CITY OF STANWOOD, WASHINGTON

SHORELINE MASTER PROGRAM

JUNE, 1998

TABLE OF CONTENTS

CHAPTER 1 - INTRODUCTION

CHAPTER 2 - SHORELINE MANAGEMENT GOALS

CHAPTER 3 - GENERAL POLICIES AND REGULATIONS

CHAPTER 4 - ENVIRONMENT DESIGNATION POLICIES AND REGULATIONS

CHAPTER 5 - SHORELINE USE POLICIES AND REGULATIONS

CHAPTER 6 - SHORELINE MODIFICATION ACTIVITY REGULATIONS

CHAPTER 7 - DEFINITION OF TERMS

CHAPTER 8 - SHORELINE ENVIRONMENT DESCRIPTION AND MAPS

CHAPTER 1 - INTRODUCTION

History and Objectives of Shoreline Management in Washington State

In 1969, the Washington State Supreme Court decided in the case of Wilbur v. Gallagher (77 Wn 2d 302), commonly known as the "Lake Chelan Case", that certain activities along shorelines were contrary to the public interest. The court findings required that the public interest be represented in the proper forum for determining the use of shoreline properties. The ramifications of this decision were significant in that developers, environmentalists and other interested parties began to recognize, although probably for different reasons, the need for a comprehensive planning and regulatory program for shorelines.

Wilbur v. Gallagher was a case primarily involving property rights. It was decided at a time of heightened environmental awareness. Federal legislative committees were hearing the beginnings of what eventually became the National Environmental Policy Act of 1969. "Earth Day" and the concept of "spaceship earth" were part of the American scene. "Conservationists" had become "environmentalists" and some had even gone so far as to call themselves "ecologists". Whatever the name or concept, concern for fragile ecological areas became important, along with the rights of property ownership.

Voters of the state, seeing the failure of the Seacoast Management Bill in the State legislature, validated an initiative petition commonly titled the "Shoreline Protection Act". The State legislature, choosing between adoption of the peoples' initiative petition or its own alternative, passed into law the "Shoreline Management Act of 1971" (SMA), effective June 1, 1971, which contained the provision for both statutes to be deferred to the electorate in the November 1972 election. The election issue required that voters respond to two questions: (1) Did they favor shoreline management? and (2) which alternative management program did they prefer? Most Washington voters favored both shoreline management and the legislature's alternative by an approximate 2 to 1 margin. It is important to keep in mind that the SMA was a response to a peoples' initiative and was ratified by the voters, giving the Act a populist foundation as well as an environmental justification.

The Act's paramount objectives are to protect and restore the valuable natural resources that shorelines represent and to plan for and foster all "reasonable and appropriate uses" that are dependent upon a waterfront location or that offer opportunities for the public to enjoy the state's shorelines. With this clear mandate, the provisions of the SMA established a planning and regulatory program, which is initiated at the local level under state guidance.

Applicability and Process of Shoreline Management

The Shoreline Management Act covers all shorelines of the state, including "shorelines" and "shorelines of state-wide significance" (SSWS). Provisions of the Act apply to the following geographical shoreline areas (see RCW 90.58.030 (2)):

1. All marine waters of the state, together with the lands underlying them;

2. Streams and rivers with a mean annual flow of 20 cubic feet per second (cfs) or more;

3. Lakes and reservoirs larger than 20 acres in area; and

4. Wetlands associated with the above (this is a specific SMA term which includes related dry upland, shoreland and wetland areas).

The SMA sets up a process for managing development of the state's shorelines through state-monitored, locally-administered permitting programs. Under the Act, local governments are required to prepare a detailed shoreline inventory and a "shoreline master program" to manage shoreline development. Based upon the inventory of local shorelines, a system for categorizing various segments is established through application of shoreline environment designations. The Act specifies that master programs include policy statements (i.e. the required "elements") that take into account economic development, public access, circulation and transportation, recreation, shoreline use, conservation and historical and cultural aspects of the shoreline area (RCW 90.58.100 (2)). From these policy statements, regulations are derived which establish appropriate permitted uses and standards within each shoreline environment.

Following approval of its master program, the City of Stanwood (the City) is required to administer and enforce a procedure for issuing permits for activities in the shoreline area. The Act requires the City to take primary responsibility for initiating and administering the regulatory program. Ecology is required to support the City's efforts and to review programs and permits for consistency with the Act (RCW 90.58.050).

Relationship of the Shoreline Master Plan to other Regulatory Programs

This cooperative effort balances local and state-wide interests in the management and development of shoreline areas by requiring local governments to plan (via shoreline master programs) and regulate (via permits) shoreline development. Local government actions are monitored by Ecology, which approves new or amended SMPs, reviews substantial development permits and approves conditional use permits and variances (See Figure 1-1). The master program is essentially a shoreline comprehensive plan with a distinct environmental orientation applicable to shoreline areas and customized to local circumstances. Collectively, all the local master programs throughout the state comprise the State Shoreline Master Program.

Relationship of the Shoreline Master Plan to the Comprehensive Plan and Unified Development Code (UDC)

Stanwood’s Comprehensive Plan contains a vision of its future; the UDC contains all development regulations including critical areas, stormwater requirements, floodplain development, etc. The UDC is codified as Chapter 17 in the Stanwood Municipal Code (SMC); the Shoreline Management Standards are in SMC Chapter 17.150. The goals and policies of SMA must be consistent with the City’s adopted Comprehensive Plan and the UDC. The state perspective is also reflected in the GMA's comprehensive planning goals found in RCW 36.70A.020.

