Protection Policies

There should be little or no development along this shoreline reach and no shoreline modifications in wetland and riparian areas. Enhancing and protecting this critical wildlife habitat will preserve priority critical areas such as nesting sites and foraging areas. The riparian vegetation along this reach also helps buffer the lake from non-point sources of pollution from the upland agricultural land uses.

b. Inventory and Analysis:

i. Geology, Soils and Hazards

The surface geology of Reach 1 entirely consists of Basalt flows. The soils within the city's jurisdiction are mainly Hesseltine stony silt loam (61.3%) and provide moderate permeability. Approximately 3.4% of the area has slopes greater than 15%. The flood zone covers approximately 0.7% of this reach.

ii. Natural Vegetation

Upland – The native vegetation of the area consists primarily of Ponderosa Pine and Douglas Fir eastside forest interspersed with bunchgrass "prairies" dominated by Fescue. The upland area of the jurisdiction is entirely undeveloped, though adjacent wheat fields are approximately 200 meters from the shoreline.

iii. Riparian

Emergent vegetation in the littoral zone is primarily restricted to narrow corridors less than 2 meters wide alone the shoreline comprising 53.1% of the reach. Additional stretches of emergent vegetation 5 – 10 meters wide along the shoreline make up another 17.9% of the reach, while 27.2% of the reach has small isolated patches of emergent vegetation. The emergent species are dominated bulrush and broad-leaved cattail. The submergent species are dominated by coontail, sago pondweed, northern water milfoil, curly leaf pondweed and duckweed. In addition, some large woody debris, including stumps, is found along this reach.

iv. Wetlands

Wetlands make up 34.4% of the reach area, dominated by the palustrine, emergent, persistent, seasonally flooded class.

v. Wildlife

Reach 1 provides habitat for numerous terrestrial species, including 76 birds, 28 small mammals and 9 amphibians or reptiles. Forty-nine percent (49%) of the jurisdiction is classified as a priority habitat for waterfowl concentrations, while another 10.1% is classified as priority wetland habitat (WDFW, 2002).

vi. Land Use

One hundred percent (100%) of the jurisdictional lands along Reach 1are classified as public/community. There are no parks located along Reach 1. A pump station serving Lakeland Village is located along this reach.

vii. Transportation Infrastructure

There are no roadways or railroads within the reach

viii. Shoreline Protection Structures and Docks

There is no shoreline protection and there are no docks along Reach 1.

ix. Zoning

Current zoning within the SMP jurisdiction of Reach 1 is predominantly institutional (90.4%) while 9.6% remains unclassified. The existing environmental designation for Reach 1 is natural.

x. Cultural Resources

There are no Archeological Site Form records of cultural sites within the SMP jurisdiction of Reach 1 on file with the Washington State Historic Preservation Office.

xi. DOE Facilities and 303(d) Listings

There are no DOE facilities along this reach. West Medical Lake has been listed as a 303(d) lake for ammonia and fecal coliform issues.

xii. Ecological Functions

Ecological functions on Reach 1 are relatively intact. The shoreline within this reach is primarily natural and undeveloped, providing potential habitat for a wide variety of wildlife and fish

species. The riparian vegetation is diverse and well established, providing bank stability and sources of large woody debris.

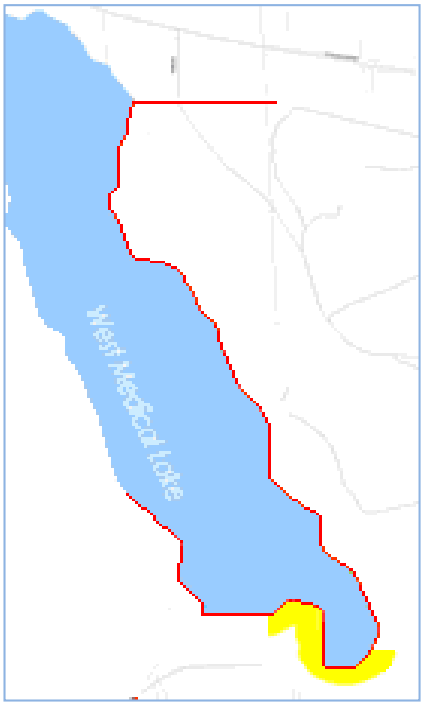
2. REACH – 2 (West Medical Lake)

a. Environmental Designation: URBAN CONSERVANCY

i. Restoration and Protection Policies

1) Other than the public and private boat ramps no further shoreline hardening should be permitted. This will minimize adverse effects on the shoreline. Through removing existing structures and preventing more shoreline protection, less damage would occur to the natural shoreline processes. The removed structures could possibly be replaced with bioengineering approaches, particularly on the public boat launch. This could coincide with encouragement of planting native vegetation riparian buffers and limiting clearing and disturbance on both the publicly and privately owned recreational properties.

2) Stormwater diversions or containment ponds could be used to protect the near shore habitat from non-point pollution runoff from the neighboring highway.



b. Inventory and Analysis:

i. Geology, Soils and Hazards

The surface geology of Reach 2 entirely consists of basalt flows. The soils within the SMP jurisdiction are mainly Hesseltine stony silt loams (71.3%). Approximately 3.9% of the area has slopes greater than 15%. The flood zone does not affect this reach.

ii. Natural Vegetation

Upland – The native vegetation of the area primarily consists of Ponderosa Pines and Douglas Fir eastside forest interspersed with bunchgrass, "prairies", dominated by Fescue wheatgrass. The natural vegetation has been heavily modified by the recreational land uses found within the jurisdiction.

iii. Riparian

Emergent vegetation in the littoral zone is primarily restricted to narrow corridors approximately 2 meters wide along the shoreline, comprising 17.9% of the reach. Additional stretches of emergent vegetation less than 2 meters wide along the shoreline make up another 13.9% of the reach. The emergent species are dominated bulrush. The submergent species are dominated by coontail, sago pondweed, northern water milfoil, curly leaf pondweed and duckweed.

iv. Wetlands

Wetlands are found in 11.3% of the SMP jurisdiction dominated by the palustrine, emergent, persistent, seasonally flooded class.

v. Wildlife

Reach 2 may provide potential habitat for numerous terrestrial species. In addition 83.9% of the jurisdiction is classified as a priority wetland habitat.

vi. Land Use

Approximately ninety one percent (90.9%) of the jurisdiction lands along Reach 2 are classified as public/community and 9.1% remains unclassified. There are no public parks located along this reach. Impervious surfaces (boat ramp) comprise 32.2% of the area in Reach 2.

vii. Transportation Infrastructure

Roadways occupy 0.2 km of SMP jurisdiction land in Reach 2.

viii. Shoreline Protection Structures and Docks

Approximately 8.3% of the shoreline along the Reach 2 is protected by shoreline protection structures. In addition, 2 docks and 2 boat launches (one private and one public) are located along this reach.

ix. Zoning

Current zoning within the SMP jurisdiction of Reach 2 is principally Institutional (90.9) while 9.1% remains unclassified. Currently the existing environmental designation for Reach 2 is classified entirely as Urban Conservancy.

x. Cultural Resources

There are no Archeological Site Form records of cultural sites within the SMP jurisdiction of Reach 2 on file with the Washington State Historic Preservation Office.

xi. DOE Facilities and 303(d) Listings

There are no DOE facilities along this reach. West Medical Lake has been listed as a 303(d) lake for ammonia and fecal coliform issues.

xii. Ecological Function

Ecological functions on Reach 2 have been impaired by heavy recreational use stemming from a public boat launch and private boat launch/fishing dock. The riparian vegetation along this shoreline has been largely modified and removed, while approximately 8% of the shoreline is also hardened with shoreline protection. The highway is another potential source of non-point pollution.