Involvement of state agency staff is encouraged early on in the local planning process – prior to SEPA review. One of the principal tenets of the GMA is that local government decisions should be made with full knowledge of the consequences, addressing not only fiscal constraints but also the environmental consequences.

Figure 1. Local and State Responsibilities

Local Government Responsibility	State (Ecology) Responsibility
To administer the SMA at the local level . To perform shoreline inventory , analysis, and planning and public participation activities in preparation of the SMP. To prepare the SMP and update regularly and submit to Ecology for approval	To ensure that the SMA's objectives are implemented. To assist local government in addressing the full range of new and emerging shoreline management issues (e.g. wetlands, ocean use activities, public access, special area management planning, etc.) To review and approve locally prepared SMP's and amendments that are consistent with the Act and
To review all shoreline conditional use and variance permits to approve, condition or deny permit application and to submit all approved application to Ecology for review. To enforce the provisions of the local master program within the authority given.	To review all shoreline permit applications submitted by local governments; and, to review and decide upon shoreline and conditional use permits and variances. To enforce the SMA in the cooperation with, or independent of local government.

Organizational Outline of the Shoreline Master Program

The Stanwood Shoreline Master Program is organized into 8 sections as follows:

1. INTRODUCTION

This section addresses the history and objectives of shoreline management in Washington State. The legislative and legal framework and applicability of shoreline master programs, the relationship of shoreline master programs to other regulatory programs, and how to use the SMP, including a guide to processes and concepts involved with shoreline management and an organizational outline of the document.

2. SHORELINE MANAGEMENT GOALS

This section contains the goals, which are the broadest principals that establish the intent behind the policies and regulations contained in the SMP. Goals are organized into the master program elements, which are mandated by the SMA and are intended to guide and support the major shoreline management issues.

3. GENERAL POLICIES AND REGULATIONS

This section contains the general policies and regulations, which cover the most basic shoreline management issues and a broad range of shoreline conditions. The section also contains specific policies and regulations for shoreline management topics which apply equally in all environment designations such as public access, view protection, parking, water quality, utilities, signs, stormwater runoff, erosion, vegetation management, shoreline modification and wetland preservation. This section also contains policies related to Shorelines of State-wide Significance.

4. ENVIRONMENT DESIGNATION POLICIES, REGULATIONS AND MAPS

Environment Designation Policies: This section classifies shorelines into specific "environment" designations based on the shorelines physical, biological and development characteristics. Policies and regulations are presented for each designation, reflecting the specific purpose and intent of each environment and responding to its specific conditions.

Maps and Common Boundary Descriptions: This section contains 1) shoreline environment designation maps showing geographic extent of environment designations; and 2) common boundary descriptions for each environment designation indicating the border where each designation begins and ends.

5. SHORELINE USE POLICIES AND REGULATIONS

This section includes the development regulations which are supported by related policies for specific shoreline "use" categories such as commercial, industrial and recreation.

6. SHORELINE MODIFICATION ACTIVITY REGULATIONS

Shoreline modification "activities" are considered by WAC 173-16-060 as "use activities." For management purposes, use activities are placed in this section. Shoreline modification activities are usually preliminary construction actions undertaken in preparation for, or in support of, a shoreline "use" and are generally not be granted unless a "use" is specified. Shoreline modification "activities" include dredging, landfill, piers, bulkheads, etc.

For example, under this strategy a marina would be considered a shoreline "use" which may require several "activities" such as a pier or breakwater construction, dredging or grading.

7. DEFINITION OF TERMS

This section defines terms used in the SMP.

8. SHORELINE ENVIRONMENTAL DESCRIPTION AND MAPS

CHAPTER 2 - SHORELINE MANAGEMENT GOALS

Shoreline Use Element

1. Ensure appropriate conservation and development of Stanwood's shorelines by allowing those uses which are particularly dependent upon their location on and use of shorelines, as well as other development which provides an opportunity for substantial number of people to enjoy the shorelines. This should be done in a manner which will achieve an orderly balance of shoreline uses that do not unduly diminish the quality of the environment.

2. Ensure that all uses and developments are as compatible as possible with the site, the surrounding area and the environment.

3. Reserve the shoreline areas for uses or conditions which allow optimal uses for future generations by recognition and encouragement of potential long term benefits to the public, and discouragement of short term gain or convenience.

4. Provide site development performance standards and other appropriate criteria to developers indicating minimal acceptable standards to be achieved.

5. Encourage multiple use of shoreline areas where location and integration of compatible uses or activities is feasible.

6. Shoreline land and water areas which are particularly suited for specific and appropriate uses should be reserved for those uses.

7. Control uses not water dependent which permanently alter the shoreline, conflict with, or preempt other shoreline dependent uses.

8. Allow uses, on a specified interim basis, which are not shoreline related, if not permanent and if not requiring permanent modifications of natural shorelines.

Economic Development Element

1. Encourage and give priority to those industrial, commercial and recreational developments that are particularly dependent on their location on Stanwood's shoreline. Encourage development that will provide the public an opportunity to enjoy the shorelines. Minimal disruption of the natural environment is envisioned in the implementation of this goal. Permit present industrial site expansion where necessary and feasible.

2. Modify the adverse effects of new commercial, industrial and recreational development upon the physical environment and natural processes, through careful planning.

3. Encourage commercial and industrial development from scattering randomly or from locating in undeveloped areas prematurely.

4. Encourage commercial and industrial development in areas already developed so long as such areas have not reached their functional capacity.

5. Encourage the development of commercial, industrial and recreational activities which can make use of existing public services.

6. Provide maximum flood protection for City of Stanwood.

Circulation Element

1. Develop safe, convenient and diversified shoreline dependent circulation systems to assure efficient movement of goods and people with minimum disruptions to the shoreline environment and minimum conflict between the different users.

2. Design circulation systems, which provide safe and efficient movement of people and products while providing for alternative modes of transportation.

3. Allow only those circulation activities which do not produce undue pollution of the physical environment and which do not reduce the benefits which people derive from their property without due compensation.

4. Locate and design major circulation systems well away from the shoreline, except for necessary crossings, so that natural shorelines remain substantially unmodified.

5. Encourage corridors for transportation and utilities when they must cross shorelines.

6. Encourage joint uses of any necessary roads.

7. Encourage alternate modes of transportation such as pedestrian and bicycle to the shoreline.

Conservation Element

1. Assure protection, preservation, and restoration of Stanwood's unique, fragile and scenic nonrenewable resources, while encouraging the best management practices for the continued sustained yield of renewable resources of the shoreline.

2. Preserve the scenic and aesthetic qualities of shorelines, floodplain and vistas.

3. Provide for a beneficial utilization of shoreline and floodplain related resources without harming other natural systems or the overall quality of the natural environment.

4. Encourage the best management practices for the sustained yield of replenishable resources.

5. Preserve unique, rare and fragile natural features and resources as well as scenic vistas, parkways and habitats of rare or endangered species.

Public Access Element

1. Ensure safe, convenient and diversified access for the public to the publicly owned shorelines of Stanwood and assure that the intrusions created by public access will recognize the rights of private property owners, will not endanger life, and will not adversely affect fragile natural areas.

2. Respect and protect the enjoyment of private rights in shoreline property when considering public access development.

3. Locate, design and maintain public access development so as to protect the natural environment and natural processes.

4. Provide for the public health and safety when developing public access.

5. In addition to present and existing facilities and properties, purchase or otherwise make available to the public, including the City - Rotary Park Site, shoreline properties including tide land tracts if their value for public use merits such action.

6. Control and regulate public access to ensure that the ecology shall not be unduly damaged by public use.

Recreational Element

1. Provide additional opportunities and space for diverse forms of recreation for the public and improvement of present facilities.

2. Identify, obtain, preserve and protect areas with high values for recreation before other development makes such action impossible.

3. Encourage location, design and operation of recreational development for maximum compatibility with other uses and activities, encouraging private investments.

4. Provide a balanced choice of recreational opportunities, including those requirements of the elderly and the physically challenged.

5. Encourage innovative and cooperative techniques among public agencies and private persons or groups which increase and diversify recreation opportunities.

6. Encourage compatible recreational uses including bicycle and foot paths in transportation and utility corridors where feasible.

Historical / Cultural Element

1. Protect, preserve and encourage restoration of those sites and areas on the shoreline which have significant historical, cultural, educational or scientific value.

2. Preserve permanently for scientific study and public observation all areas known to contain significant archaeological data.

3. Preserve for the public benefit, with opportunity for appropriate public utilization, significant historic, scientific, and educational areas of the shoreline.

Flood Hazard Element

1. The goals of the City Comprehensive Plan shall be considered in reviewing all shoreline proposals.

2. The City of Stanwood recognizes shoreline jurisdiction including two hundred (200) feet from the ordinary high water mark (OHWM) or floodway. The City also recognizes all associated wetlands (marshes, bogs and swamps) in the 100 year floodplain and all wetlands which are associated by proximity and influence which need not be in the 200 foot limit of the OHWM or floodway.

Comprehensive Long Range Planning Element

Support the integration of other City planning and regulatory efforts with shoreline management activities, especially planning and implementation of plans under the Growth Management Act (GMA). This element reflects changes in state legislation which make SMP policies part of the Comprehensive Plan and SMP regulations part of the City development code.

Educational Element

Work with the public to increase awareness of the Shoreline Management Act, and the importance of protecting shorelines.

Agriculture

Not applicable to the City of Stanwood, there are no agricultural lands within the city's jurisdiction.

Implementation

1. Advance the intent and policy of the Shoreline Management Act of 1971 through a fair, balanced and impartial administration of the shoreline permit process and other legal requirements of the Act.

2. Base all official actions relating to shoreline permits upon the goals, policies, environmental designations, use allocations and performance standards contained within the Shoreline Management Act, the Shoreline Master Program and Chapter 17 (Zoning/Unified Development Code) in the Stanwood Municipal Code.

3. Employ the performance standards of the Master Program equitably to ensure the highest degree of shoreline and floodplain protection consistent with the proposed development.

4. Process shoreline permits as expeditiously as the law and analysis review will allow.

5. Seek advice and assistance from recognized experts at federal, state, or local levels whenever technically complex issues are involved in permit activities.

6. Grant variances from the provisions of the Master Program only in those limited instances when strict compliance with the provisions of the Master Program would prevent any reasonable use of the property involved. Variances shall be granted in strict compliance with the provisions of the Washington Administrative Code and the Shoreline Management Act.