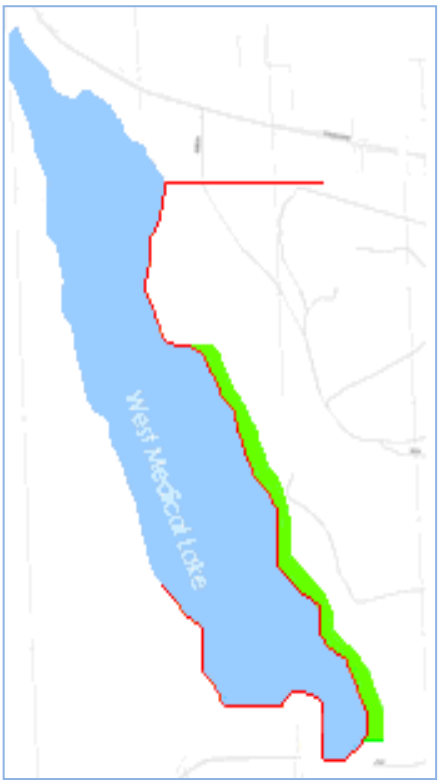
xiii. Protection and Restoration

See (A) and (B) under Reach 2, restoration and protection policies, above.

3. REACH – 3 (West Medical Lake)

a. Environmental Designation: NATURAL

i. Restoration and Protection Policies



1) No development or shoreline modifications should be permitted in wetland and riparian areas, which offer opportunities for enhancement and protection, including conservation of critical wildlife habitat such as nesting sites and foraging areas. Critical habitat can be preserved by fostering better stewardship of critical areas located on state land, enforcement of the city's critical area ordinance and educational signage at the public boat ramp and public dock for the fishing public to read.
2) Work with Eastern State Hospital to restore a native riparian vegetation buffer along its shoreline picnic area, and inquire as to Eastern's shoreline plan and who is the responsible lead agency.
3) Work with Eastern State Hospital to clean up the old dump area.

b. Inventory and Analysis:

i. Geology, Soils and Hazards

The geology of Reach 3 consists of basalt flows (72.2%) and granodiorite (27.8%). The soils within the SMP jurisdiction are mainly Bong coarse sandy loam (63.8%). Approximately 23.1% of the area has slopes greater than 15%. The flood zone covers approximately 7.7% of this reach.

ii. Natural Vegetation

Upland – The native vegetation of the area primarily consists of Ponderosa Pine and Douglas Fir eastside forest interspersed with bunchgrass "prairies" dominated by Fescue wheatgrass. The natural vegetation is largely unmodified within the jurisdiction, with the exception of a small lawn area associated with a private picnic area belonging to Eastern State Hospital and Lakeland Village.

iii. Riparian

Emergent vegetation in the littoral zone is primarily found in sections of emergent vegetation over 10 meters wide, comprising 20.8% of the reach. Other emergent vegetation is restricted to small, isolated patches of emergent vegetation, making up another 16.7% of the reach. The emergent species are dominated bulrush, broad-leaved cattail, and reed canary grass. The submergent species are dominated by coontail, sago pondweed, northern water milfoil, curly leaf pondweed and duckweed. In addition, extensive large woody debris, including stumps, is found along much of the reach.

iv. Wetlands

Wetlands are found in 1.7% of the SMP jurisdiction, dominated by the palustrine, emergent, persistent, seasonally flooded class.

v. Wildlife

Reach 3 may provide potential habitat for numerous terrestrial species, among these species the Olive-sided Flycatcher, Willow Flycatcher, Townsend's Big-eared Bat, Yuma Myotis and the Columbia Spotted Frog are current species of concern. An Osprey nest is listed as a Natural Heritage site along this reach. In addition, 60.4% of the jurisdiction is classified as a priority wetland habitat.

vi. Land Use

Of the SMP jurisdiction lands along Reach 3, 100% is classified as public/community. A former quarry comprises 4.2% of the area, while a former dump is also located along the shoreline. A pump station and sewage outfall is located along this reach. Eastern State Hospital no longer operates a waste treatment plant. Lift stations at Eastern State Hospital and Lakeland Village lift sewage into the city's collection system and transported to the wastewater treatment plant for treatment. There are no public parks located along this reach, though there is a private picnic area belonging to Eastern State Hospital and Lakeland Village, complete with a small dock.

vii. Transportation Infrastructure

Roadways occupy 0.5 km of SMP jurisdiction land in Reach 3

viii. Shore Protection Structures and Docks

None of the shoreline along Reach 3 is protected by shore protection structures. In addition 1 private dock is located along this reach.

ix. Zoning

Current zoning within the SMP jurisdiction of Reach 3 is classified as Institutional (92.2%) and unclassified (7.8%). The current environmental designation for Reach 3 is natural.

x. Cultural Resources

There are no Archeological Site Form records of cultural sites within the SMP jurisdiction of Reach 3 on file with the Washington State Historic Preservation Office.

xi. DOE Facilities and 303(d) Listing

There are no DOE facilities along this reach. West Medical Lake has been listed as a 303(d) lake for ammonia and fecal coliform issues.

xii. Ecological Functions

Ecological functions on Reach 3 are relatively intact. The shoreline within this reach is primarily natural and undeveloped, providing potential habitat for a wide variety of wildlife and fish species. The riparian vegetation, dominated by extensive wetlands, is diverse and well established, providing bank stability and sources of large woody debris. The natural vegetation is largely unmodified within the jurisdiction, with the exception of a small lawn area associated with a private dock and picnic area. A former dump is located along the shoreline, with debris such as old cans, tires, barrels and car parts spilling into the near shore. The State Department of Ecology should be made aware of this problem and be appointed as the "Lead Agency" for investigating and implementing corrective action to remedy corrective action.

xiii. Protection and Restoration

See (A) (B) and (C) under Reach 3, restoration and protection policies, above.

4. REACH – 4 (West Medical Lake)

a. Environmental Designation: NATURAL

i. Restoration and Protection Policies

1) No development or shoreline modifications in wetland and riparian areas will insure continuing protection, to critical wildlife habitat such as nesting site and foraging areas.

2) Efforts should be made to contact the appropriate state office allowing for the beginning of mutual effort to protect and restore, if necessary, all shorelines abutting state land.

b. Inventory and Analysis:

i. Geology, Soils and Hazards

The surface geology of Reach 4 entirely consists of granodiorite. The soils within the SMP jurisdiction are mainly Dragoon very rocky complex (98.2%). Erodible soils cover 44.5% of the reach. Approximately 3.5% of the area has slopes greater than 15%. The flood zone covers approximately 7.1% of this reach.

ii. Natural Vegetation

Upland – The native vegetation of the area primarily consists of Ponderosa Pine and Douglas Fir eastside forest interspersed with bunchgrass "prairies" dominated by Fescue wheatgrass. The natural vegetation is largely unmodified in the jurisdiction.

iii. Riparian

Emergent aquatic vegetation in the littoral zone is primarily restricted to small, isolated patches of emergent vegetation along a bedrock shoreline, comprising 51.1% of the reach. Another stretch of emergent vegetation over 10 meters wide makes up another 34.6% of the reach shoreline. The emergent species are dominated bulrush and broad-leaved cattail. The submergent species are dominated by coontail, sago pondweed, northern water milfoil, curly leaf pondweed and duckweed.

iv. Wetlands

Wetlands cover approximately 4.9% of Reach 4, dominated by the palustrine, aquatic bed, floating vascular, permanently flooded class.

v. Wildlife

Reach 4 provides important critical habitat for numerous terrestrial species. In addition, 57.5% of the jurisdiction is classified as a priority wetland habitat.

vi. Land Use

One hundred percent (100%) of the land along Reach 4, are classified as public/community. A former rock quarry comprises 2.4% of the area. There are no parks located along this reach.

vii. Transportation Infrastructure

Roadways occupy 0.5 km of SMP jurisdiction land in Reach 4.

viii. Shore Protection Structures and Docks

There are no shore protection structures or docks located along Reach 4.

ix. Zoning

Current zoning within the SMP jurisdiction of Reach 4 is entirely Institutional. The current environmental designation for Reach 4 is Natural.