7. Approve Conditional Uses when they will further the intent of the Master Program, be compatible with their surroundings, and be regulated to minimize undesirable effects on the shoreline of the city. Conditional Uses shall be approved in strict compliance with the provisions of the Washington Administrative Code and the Shoreline Management Act.

8. Comply with the requirements of the State Environmental Policy Act in processing shoreline permits, when applicable, as a means of thoroughly evaluating the impact or a proposed development on the city's shorelines and thus furthering the intent of the Master Program.

9. Provide assistance to the general public as necessary and proper with regard to the provisions and requirements of the Shoreline Management Act of 1971 and Stanwood's Master Program.

10. Provide for a five year review of shoreline uses and their locations as to appropriateness and compatibility with goals and policies.

CHAPTER 3 - GENERAL POLICIES AND REGULATIONS

General Regulations

The following regulations describe the requirements for all shoreline uses and activities.

1. All shoreline uses, and shoreline modification activities including those that do not require a shoreline permit, must conform to the policies and regulations of this master program.

2. Shoreline modification activities must be in support of an allowable shoreline use, which conforms to the provisions of this master program. Except as otherwise noted, all shoreline modification activities not associated with a legally existing or an approved shoreline use are prohibited.

3. Shoreline use, modification activities and conditions listed as "prohibited" shall not be eligible for consideration as a shoreline variance or shoreline conditional use permit.

4. The "policies" listed in this master program will provide broad guidance and direction and will be used by the City in applying the "regulations."

Exemptions

Although a substantial development permit is not required for construction within shoreline jurisdiction by an owner, lessee or contract purchaser of a single-family residence for his own use or the use of his family, such construction and all normal appurtenant structures must otherwise conform to this master program. An "appurtenant" means a structure that is necessarily connected to the use and enjoyment of a single-family residence and includes a garage, deck, driveway, utilities, fences and grading which does not exceed 500 cubic yards.

The Shoreline Management Act exempts from the requirement to obtain a substantial development permit the construction of any structure with a fair market value less than $2,500, which does not materially interfere with the normal public use of the waters or shorelines of the State. Although these structures are exempt from obtaining a substantial development permit, compliance with the provisions, prohibitions, regulations and development standards of this program is still required. Residential development that does not require a substantial development permit may still require a variance or conditional use permit. Developments other than a single-family residence including multi-family

residential development, all subdivisions, floating homes and nonexempt accessory structures are not exempt from obtaining a substantial development permit.

Archaeological and Historic Resources

Applicability

Archaeological areas, early communities, old settlers homes and trails were often located on shorelines because of the proximity of food resources and because water provided an important means of transportation. These sites are nonrenewable resources and many are in danger of being lost through present day changes in land use and urbanization. Because of their rarity and the educational link they provide to our past, these locations should be preserved.

Policies

1. Consult with Professional archaeologists to identify areas containing potentially valuable archaeological data, and establish procedures for salvaging the artifacts.

2. Preserve wherever feasible sites with high value for scientific study and public observation.

3. Require all shoreline permits to contain a special provision, which requires developers to notify local governments if any possible archaeological data are uncovered during excavations. The State Parks and Recreation Commission (Olympia) and the Washington Archaeological Research Center (Pullman) should also be notified.

4. Ensure that all applicable provisions of the National Historic Preservation Act of 1966 and the State Historic Preservation Act are complied with.

Regulations

1. All shoreline permits shall contain a special provision requiring permittees to notify City of Stanwood if any possible archaeological data are uncovered during excavation or development. Failure to comply with this requirement shall be considered a violation of the shoreline permit and shall subject the permittee to legal action as specified in the city's Zoning Ordinance.

2. All permits issued for development in areas known to be archaeologically significant shall provide for site inspection by a qualified archaeologist prior to initiation of any development activity.

3. All developments proposed for location adjacent to historical sites, which are registered on the state, or national historic register shall be located and designed so as to be complimentary to the historic site. Development, which is detrimental to the historic character of such sites shall not be permitted.

Clearing and Grading

Clearing and grading are activities associated with developing property for a particular use including commercial, industrial, recreational and residential uses. Specifically, "clearing" means the destruction or removal of vegetative ground cover and/or trees including, but not limited to, root material removal and/or topsoil removal. This includes such activities as clear-cutting or selective harvest of trees, chipping of stumps and hauling off of shrubs, slash piles, etc. "Grading" means the physical manipulation of the earth's surface and/or surface drainage pattern without significantly adding or removing on-site materials. This includes removing the duff layer, all surcharging, preloading and recontouring the ground and may include minor excavation and filling. Landfill addresses the placement of dry fill on existing dry or existing wet areas (see Section 6 "Landfill").

Both activities, clearing and grading, may increase erosion, siltation, runoff/flooding, change drainage patterns, reduce flood storage capacity and damage habitat. Although it is not technically considered "development" which triggers a shoreline permit, clearing as an activity that impacts shoreline resources is regulated in order to achieve the design goals and objectives of the SMA, particularly along Shorelines of State Wide Significance where preservation of natural shoreline characteristics takes a very high priority. All policies and standards must be adhered to and a conditional use requirement may be required where appropriate (e.g. in natural and conservancy). Grading is considered development and will be managed accordingly. For single-family residences, 500 cubic yards of fill may be allowed without a shoreline permit provided all policies and regulations are met.

Policies

1. All clearing and grading activities should be designed and conducted to minimize impacts to wildlife habitat, sedimentation of creeks, streams, ponds, lakes, wetlands and other water bodies and degradation of water quality.

2. Clearing and grading activities in shoreline areas should be limited to the minimum necessary to accommodate shoreline development. Such activities should be discouraged in designated (structural) setback areas and allowed in other shoreline locations only when associated with a permitted shoreline development.

3. Negative environmental and shoreline impacts of clearing and grading should be avoided wherever possible through proper site planning, construction timing and practices, bank stabilization, bioengineering and use of erosion and drainage control methods as well as adequate maintenance.

4. Cleared and disturbed sites remaining after completion of construction should be promptly replanted with native vegetation or, in limited circumstances, with other species contained in City approved plant lists.

5. All clearing and grading activities should be designed with the objective of maintaining natural diversity in vegetation species, age and cover density.

6. For extensive clearing and grading proposals, a clearing and grading plan addressing species removal, replanting, irrigation, erosion and sedimentation control and other methods of riparian corridor protection should be required.

Regulations

1. All clearing and grading activities shall be limited to the minimum necessary for the intended development, including residential development.

2. Clearing and grading within designated shoreline (structural) setback areas (or vegetation management corridors, depending on how the SMP is structured) shall not exceed the following maximums (all measurements taken parallel to the shoreline):

    a. Lots, parcels with up to 200 feet of shoreline frontage: 50 feet maximum.

    b. Lots, parcels with greater than 200 feet of shoreline frontage: maximum of 25 percent of the lot frontage along a shoreline.

    c. When applying the above clearing and grading standards the following plant communities shall determine in descending order of preference where clearing and grading may be allowed. The first plant community listed indicates the most preferred location for clearing and grading:

        i. grass

        ii. shrub/scrub

        iii. forest

3. Clearing and grading activities may only be permitted (landward of required setbacks) when associated with a permitted shoreline development, PROVIDED that upon completion of construction, remaining cleared areas shall be replanted with native species contained in the City approved plant list. Replanted areas shall be maintained such that within three-years the vegetation is fully reestablished.

4. Normal nondestructive pruning and trimming of vegetation for maintenance purposes shall not be subject to these clearing and grading regulations. In addition, clearing by hand held equipment of invasive nonnative shoreline vegetation or plants listed on the State Noxious Weed List is permitted in shoreline locations if native vegetation is promptly reestablished in the disturbed area.

5. Any significant placement of materials from off-site, (other than surcharge or preload) or substantial creation or raising of dry upland shall be considered landfill and shall also comply with the landfill provisions in Chapter 8, Shoreline Modification Activity Policies and Regulations.

Environmental Impacts

Applicability

The SMA is concerned with the environmental impacts that both a use and activity may have on the fragile shorelines of the state. Shoreline and water quality degradation caused by the introduction of contaminants such as petroleum products, chemicals, solid waste, domestic or industrial wastewater and sediment from erosion are all issues that must be addressed.

Policies

1. Land uses and activities that may have adverse impacts on the environment should be minimized during all phases of development (e.g. design, construction, management and use).

Regulations

1. The location, design, construction and management of all shoreline uses and activities shall protect the quality and quantity of surface and ground water adjacent to the site and shall adhere to the guidelines, policies, standards and regulations of applicable water quality management programs and related regulatory agencies.

2. Solid and liquid wastes and untreated effluents shall not be allowed to enter any bodies of water or to be discharged onto land.

3. The release of oil, chemicals or hazardous materials onto land or into the water is prohibited. Equipment for the transportation, storage, handling or application of such materials shall be maintained in safe and leak proof condition. If there is

evidence of leakage, the further use of such equipment shall be suspended until the deficiency has been satisfactorily corrected.

4. All shoreline uses and activities shall be located, designed, constructed and managed in a manner that minimizes adverse impacts to surrounding land and water uses and is aesthetically compatible with the affected area.

5. All shoreline uses and activities shall utilize best management practice (BMP) measures to minimize any increase in surface runoff and to control, treat and release surface water runoff so that receiving water quality and shore properties and features are not adversely affected. Such measures may include but are not limited to dikes, catch basins or settling ponds, installation and required maintenance of oil/water separators, grassy swales, interceptor drains and landscaped buffers.

6. All shoreline uses and activities shall utilize effective erosion control methods during both project construction and operation.

7. All shoreline uses and activities shall be located, designed, constructed and managed to avoid disturbance of and minimize adverse impacts to fish and wildlife resources, including spawning, nesting, rearing and habitat areas and migratory routes.

8. All shoreline uses and activities shall be located, designed, constructed and managed to minimize interference with beneficial natural shoreline processes such as water circulation, sand and gravel movement, erosion and accretion.

9. Land clearing, grading, filling and alteration of natural drainage features and land forms shall be limited to the minimum necessary for development. Surface drainage systems or substantial earth modifications involving greater than 500 cubic yards of material shall be professionally designed to prevent maintenance problems or adverse impacts to adjacent properties or shoreline features.

10. All shoreline developments shall be located, constructed and operated so as not to be a hazard to public health and safety.

11. All shoreline uses and activities shall be located and designed to minimize or prevent the need for shoreline defense and stabilization measures and flood protection works such as bulkheads, other bank stabilization, landfills, levees, dikes, groins, jetties or substantial site regrades.

12. Navigation channels shall be kept free of hazardous or obstructing uses and activities.

13. Herbicides and pesticides shall not be applied or allowed to directly enter water bodies or wetlands unless approved for such use by appropriate agencies (U.S. and State Departments of Agriculture, U.S. Environmental Protection Agency, Washington State Department of Ecology).