x. Cultural Resources

There are no Archeological Site Form records of cultural sites within the SMP jurisdiction of Reach 4 on file with the Washington State Historical Preservation Office.

xi. DOE Facilities and 303(d) Listings

There are no DOE facilities along this reach. West Medical Lake has been listed as a 303(d) lake for ammonia and fecal coliform issues.

xii. Ecological Functions

Ecological functions on Reach 4 are relatively intact. The shoreline within this reach is primarily natural and undeveloped, providing potential habitat for a wide variety of wildlife and fish species. The riparian vegetation, including extensive wetlands, is diverse and well established, providing bank stability and sources of large woody debris. The natural vegetation is largely unmodified within the jurisdiction.

xiii. Protection and Restoration

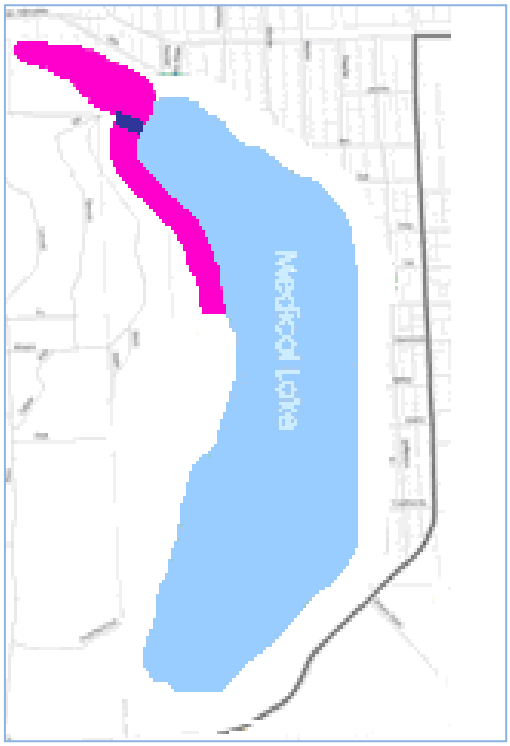
See (A) and (B) under Reach 4, restoration and protection policies, above.

5. REACH-5: (Medical Lake)

a. Environmental Designation: NATURAL (95%) URBAN CONSERVANCY (5%)

i. Restoration and Protection Policies

1) No development and very little shoreline modifications for recreational purposes will be permitted. Wetland and riparian areas south of the picnic area are protected and regulated under the city's critical area ordinance as this section of the reach is considered to be priority wildlife habitat. Enhancement and protection measures that will improve the conservation of critical wildlife habitat such as nesting sites and foraging areas will be encouraged.



2) Work with the City of Medical Lake to restore the native riparian buffer along the shoreline picnic area.

3) "Educational Signage" with regards to good stewardship of wetlands and wildlife habitat and, "Caution Signage" concerning the need to not feed the geese in the lake should be made part of the strategy to protect the shoreline and improve the lakes water quality.

b. Inventory and Analysis

i. Geology, Soils and Hazards

The geology of Reach 5 predominantly consists of granodiorite (77.3%). The soils within the SMP jurisdiction are mainly Dragoon very rocky complex (87.4%). Erodible soils cover 77.5% of the reach. Approximately 28.7% of the area has slopes greater than 15%. The flood zone does not cover this reach.

ii. Natural Vegetation

Upland – The native vegetation of the area primarily consists of Ponderosa Pine and Douglas Fir, eastside forest, interspersed with bunchgrass "prairies" dominated by Fescue wheatgrass. The native vegetation has been modified by recreational use, though it still is largely intact.

iii. Riparian

Emergent vegetation in the littoral zone is primarily restricted to narrow corridors less than 2 meters wide along the shoreline, comprising 53.4% of the reach. The emergent species are dominated bulrush, broad-leaved cattail and ditch-grass. The submergent species are dominated by northern water milfoil, sago pondweed and water-crowfeet. Eurasian water milfoil, an exotic species, has also invaded the lake.

iv. Wetlands

Wetlands are found in 40.6% of the SMP jurisdiction, dominated by the palustrine, emergent, persistent, semi-permanently flooded class.

v. Wildlife

Reach 5 provides critical habitat for numerous terrestrial species. In addition, 15.9% of the jurisdiction is classified as a priority wetland habitat associated with waterfowl concentrations during migration and breeding, Great Blue Heron nesting and foraging, furbearer use and the presence of Tiger Salamanders and Painted Turtles.

vi. Land Use

The percentages of jurisdictional lands along Reach 5 are as follows: 68.3% are classified as public/community, 21% are vacant land, and 1.2% remains unclassified. Approximately 43.1% of the reach is public land including North End Park and portions of the public biking/walking trail, which follows the western shoreline of the lake southward to Waterfront Park. North End Park is a small two-acre park consisting primarily of open space with areas for picnicking and viewing the lake. The trail system, encompassing approximately ten acres, also includes a series of picnic and viewing sites. Impervious surfaces comprise 2.7% of the area in Reach 5.

vii. Transportation Infrastructure

Roadways occupy 0.8 km of SMP jurisdiction land in Reach 5.

viii. Shore Protection Structures and Docks

Approximately 3.6% of the shoreline along Reach 5 is protected by shore protection structures. In addition, one dock is located along this reach.

ix. Zoning

Current zoning within the SMP jurisdiction of Reach 5 is principally Institutional (85.2%) and single-family residential (4.2%), while the rest is unclassified. The existing environmental designation for Reach 5 is Urban Conservancy.

x. Cultural Resources

There are no Archeological Site Form records of cultural sites within the SMP jurisdiction of Reach 5 on file with the Washington State Historic Preservation Office.

xi. DOE Facilities and 303(d) Listings

There are no DOE facilities along this reach. Medical Lake has been listed as a 303(d) lake for total phosphorus issues.

xii. Ecological Functions

Ecological functions on Reach 5 are relatively intact. The shoreline within this reach is primarily natural and undeveloped, providing critical habitat for a wide variety of wildlife and fish species. The riparian vegetation, dominated by a riparian wetland, is diverse and well established, providing much needed bank stability in an area of erodible soils, as well as sources of large woody debris. The natural vegetation is largely unmodified with the exception of a small lawn area associated with the public park (North End Park) and picnic area. The highway is another potential source of non-point pollution.

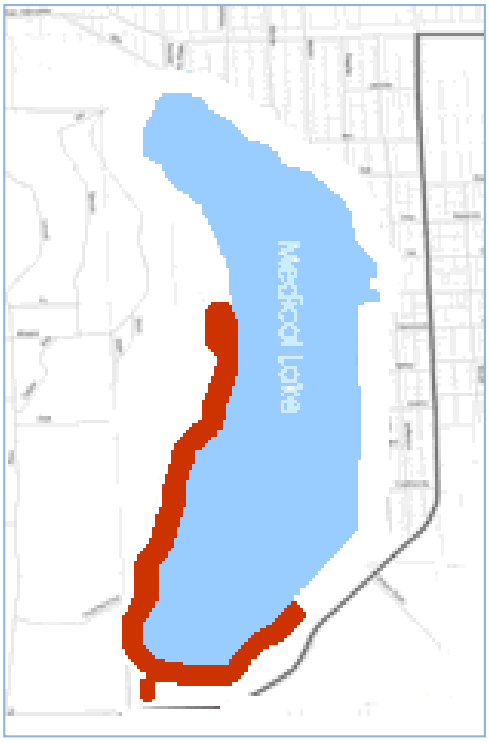
xiii. Protection and Restoration

See (A) (B) and (C) under Reach 5, restoration and protection policies, above.

6. REACH-6: (Medical Lake)

a. Environmental Designation: NATURAL (15%) URBAN CONSERVANCY (75%)

i. Restoration and Protection Policies



1) No development is permitted, as the majority of the land in this reach is recreational or open space. Shoreline recreational modifications have seriously degraded a section of the shoreline and the cliff area on the eastern side. Opportunities for restoration and protection in the southern and southeastern sections of the reach are plentiful. The city should form a private/public partnership with civic organizations to restore and improve the shoreline's ecological functions in heavily public access areas.