Environmentally Sensitive Areas

Applicability

Environmentally sensitive areas, which are listed in the Stanwood Municipal Code, constitute the most fragile lands which support resources that are economically and culturally important to the state under the SMA. They can be natural resources that provide fisheries habitat for example, or areas that may threaten the health and safety of the public, such as floodways or unstable bluffs, etc. This section is divided into five categories: (1) general provisions, (2) geological hazard area provisions, (3) kelp beds, eelgrass beds, herring spawning areas, smelt spawning areas and other critical salt water habitats (4) wetland provisions and (5) salmon and steelhead habitat provisions.

"Environmentally sensitive areas" shall mean those areas with especially fragile biophysical characteristics and/or with significant environmental resources as identified in a scientifically documented inventory accomplished as part of the SEPA/NEPA process or other recognized assessment. Environmentally sensitive areas include but are not limited to:

- unstable bluffs
- wildlife habitat areas
- fish breeding, rearing or feeding areas
- wetlands
- estuaries
- dunes

General Provisions

Policies

1. Unique, rare and fragile natural and man-made features as well as scenic vistas and wildlife habitats should be preserved and protected from unnecessary degradation or interference.

2. Some areas, because of unique and/or fragile geological or biological characteristics, should be protected from public access (e.g. wetlands, dunes, shoregrass, etc.).

3. Shorelines that are identified as hazardous for or sensitive to development should be discouraged from intensive development.

Regulations

1. All shoreline uses and activities shall be located, designed, constructed and managed to protect and / or not adversely affect those natural features which are valuable, fragile or unique in the region and to facilitate the appropriate human intensity of use of such features, including but not limited to:

a. Estuaries and wetlands;

b. Fish, shellfish and wildlife habitats, migratory routes and spawning areas;

c. Kelp beds, eelgrass beds, herring spawning areas and smelt spawning areas;

d. Accretion shore forms;

e. Natural or man-made scenic vistas or features;

f. Unstable bluffs; and

g. Floodways.

2. When a development site encompasses environmentally sensitive areas, these features shall be left intact and maintained as open space or buffers. All development shall be set back from these areas to prevent hazardous conditions and property damage, as well as to protect valuable shore features.

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

4. Areas with either an existing or high potential for aquaculture activities shall be protected from degradation by other types of uses which are located or are proposed to be located within 1 mile of adjacent uplands. A conclusive finding that such an adjacent use would result in irreparable damage to or destruction of an existing aquaculture enterprise shall be grounds for the denial of such use or activity.

5. The use of herbicides and pesticides to remove noxious plants in streams, lakes and wetland areas shall be prohibited except where no reasonable alternatives exist and it is demonstrated that such activity is in the public interest. Mechanical removal of noxious weeds shall be timed and carried out in a manner to minimize any disruption of wildlife or habitat.

Geological Hazard Areas

Applicability

Geological hazard areas are areas susceptible to severe erosion or slide activity, such as unstable bluffs, and include areas with high potential for earthquake activity. They may be identified in GMA Critical Area documents or the *Coastal Zone Atlas*. In general, they are not suitable for placing structures or locating intense activities or uses due to the inherent threat to public health and safety.

Policies

1. Development should be prohibited or minimized on unstable or moderately unstable slopes.

2. Development should be permitted only in locations where no slope protection is necessary or where nonstructural protection is sufficient for the life of the project.

3. Clearing vegetation on and within edges of bluffs should be avoided. Retention of a natural buffer should be encouraged.

4. Construction should be discouraged within a 2:1 slope (a slope that rises 1 foot for every 2 feet horizontal) from the base of the bluff.

5. Structures should be designed and constructed in a manner that provides safety for the useful life of the structure and does not require construction of a retaining wall or bulkhead during that same time span.

6. Subdivision of lots on bluffs should allow sufficient lot depth for development to occur without need for bulkheading or other structural stabilization.

7. All sites indicated in the *Coastal Zone Atlas*, local sensitive area maps or other engineering documents to be on unstable material, river banks or old landslides shall require a geotechnical report assessing the safety of the site and addressing drainage, grading and clearing requirements.

Regulations

1. Construction activity shall not increase or result in slope instability or sloughing.

2. Tree clearing and vegetation removal shall be limited to the minimum extent necessary to allow construction of the proposed development.

3. Foundations and septic systems shall be placed out of the 2:1 slope area, unless a soil engineer report indicates that slope stability will not be affected.

4. Surface drainage down the face of the bluff shall be contained in a tight line (closed, nonleaking pipe) for discharge at the shoreline in such a way that erosion will not occur.

5. Surface drainage away from the bluff shall also use a tight line or some other approved method for discharge into a natural drainage course.

6. Stormwater retention systems will be discouraged unless designed by a licensed civil engineer and a soil or geology engineering report verifies that slope stability shall not be affected.

7. Proposals for developments on or immediately adjacent to unstable bluffs shall include the following information in their application:

    a. Soils, topography and existing vegetation;

    b. Existing drainage patterns and how they may be changed;

    c. Proposed vegetation removal and grading together with an erosion control plan; and

    d. Proposed structure and use locations.

8. A geotechnical report shall be required when:

a. Activity is within 200 feet of a bluff classified as unstable or having intermediate stability; or

b. Activity is within 200 feet of the shoreline when the vertical height of the bank exceeds 20 feet; or

c. Activity is within the 2:1 slope of the toe of the bluff.

9. The geotechnical report shall contain:

a. Soils and erosion rates;

b. Drainage;

c. Vegetation management options;

d. Recommended setback to avoid need for building bulkhead during life of project;

e. Evaluation and statement on stability and safety of structure; and

f. Evaluation and statement on stability of bluff.

Kelp Beds, Eelgrass Beds, Herring Spawning Areas, Smelt Spawning Areas and Other Critical Salt Water Habitats

Applicability

The Growth Management Act, in Sections 36.70A.060 and 36.70A.170 RCW, requires local governments to designate and protect critical areas. This requirement applies both to local governments planning under the Growth Management Act and all other local governments. The Minimum Guidelines to Classify Agriculture, Forest, Mineral Lands and Critical Areas in WAC 365.190.080(5)(a)(4), designate kelp beds, eelgrass beds, herring spawning areas and smelt spawning areas as critical areas. The minimum guidelines also designate commercial and recreational shellfish areas as critical areas.

Policies

1. Critical saltwater habitats provide critical rearing and nursery areas for valuable recreational and commercial species. They provide habitat for many marine plants, fish and animals. These habitats should be protected because of their importance to the marine ecosystem and the state and local economy.

2. Critical salt water habitats are:

a. Kelp beds (members of the brown algal family Laminariales, including Alaria marginata, Alaria nana, Alaria tenuifolia, Egregia menziesii, Eisenia arborea, Pterygophora californica, Agarum cribosum, Agarum fimbriatum, Costaria costata, Cymathere triplicata, Hedophyllum sessile, Laminaria spp., Pleurophycus gardneri, Dictyoneuropsis reticulata, Dictyoneurum californicum, Lessioniopsis littoralis, Macrocystis integrifolia, Nereocystis luetkeana and Postelsia palmaeformis). Kelp

beds are found in marine and estuarine intertidal and subtidal areas with a depth of up to 15 meters below mean lower low water (MLLW). The beds can be found on various bottom materials including rocks, boulders, mixed-fines (mixed sand and mud with little gravel), mixed coarse (mixed cobbles, gravel, shell and sand) and cobble.

b. Eelgrass beds (Zostera spp.). Eelgrass beds are found in marine and estuarine intertidal and subtidal areas. Zostera marina tends to favor the lower parts of intertidal areas and Zostera japonica, higher elevation parts. Zostera spp. are generally found no deeper than 4 meters below mean lower low water (MLLW). Zostera spp. beds can be found on mud bottoms, sand bottoms and mixed-fine (mixed sand and mud with little gravel) bottoms. Zostera has also been found in subtidal areas with beds of finer material offshore of mixed coarse (mixed cobbles, gravel, shell and sand) intertidal areas.

c. Surf smelt (Hypomesus pretiosus) spawning beds. Surf smelt spawning beds are located in the upper portions of sand or gravel beaches (intertidal areas) on salt water.

d. Pacific herring (Clupea harengus pallasi) spawning beds. Pacific herring spawning beds include the lower portions of salt water beaches (intertidal areas), eelgrass beds, kelp beds, other types of salt water vegetation such as algae and other bed materials such as subtidal worm tubes.

e. Pacific sand lance (Ammodytes hexapterus) spawning beds. Pacific sand lance spawning beds are located in the upper portions of sand or gravel beaches (intertidal areas) on salt water.

f. Rock sole (Lepidopsetta bilineata) spawning beds. Rock sole spawning beds are located in the upper and middle portions of sand or gravel beaches (intertidal areas) on salt water.

g. Rockfish (Sebastes spp.) settlement and nursery areas. Rockfish settlement and nursery areas are located in kelp beds, in eelgrass beds, on other types of salt water vegetation and on other bed materials.

h. Lingcod (Ophiodon elongatus) settlement and nursery areas. Lingcod settlement and nursery areas are located on beaches (intertidal areas) and subtidal areas with beds of sand, eelgrass, subtidal worm tubes or other bed materials.

i. Shellfish beds. The following shellfish beds are included: the Pacific oyster (Crassostrea gigas), the Olympia oyster (Ostrea lurida), the razor clam (Silqua patula), the native little neck clam (Protothaca staminea), the Manila clam (Venerupis japonica), the butter clam (Saxidomus giganteus), the Geoduck (Panope generosa), the horse clam (Schizothaerus nuttalli and Schizothaerus capax), the cockle (Clinocardium nuttalli), the macoma (Macoma spp.) and the eastern soft shell clam (Mya arenaria).

    1) Pacific oyster beds occur on almost every type of salt water beach between the high and low tide marks.

    2) Olympia oyster beds occur on mud or gravel flats near estuaries or in tide pools near low tide level.

3) Razor clam beds occur on the intertidal areas of surf-swept sandy beaches on the open ocean. Beds can be found to several meters below the intertidal zone in the open ocean.

4) Native little neck clam beds are found on gravel-mud beaches of protected salt water bays. The clams are concentrated at about the half-tide level, but occur down to the subtidal level.

5) Manila calm beds occur in muddy gravel on salt water beaches above the half tide level.

6) Butter clam beds occur on well protected sand-gravel beaches, chiefly on the lower third of the tidal range. Butter clams have been found as deep as 10 meters below mean sea level.

7) Geoduck beds occur on sand and mud substrates from intertidal areas to deep water.

8) Horse clam beds occur on sandy bottoms and gravely bottoms from extreme low tide into subtidal areas in salt water.