2) Civic organizations and the public should work with the City of Medical Lake to restore the ecology of the shoreline along the eastern cliff area, and the section of the reach between the public boat ramp, Waterfront Park beach and shoreline picnic area.

3) The City of Medical Lake should establish a new section of the city's trail system through the degraded area of the shoreline near the public boat launch where numerous "spider paths" have been formed. This would restore a badly tarnished area and allow for the public using the trail a picturesque view of the lake. This would also reduce the trampling of native vegetation by this extensive network of informal trails and provide a deterrent to the increasing amount of trash and litter scattered along the shoreline.

4) Stormwater diversions or contaminate ponds could be used to protect the near shore habitat from non-point pollution run-off from the neighboring highway.

b. Inventory and Analysis

i. Geology, Soils and Hazards

The geology for Reach 6 consists of granodiorite (64%) and basalt flows (36%). The soils within the SMP jurisdiction are mainly Bong coarse sandy loam (51.6%). Approximately 36.4% of the area has slopes greater than 15%. The flood zone does not cover this reach.

ii. Natural Vegetation

Upland – The native vegetation of the area primarily consists of Ponderosa Pine and Douglas Fir, eastside forest interspersed with bunchgrass "prairies" dominated by Fescue wheatgrass. The natural vegetation has been heavily modified by recreational facilities at the south end of the lake, though largely intact throughout most of the reach.

iii. Riparian

Emergent vegetation in the littoral zone is primarily found in corridors between 2.5 meters wide along the shoreline, comprising 20% of the reach. Additional stretches of emergent vegetation less than 2 meters wide along the shoreline make up another 6.7% of the reach, while 5.9% of the reach has small, isolated patches of emergent vegetation along bedrock shorelines. The emergent species are dominated bulrush and broad-leaved cattail. The submergent species are dominated by northern water milfoil, sago pondweed and water crowfeet. Eurasian watermilfoil, an exotic species, has also invaded the lake. In addition, large woody debris is found along much of the reach.

iv. Wetlands

Wetlands are found in 6.3% of the SMP jurisdiction, dominated by the palustrine, emergent, persistent, seasonally flooded class. In addition 26.7% of the jurisdiction is classified as priority wetland habitat, associated with waterfowl concentrations during migration and breeding, Great Blue Heron nesting and foraging, furbearer use and presence of Tiger Salamander and Painted Turtles.

v. Wildlife

The southwestern and westerly sections of Reach 6 may provide important critical wildlife habitat for numerous terrestrial species. Among these species the Olive-sided Flycatcher, Willow Flycatcher, Townsend's Big-eared Bat, Yuma Myotis and the Columbia Spotted Frog are current species of concern.

vi. Land Use

One hundred percent of the SMP jurisdiction lands along Reach 6, is public/community. Approximately 79.1% of this reach is public land, including Waterfront Park and portions of the public biking/walking trail, which follows the western shoreline of the lake northward to North End Park. The Waterfront Park facilities, which encompass 45 acres and over one mile of shoreline, include picnic areas, a swimming beach, play fields and an unimproved boat launch. The trail system encompassing approximately ten acres also includes a series of picnic and viewing sites. Impervious surfaces comprise 3.1% of the area of Reach 6.

vii. Transportation Infrastructure

Roadways occupy 1.0 km of SMP jurisdiction land in Reach 6.

viii. Shore Protection Structures and Docks

None of the shoreline along Reach 6 is protected by shore protection structures.

ix. Zoning

Current zoning within the SMP jurisdiction of Reach 6 is predominately Institutional (80.9%) with 19.1% recreational or open space. The existing environmental designation for Reach 6 is Urban Conversancy.

x. Cultural Resources

There are no Archeological Site Form records of cultural sites within the SMP jurisdiction of Reach 6 on file with the Washington State Historic Preservation Office.

xi. DOE Facilities and 303(d) Listings

There are no DOE facilities along this reach. Medical Lake has been listed as a 303(d) lake for total phosphorus issues.

xii. Ecological Functions

Ecological functions on Reach 6 are relatively intact. The shoreline within this reach is primarily natural and undeveloped, providing potential habitat for a wide variety of wildlife and fish species. The riparian vegetation is diverse and well established, providing bank stability, as well as sources of large woody debris. The natural vegetation is largely unmodified within the jurisdiction of the east side of the lake, with the exception of a walking/biking trail that surrounds the lake. The natural vegetation in the southern end of the lake has been moderately impacted by recreational use, including a small lawn area and swimming beach associated with Waterfront Park, and vehicular and pedestrian access to an unimproved boat launch at the south end of the lake. The neighboring highway is a potential source of non-point pollution.

xiii. Protection and Restoration

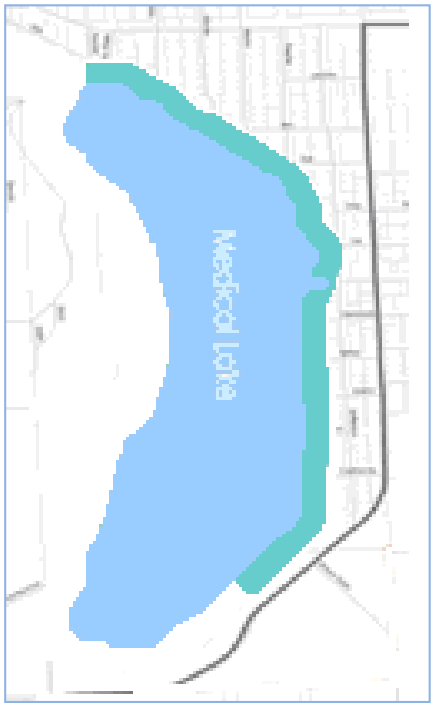
See (A) (B) (C) and (D) under Reach 6, restoration and protection policies, above.

7. REACH-7: (Medical Lake)

a. Environmental Designation: SHORELINE RESIDENTIAL

i. Restoration and Protection Policies

1) Encourage the establishment of Riparian Management Areas (RMAs) to act as a buffer from adjacent land disturbances. This could coincide with encouragement of planting native vegetation, except when they are considered noxious weeds, and limiting clearing and disturbance on privately owned residential properties with shoreline frontage.



2) Map RMAs on all plans and delineate with silt fencing and a compost berm to protect soils and vegetation from erosion and construction damage.

3) Recognizing that private docks are an acceptable accessory use for shoreline property owners, however they should be in a state of good repair for both safety and aesthetic purposes. New docks should be designed and located to blend into the site as much as possible.

4) Work with the City of Medical Lake to restore native riparian vegetation buffers along its two shoreline parks.

5) Prior to the issuance of building permits, plats, short plats or other shoreline development approval the developer shall submit adequate plans for preservation of shoreline vegetation, for control of erosion during and after

construction, resulting in permanent shoreline stabilization. Such plans shall be a part of the shoreline permit, if one is required.

b. Inventory and Analysis

i. Geology, Soils and Hazards

The geology for Reach 7 entirely consists of basalt flows. The soils within the SMP jurisdiction are almost entirely Hesseltine stony silt loam. The flood zone does not cover this reach.

ii. Natural Vegetation

Upland – The native vegetation of the area primarily consists of Ponderosa Pine and Douglas Fir, eastside forest interspersed with bunchgrass "prairies" dominated by Fescue wheatgrass. The natural vegetation has been heavily modified by a combination of largely residential and recreational land uses throughout the reach.

iii. Riparian

Emergent vegetation in the littoral zone is primarily restricted to corridors between 2.5 meters wide along the bedrock shoreline, comprising 11% of the reach. The rest of the emergent vegetation is restricted to narrow corridors less than 2 meters wide (9.1%). The emergent species are dominated bulrush, broad-leaved cattail and ditch-grass. The submergent species are dominated by northern watermilfoil, sago pondweed and water crowfeet. Eurasian watermilfoil, an exotic species, has also invaded the lake.

iv. Wetlands

Wetlands are found in the SMP jurisdiction.

v. Wildlife

Reach 7 may provide potential habitat for numerous terrestrial species. Among these species the Olive-sided Flycatcher, Willow Flycatcher, Townsend's Big-eared Bat, Yuma Myotis and the Columbia Spotted Frog are current species of concern.

vi. Land Use

Of the SMP jurisdiction lands along Reach 7, 38.1% is zoned R-1, single-family residential, 15.6% is vacant land, 12.5% community, 2.5% unclassified, 2.2% 2-4 dwelling units and 1% manufactured homes. This reach also contains public lands (17%), including two public parks, Coney Island and Peper Park. Coney Island Park, approximately one acre in size is adjacent to the downtown area. The site is an important linkage to recreation and the lake from the Central Business District. Peper Park facilities cover approximately one acre and includes six picnic tables and is linked to the city's trail system. Impervious surfaces comprise 15.4% of the area of Reach 7.

vii. Transportation Infrastructure

Roadways occupy 1.3 km of SMP jurisdiction land in Reach 7. There are also two stormwater drains located along this reach.

viii. Shore Protection Structures and Docks

Approximately 12% of the shoreline along Reach 7 is protected by shore protection structures. In addition 20 docks are located along this each.

ix. Zoning

Current zoning within the SMP jurisdiction of Reach 7 is single-family residential (100%). The existing environmental designation for Reach 7 is Shoreline Residential"

x. Cultural Resources

There are no Archeological Site Form records of cultural sites within the SMP jurisdiction of Reach 7 on file with the Washington State Historic Preservation Office.

xi. DOE Facilities and 303(d) Listings

There are no DOE facilities along this reach. Medical Lake has been listed as a 303(d) lake for total phosphorus issues.

xii. Ecological Functions

Ecological functions along Reach 7 are moderately impaired by residential development. Riparian vegetation has been removed and replaced with lawns, which can promote increased runoff and non-point pollution. Impervious surfaces, such as residential roads and buildings, can promote run-off and non-point source pollution. Extensive shoreline hardening has increased wave reflectivity, thereby affecting aquatic vegetation and fish habitat.

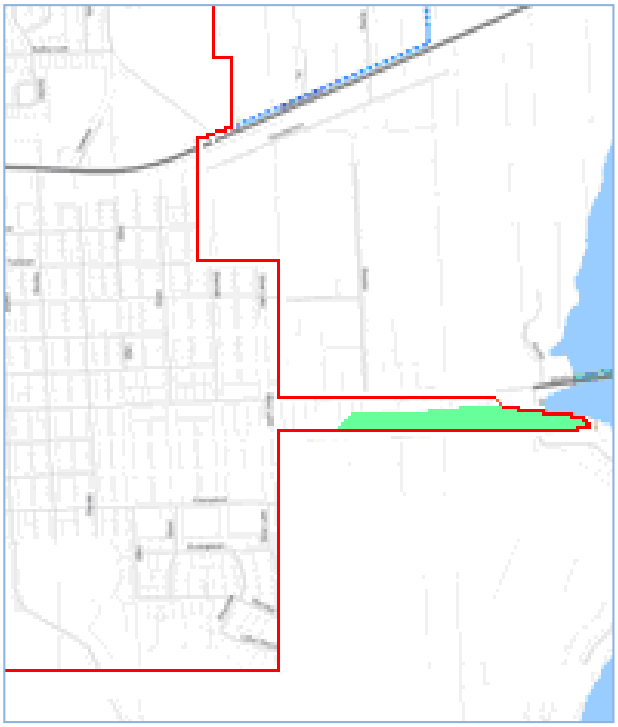
xiii. Protection and Restoration

See (A) (B) (C) (D) and (E) under Reach 7, restoration and protection policies, above.

8. REACH – 8 (Silver Lake)

a. Environmental Designation: NATURAL

i. Restoration and Protection Policies



1) No development and no shoreline modifications in wetland and riparian areas shall be permitted as critical areas make up over 60% of the area and opportunities for enhancement and protection of wetlands and critical wildlife habitat such as nesting site and forage areas. The riparian wetland also helps buffer the lake from non-point sources of pollution from the encroaching residential development.

2) Stormwater diversions or containment ponds could be used to protect the wetland and near shore habitat from non-point pollution runoff from the neighboring highway.

b. Inventory and Analysis

i. Geology, Soils and Hazards

The geology of Reach 8 predominantly consists of metasedimentary rock deposits (52.7%). The soils within the SMP jurisdiction are mainly Cocolalla silty clay loam (31.1%), while another 18% of the jurisdiction has fresh water marsh soils. Erodible soils cover 18.6% of the reach area. Approximately 5.1% of the area has slopes greater than 15%. Being relatively flat and low-lying, the flood zone covers approximately 74.9% of this reach.

ii. Natural Vegetation

Upland – The native vegetation of the area primarily consists of Ponderosa Pine and Douglas Fir, eastside forest interspersed with bunchgrass "prairies" dominated by Fescue wheatgrass. The natural vegetation has been modified by a combination of residential and agricultural land uses throughout the reach.

iii. Riparian

Emergent vegetation in the littoral zone is approximately 2.5 meters wide along most of the shoreline (86.7%). The emergent species are dominated bulrush and broad-leaved cattail. The submergent species include Canadian waterweed, northern watermilfoil, sago pondweed, curl-leaf pondweed, coontail and muskwort. Eurasian watermilfoil, an exotic species, has also invaded the lake.

iv. Wetlands

Wetlands are found in 60.7% of the SMP jurisdiction, dominated by the palustrine, emergent, persistent, seasonally flooded class.

v. Wildlife

Reach 8 may provide potential habitat for numerous terrestrial species. Among these species the Olive-sided Flycatcher, Willow Flycatcher, Townsend's Big-eared Bat, Yuma Myotis and the Columbia Spotted Frog are current species of concern. In addition, 94% of the jurisdiction is classified as a priority wetland habitat, associated with waterfowl concentrations of Mallard, Wigeon, Pintail, Cinnamon Teal and Redhead Northern Shoveler.

vi. Land Use

Of the SMP jurisdiction lands along Reach 8, 86.5% are vacant, 5.7% classified single-family residential, 3.3% is classified retail, and 3.2 are manufactured homes. There are no parks located along this reach. Impervious surfaces comprise 2.0% of the area in Reach 8.

vii. Transportation Infrastructure

Roadways occupy 0.4 km of SMP jurisdiction land in Reach 8. The road causeway is another potential source on non-point pollution. The causeway also cuts off the relatively shallower, northern end of the lake from the large-scale circulation patterns, thereby allowing the buildup of nutrients and increased eutrophication.

viii. Shore Protection Structures and Docks

There are no shore protection structures or docks along this reach.

ix. Zoning

Current zoning within the SMP jurisdiction of Reach 8 is entirely R-1, single-family residential, (100%). The existing environmental designation for Reach 8 is Natural.

x. Cultural Resources

There are no Archeological Site Form records of cultural sites within the SMP jurisdiction of Reach 8 on file with the Washington State Historic Preservation Office.

xi. DOE Facilities and 303(d) Listings

There are no DOE facilities along this reach and Silver Lake is not listed as a 303(d) lake.

xii. Ecological Functions

Ecological functions on Reach 8 are relatively intact. The shoreline within this reach is predominately made up of wetlands identified by the National Wetland Inventory, providing potential habitat for a wide variety of wildlife and fish species. Currently there are no shoreline protection structures along this reach, unlike those found on Reach 9. However, residential development in the upland is encroaching on the wetland environment and is a potential source of non-point pollution such as sediment, fertilizers and pesticides. The road causeway is another potential source of non-point pollution. The causeway also cuts off the relatively shallower northern end of the lake from large-scale circulation patterns, thereby allowing the buildup of nutrients and increased eutrophication.

xiii. Protection and Restoration

See (A) and (B) under Reach 8, restoration and protection policies, above.

For the purposes of this shoreline plan "goals" mean the broadest expression of community desires consistent with the SMA. A policy is a commitment to act in a prescribed manner in the administration of the master program. Most policy statements use the verb "should" to indicate the principal to be upheld in making a decision and that the policy direction itself will require interpretive judgment in applying it to a specific case. In some cases the verb "shall" is used to indicate that the statement must be conformed to.

Figure 1: Medical Lake Shorelines, Reaches 1 - 8

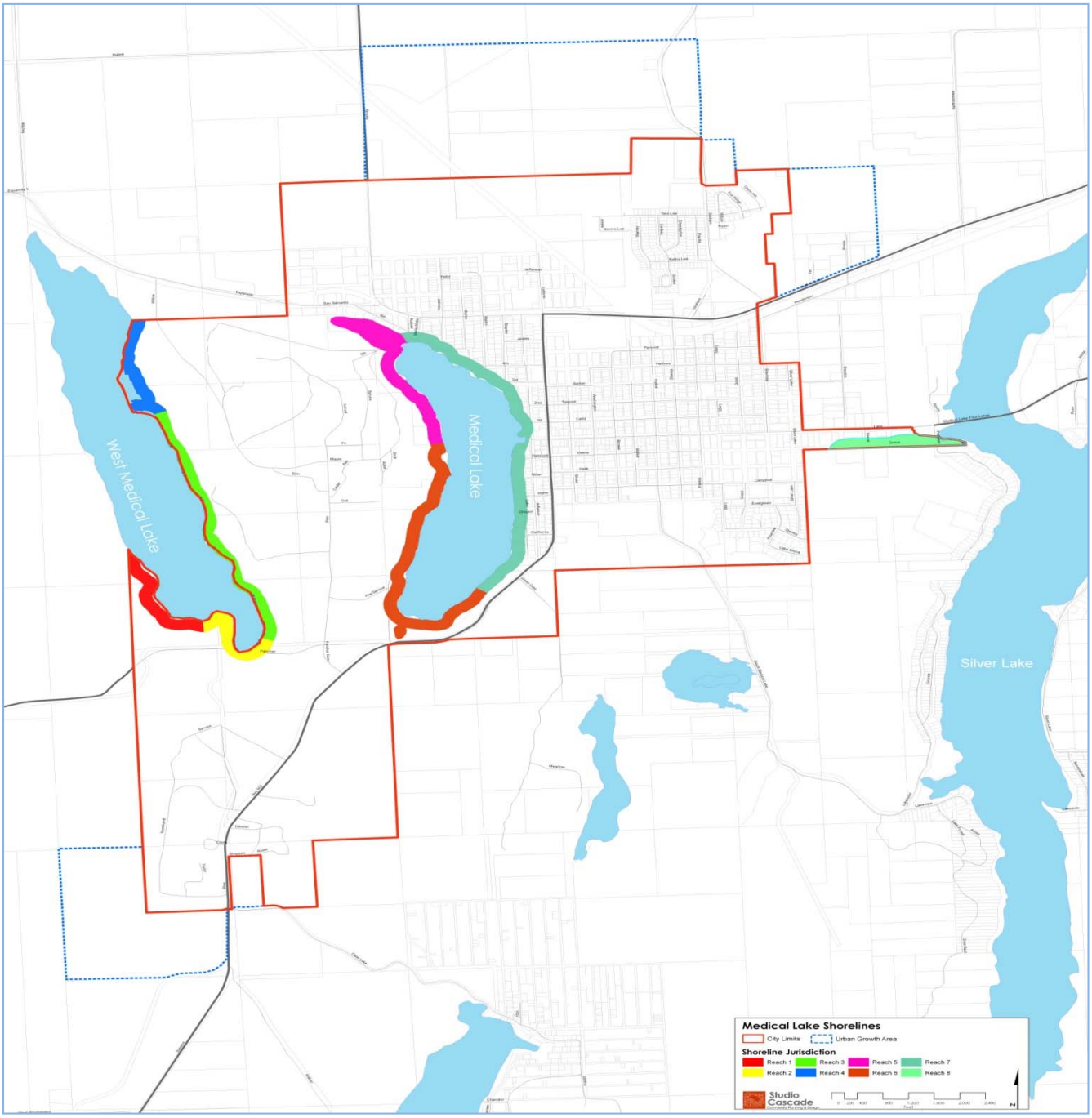


Table 1: West Medical Lake

Overview: West Medical lake is located approximately 15 miles southwest of Spokane, Washington and is one of the few lakes in Washington State with a permitted waste water discharge. It was formed in basalt scours and has a surface area of approximately 220 acres with a drainage area of about 2 square miles. The maximum depth is 35 feet below ground surface. Elevation is approximately 2,423 feet above mean sea level. It has approximately 3.98 miles of shoreline.

Ecological Processes Summary: West Medical Lake has one surface inlet located to the south of the lake. The lake shoreline is primarily undeveloped and natural. The shorelines of the lake have both lacustrine and palustrine emergent wetland complexes along 85% of the shoreline and are highly functional in the current conditions. Based on aerial photographs and prior assessment determinations, it appears that the wetland complexes are relatively diverse and functioning, and should be maintained as a priority. With the exception of the south end of the lake, the shoreline areas have vegetation connectivity which provides shoreline stability, water storage, filtration of sediments and protection for the wetland systems. The south shoreline areas have been developed for recreational uses and have less vegetation components, which decreases the functions of those same values.

Reach Designation	Existing Environmental Designation	PFC Determination	Characterization of Processes Within Reach	Restoration Maintenance Strategies
1, 3 and 4	**Natural**	**(b)**	**Vegetation:** Maintain the natural shoreline and the highly functional lacustrine/littoral-emergent and palustrine-emergent wetland vegetation; including Cattail, Coontail, Pondweed, and Bulrush. This area provides key functions such as sediment filtration, bank stability, wildlife use and maintenance of water quality. Plant diversity will ensure sediment filtration, bank stability, wildlife use and maintain water quality. **Soil:** Soils along Reach A consist of Hesseltine stony silt loam on the west shoreline, Cheney and Uhlig silt loam on the north shoreline, and Bong sandy loam on the east side of the lake. Slopes are generally 0 to 8 percent along the north and east shore, and range from 0 to 20 percent on the west shoreline. Soils have moderate to high permeability, and low potential for instability. Some potential for erosion above the west shoreline where highly erodible soils (Reardan silt loam) are present on the upper hillside slopes on the west side of the lake. **Water Movement:** Surrounding basalt peaks suggest surface runoff and shallow groundwater flows may recharge the lake. Runoff from upper hillsides on the west side of the lake that contain erodible soils may contribute to sediment loading into the lake. Maintain existing infiltration capacity of soils along shoreline to prevent erosion and maintain bank stability. Irrigation of surrounding agricultural land may provide infiltration that recharges the lake and impacts water quality. **Wildlife:** Currently supporting many mammal populations including, several small mammals, ungulates (hoofed animals), multiple duck species, osprey, geese, heron, turtles and many additional avian species. Maintain the habitat diversity to ensure the continued presence of these species. **Fish:** The maintenance of habitat diversity, stabilized banks, and water quality will provide for a fishery that will be utilized by wildlife and humans. **Water Quality:** Water quality impacts associated with runoff from livestock usage and nearby agricultural practices, in addition to the permitted waste water discharge. Runoff from farmlands may contain fertilizers and/or pesticides.	**(III) (V)**

Reach Designation	Existing Environmental Designation	PFC Determination	Characterization of Processes Within Reach	Restoration Maintenance Strategies
2	**Urban Conservancy**	**(b)**	**Vegetation:** Loss of vegetation communities due to recreational facilities. Habitat adjacent to this area (east and west) should be maintained. The fragmentation of vegetation likely contributes to increase runoff, lowered filtration capabilities and has potential for impairing water quality. **Soil:** Soils consist of Hesseltine stony silt loam along the south shoreline. The soils are well drained and have a low potential for slope instability. Bedrock is typically shallow and the stony nature inhibits erosion. Some potential for ponding water above the bedrock surface where soil thickness is small. **Water Movement:** Surface slopes in the southern portion of the lake are shallow, suggesting a low potential for runoff impacting the lake. Shallow groundwater may be present immediately above the bedrock surface. Surface activities have a potential to impact shallow groundwater, which could potentially impact the lake. **Wildlife:** Wildlife use is most likely concentrated to areas east, west and north of the recreational area. Maintenance of these vegetated areas will ensure continued wildlife use. **Fish:** Same as Reach A. **Water Quality:** Water quality impacts associated with runoff from paved surfaces and recreation activities in developed areas, as well as development near lake shorelines.	**(I) (II) (IV) (V)**

Notes:

(a) Proper Functioning Condition* - Riparian-wetland areas are functioning properly when adequate vegetation, landforms or large woody debris is present in order to facilitate the following: 1) Dissipate stream energy associated with high water flows, thereby reducing erosion and improving water quality., 2) Filter sediment, capture bed load, and aid floodplain development, 3) Improve floodwater retention and groundwater storage, 4) Develop root masses that stabilize stream bank against action, 5) Develop diverse ponding and channeling characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding and other uses, and 6) Support greater biodiversity.

(b) Functional-at-risk* - Riparian-wetland areas that are in functional condition but existing soil, water or vegetation attributes can make them susceptible to degradation.

(c) Nonfunctional* - Riparian-wetland areas that clearly are not providing adequate vegetation, landform or large debris to dissipate stream energy associated with high flow and thus are not reducing erosion, improving water quality or performing other functions as listed above under the definition of proper function. The absence of certain physical attributes, such as absence of a floodplain where one should be, is an indicator of nonfunctioning conditions.

URS. 2002 Shoreline Inventory and Assessment for Spokane County Lakes; Spokane County Shoreline Critical Habitat. December.

(I) Passive Bioengineering – Restoration strategy most appropriate for areas of moderate site disturbance and relatively intact habitat conditions. Includes the following: 1) Planting of native vegetation that mimics the adjacent plant communities, 2) Minimal grading or sloping to replicate natural topography, 3) Drip irrigation to increase survivability of introduced vegetation, 4) Monitoring and evaluation of plant survivability, including noxious weed removal and replacement of dead vegetation, 5) Livestock exclusion or rotation to eliminate or minimize compaction of soil and impacts to native vegetation, 6) Toe-slope armoring including native vegetation plantings, and 6) Slope stabilization.

(II) Hard Bioengineering – Restoration strategy most appropriate for areas that have been moderately to severely modified or impacted. Includes the following: 1) Slope modifications using heavy equipment, 2) Toe-slope armoring including large rock or wood debris placement, 3) Slope stabilization, and 4) Excavation of site to properly mimic natural conditions found pre-disturbance.

(III) Native Plant Enhancement – Restoration strategy most appropriate for areas that have been minimally disturbed and require less intervention to reestablish natural functions and values. Includes the following: 1) Planting of vegetation communities that closely mimic conditions found at intact sites adjacent to the area, 2) Placement of small quantities of plant material to benefit function and value of fairly intact habitat conditions, and 3) Placement of tree and shrub habitat components that are focused in providing habitat connectivity or canopy cover for fish and wildlife.

(IV) Native Grass Strip Buffers – Restoration strategy most appropriate for areas that require stabilization, filtration and storage functions near adjacent water bodies; this strategy should be utilized in areas where native vegetation placement is not possible. Includes the following: 1) Planting of native grasses that are prevalent in the surrounding areas, 2) Minor scarification of planting area to facilitate adequate germination, water storage and rooting, 3) Adequate mulching to protect grass seed and to provide moisture for an extended period of time, and 4) Monitoring and evaluation.

(V) Buffer Requirements – Restoration strategy implements buffer requirements, based on " the most current, accurate, and complete scientific and technical information available " to include encroachment to the established buffer areas, Maintaining current ecological function and values.

(VI) Hydrology Enhancement/Alteration – Restoration strategy to provide reestablishment of natural hydrology to include the following: 1) Culvert replacement removal, 2) Dike removal or maintenance, 3) Artificial drainage removal, 4) Floodplain reconnection and 5) Barrier removal.

Table 2: Medical Lake

Overview: Medical Lake is located approximately 10 miles southwest of Spokane, Washington. The lake has a surface area of approximately 160 acres in size with a drainage area of about 1.31 square miles. Medical Lake was formed in basalt scours with a maximum depth of 60 feet below ground surface. Elevation is approximately 2,394 feet above mean sea level. Medical Lake has approximately 3.14 miles of shoreline.

Ecological Processes Summary: Medical Lake has an emergent wetland complex at the north end and along the west bank. The shorelines of the lake have both lacustrine and palustrine emergent wetland complexes and are highly functional in the current conditions. Based on aerial photographs and prior assessment determinations, it appears that the wetland complexes are relatively diverse and functioning, and should be maintained as a priority. The undeveloped areas have vegetation connectivity which provides shoreline stability, water storage, filtration of sediments and protection for the wetland systems. Areas of development have little or no vegetation components which decreases the functions of those same values. Shoreline erosion has been documented in the areas of the east and south shorelines from modifications to accommodate residential and recreational activities.

Reach Designation	Existing Environmental Designation	PFC Determination	Characterization of Processes Within Reach	Restoration Maintenance Strategies
5 and 6	**Natural** **&** **Urban Conservancy**	**(b)**	**Vegetation:** Maintain vegetated communities to the west and the lacustine/littoral emergent and palustrine emergent wetland complexes at the north and west banks. These areas provide key functions such as sediment filtration, bank stability, wildlife use and maintenance of water quality. Development west of this area comprises the habitat connectivity between the identified wetland complexes. Protection of intact wetland complexes is necessary. **Soil:** Soils along the northwest portion of Reach A consist of Dragoon very rocky complex, which are predominantly granite outcrops with shallow Dragoon silt loam. Bong coarse sandy loam is present along the west side of the lake, and the south portion contains Hesseltine very rocky complex which consists of basalt outcrops with Hesseltine silty loam. Soils, where present, are typically shallow, well drained with moderate permeability and a moderate hazard of erosion. Some erodible soils are present on the upper hillside above the west side of the lake. **Water Movement:** Shallow groundwater from infiltration of precipitation of stormwater may flow along the bedrock surface into the lake. Shallow groundwater is susceptible to surface contamination, which could infiltrate into the lake. **Wildlife:** Wildlife use is most likely concentrated to areas at the north where established wetland systems provide diverse vegetation communities. Maintenance of these vegetated areas will ensure continued wildlife use. Open, undeveloped areas to the south also likely support populations of small mammals and provide foraging areas for raptor species. **Fish:** The maintenance of habitat diversity, stabilized banks, and water quality will provide for a lake fishery that will be utilized by the predators within the habitat areas. **Water Quality:** Potential impacts from increased residential/industrial development and recreational use has increased in this reach. Impacts from septic systems and sediment loading from surface runoff are possible.	**(V)**

Reach Designation	Existing Environmental Designation	PFC Determination	Characterization of Processes Within Reach	Restoration Maintenance Strategies
7	**Shoreline Residential**	**(b)**	**Vegetation:** Roads, residences, recreational and low density suburban developments have fragmented habitat connectivity, structural diversity and increased potential for impairment of water quality. Isolated communities of vegetation remain and must be protected from fragmentation. **Soil:** Soils consist of Hesseltine story silt loam mounted with typical depths to bedrock of 2 to 5 feet below the ground surface. Medical Lake lies along the eastern shore within this reach which includes roadways, commercial development and private homes. **Water Movement:** Development has created impermeable surfaces from structures and roadways. Potential runoff in developed areas may cause bank erosion or sediment loading to lake and impact water quality due to infiltrating stormwater. **Wildlife:** Habitat fragmentation has minimized the use by wildlife species due to human encroachment. Wildlife corridors and the reestablishment of habitat complexes will increase the function of these developed areas. **Fish:** Maintenance of fragmented habitat, enhancement of connectivity of habitat as opportunities exist, establishment of native vegetation to filter sediments from impervious surfaces will maintain and contribute toward increased water quality. Maintenance of water quality will promote fisheries for wildlife and recreational uses. **Water Quality:** Residential development along the east shore has the potential to introduce auto related contaminants through surface runoff or infiltration. Water quality impacts associated with runoff from residential fertilizers may contribute to increase eutrophic conditions.	**(I) (III) (IV) (V)**

Notes:

(a) Proper Functioning Condition* - Riparian-wetland areas are functioning properly when adequate vegetation, landforms or large woody debris is present in order to facilitate the following: 1) Dissipate stream energy associated with high water flows, thereby reducing erosion and improving water quality., 2) Filter sediment, capture bed load, and aid floodplain development, 3) Improve floodwater retention and groundwater storage, 4) Develop root masses that stabilize stream bank against action, 5) Develop diverse ponding and channeling characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding and other uses, and 6) Support greater biodiversity.

(b) Functional-at-risk* - Riparian-wetland areas that are in functional condition but existing soil, water or vegetation attributes can make them susceptible to degradation.

(c) Nonfunctional* - Riparian-wetland areas that clearly are not providing adequate vegetation, landform or large debris to dissipate stream energy associated with high flow and thus are not reducing erosion, improving water quality or performing other functions as listed above under the definition of proper function. The absence of certain physical attributes, such as absence of a floodplain where one should be, is an indicator of nonfunctioning conditions.

URS. 2002 Shoreline Inventory and Assessment for Spokane County Lakes; Spokane County Shoreline Critical Habitat. December.

(I) Passive Bioengineering – Restoration strategy most appropriate for areas of moderate site disturbance and relatively intact habitat conditions. Includes the following: 1) Planting of native vegetation that mimics the adjacent plant communities, 2) Minimal grading or sloping to replicate natural topography, 3) Drip irrigation to increase survivability of introduced vegetation, 4) Monitoring and evaluation of plant survivability, including noxious weed removal and replacement of dead vegetation, 5) Livestock exclusion or rotation to eliminate or minimize compaction of soil and impacts to native vegetation, 6) Toe-slope armoring including native vegetation plantings, and 6) Slope stabilization.

(II) Hard Bioengineering – Restoration strategy most appropriate for areas that have been moderately to severely modified or impacted. Includes the following: 1) Slope modifications using heavy equipment, 2) Toe-slope armoring including large rock or wood debris placement, 3) Slope stabilization, and 4) Excavation of site to properly mimic natural conditions found pre-disturbance.

(III) Native Plant Enhancement – Restoration strategy most appropriate for areas that have been minimally disturbed and require less intervention to reestablish natural functions and values. Includes the following: 1) Planting of vegetation communities that closely mimic conditions found at intact sites adjacent to the area, 2) Placement of small quantities of plant material to benefit function and value of fairly intact habitat conditions, and 3) Placement of tree and shrub habitat components that are focused in providing habitat connectivity or canopy cover for fish and wildlife.

(IV) Native Grass Strip Buffers – Restoration strategy most appropriate for areas that require stabilization, filtration and storage functions near adjacent water bodies; this strategy should be utilized in areas where native vegetation placement is not possible. Includes the following: 1) Planting of native grasses that are prevalent in the surrounding areas, 2) Minor scarification of planting area to facilitate adequate germination, water storage and rooting, 3) Adequate mulching to protect grass seed and to provide moisture for an extended period of time, and 4) Monitoring and evaluation.

(V) Buffer Requirements – Restoration strategy implements buffer requirements, based on " the most current, accurate, and complete scientific and technical information available " to include encroachment to the established buffer areas, Maintaining current ecological function and values.

(VI) Hydrology Enhancement/Alteration – Restoration strategy to provide reestablishment of natural hydrology to include the following: 1) Culvert replacement removal, 2) Dike removal or maintenance, 3) Artificial drainage removal, 4) Floodplain reconnection and 5) Barrier removal.

Table 3: Silver Lake

Overview: Silver Lake is located 1.1 miles east of the City of Medical Lake, Washington. The lake has a surface area of approximately 486 acres with a drainage area of about 19 square miles. The lake was formed in basalt scours. The maximum depth of Silver Lake is 80 ft. below ground surface and the elevation is approximately 2,341 ft. above mean sea level. Silver Lake has approximately 8.7 miles of shoreline. And is within the Crab Creek Watershed. Land use in the watershed consists of primarily undeveloped land with abundant timber and agricultural land.

Ecological Processes Summary: Silver Lake supports multiple recreational activities. The lake has well developed east and west shorelines of residential homes and resorts. North and south ends of the lake have both lacustrine submergent and palustrine emergent wetland complexes and are highly functional in the current conditions. Based on aerial photographs and prior assessment determinations, it appears that the wetland complexes are relatively diverse and functioning, and should be maintained as a priority. The undeveloped areas have vegetation connectivity which provides shoreline stability, water storage, filtration of sediments and protection for the wetland systems. Areas of development have less vegetation components which decreases the functions of those same values . Background data suggest that Silver Lake is in a mesotrophic state of enrichment.

Reach Designation	Existing Environmental Designation	PFC Determination	Characterization of Processes Within Reach	Restoration Maintenance Strategies
8	**Natural**	**(a)**	**Vegetation:** Maintain the highly functional lacustrine/littoral submergent and palustrine-emergent wetland vegetation; including waterweed, water milfoil, buttercup, pondweeds, muskwart, speedwell and coontail. Plant diversity will ensure sediment filtration, bank stability, wildlife use and maintain water quality. **Soil:** Primarily fresh water marsh sediments that are characteristic of shallow swampy ponds and fringes around lakes. **Water Movement:** Marshy conditions indicate shallow water and surface water present, with levels that may fluctuate with water levels in the lake. The water is hydraulically connected with the main lake, and water movement may be influent to the effluent from the main lake body. **Wildlife:** Maintain the habitat diversity to ensure the continued presence of small mammals, whitetail deer, native ungulates and many avian species. **Fish:** The maintenance of habitat diversity, stabilized banks, and water quality will provide for a fishery that will be utilized by the predators within the habitat areas.. **Water Quality:** Traffic on roadways has the potential to introduce auto related contaminants through surface runoff or infiltration. Runoff from impervious surfaces in developed areas, and environmental impacts to shallow groundwater may recharge the lake in some areas..	**(V)**

Notes:

(a) Proper Functioning Condition* - Riparian-wetland areas are functioning properly when adequate vegetation, landforms or large woody debris is present in order to facilitate the following: 1) Dissipate stream energy associated with high water flows, thereby reducing erosion and improving water quality., 2) Filter sediment, capture bed load, and aid floodplain development, 3) Improve floodwater retention and groundwater storage, 4) Develop root masses that stabilize stream bank against action, 5) Develop diverse ponding and channeling characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding and other uses, and 6) Support greater biodiversity.

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URS. 2002 Shoreline Inventory and Assessment for Spokane County Lakes; Spokane County Shoreline Critical Habitat. December.

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NOTES:

Shoreline Management Plan and Comprehensive Plan both place great emphasize on the Trail System as it circles the lake's shoreline.

Milfoil - As part of the medical lake shoreline management plan how can we work to our advantage increased awareness and funding opportunities.

1. Form a Lake Management District, Taxing Authority for Restoration Projects
2. Election of Commissioners
3. Lake Management District as part of Shoreline Management Plan.