9) Cockle beds occur on sand-mud beaches on salt water in both the intertidal zone and deep water. Cockle beds are also often found in eelgrass flats.

10) Macoma beds occur in mud and sand in protected salt water areas. Their range extends from intertidal areas to water as deep as 50 meters.

11) Eastern soft shell clam beds occur in sand and mud at high tidal elevations, mainly in estuaries.

3. Except for public or semipublic facilities where no alternative location is available uses, activities and structures shall not be located in critical saltwater habitats.

4. Developments within or adjacent to critical salt water habitats should not directly or indirectly change the composition of the beach and bottom substrate. Habitat enhancement and restoration projects may change beach or bottom substrata when appropriate to restore or enhance habitats.

5. Developments outside critical salt water habitats but which have the potential to significantly affect these habitats should be located and designed so they do not create significant negative impacts on critical salt water habitats.

6. Livestock should be prevented from access to surface water in areas which drain to shellfish beds listed in policy 1. Livestock may be given access to surface water for drinking if the watering area is developed to reduce bank erosion and affects only a limited area of the bank.

7. Where uses, activities, structures and landfills must locate where they will affect critical salt water habitats, the project should be designed and constructed to minimize adverse impacts on the environment and the critical salt water habitats.

8. Project proponents should contact the Habitat Management Division of the Department of Fisheries and the Aquatic Lands Program of the Department of Natural Resources early in the development process to determine if the available data show the proposal will occur in a known critical salt water habitat.

9. When reviewing permits for uses, activities and structures in salt water areas waterward of the ordinary high water mark (OHWM), staff should contact the Habitat Management Division of the Department of Fisheries and the Aquatic Lands Program of the Department of Natural Resources to determine if the proposal will occur in a known critical salt water habitat.

10. A project proponent shall conduct a reconnaissance study to determine whether critical salt water habitats are present within an area affected by a proposed development as provided below.

    a. For areas which may be used by fish which spawn on sand, gravel, or sand and gravel beaches and shellfish beds, the project proponent shall conduct a reconnaissance study to determine whether critical salt water habitats are present within an area affected by a proposed development if all of the following conditions are met:

        1) The proposed use or activity has a significant potential to adversely affect a critical salt water habitat.

        2) The beach which the development or use may affect is the type of environment in which a critical salt water habitat typically occurs.

        3) The existing data available from the resource agencies do not show that the site is not occupied by a critical salt water habitat.

    b. For kelp beds, eelgrass beds, rockfish settlement and nursery areas and lingcod settlement and nursery areas, a project proponent shall conduct a reconnaissance study to determine whether critical salt water habitats are present within an area affected by a proposed development if all of the following conditions are met:

        1) The proposed use or activity has a significant potential to adversely affect a critical salt water habitat.

        2) The salt water area which the development or use may affect is the type of environment in which a critical salt water habitat may occur.

    c. For all areas, the study should be designed in consultation with the local government, affected state and federal resource agencies and affected Indian Nations. The study should take place during the growing season.

Regulations

1. Landfills shall not intrude into critical salt water habitats.

2. Bulkheads and shoreline modification and stabilization structures shall not intrude into critical salt water habitats, except as provided in regulation 5 below. Where an existing bulkhead or structure cannot be removed because of environmental, safety, or geological concerns, the least environmentally impacting alternative shall be used. Any replacement bulkhead or shoreline protection structure shall be as close the existing structure as possible.

3. Marinas and over-water residences of any type (including floating homes, houseboats and liveaboards) shall not be located over critical salt water habitats. These facilities shall be designed and located to avoid impacts to nearby critical salt water habitats.

4. Floats, rafts, docks and boathouses shall not be located over critical salt water habitats, except as provided in regulation 5 below. Floats, rafts, docks, boathouses and associated moorings shall not shade eelgrass, algae and other saltwater vegetation. Anchoring systems for these structures shall not adversely affect critical salt water habitats.

5. Industrial docks, commercial and industrial vessel moorage, navigation channels, breakwaters, jetties, groins and public shoreline protection structures shall not intrude into critical salt water habitats unless the proponent shows all of the following conditions are met:

    a. An alternative alignment is not feasible.

    b. The project is designed to minimize its impacts on critical salt water habitats and the environment.

    c. Any adverse impacts will be mitigated.

    d. The facility is in the public interest.

6. Publicly owned recreational facilities such as boat launches shall avoid critical salt water habitats. Where these areas cannot be avoided, publicly owned recreational facilities shall be designed to minimize their impacts on critical salt water habitats and mitigate any adverse impacts.

7. Anchorage and mooring floats shall not be located over critical salt water habitats.

8. In-water dredge spoil disposal sites shall be prohibited in critical salt water habitats or in locations where the disposal of dredge spoil materials is likely to result in the deposition of sediments on critical salt water habitats.

9. Aquaculture uses shall not be established in or expanded into or over critical salt water habitats.

10. Except as a habitat improvement or restoration measure, aquatic herbicide treatments, mechanical removal of vegetation and aquatic pesticide treatments shall not be used on critical salt water habitats. Where alternative management methods will not work, Zostera japonica may be removed from areas currently used for aquaculture.

11. Bridges, causeways and in-water utility corridors shall not intrude into or adversely affect critical salt water habitats unless the proponent shows all of the following conditions are met:

    a. An alternative alignment is not feasible.

    b. The project is designed to minimize its impacts on critical salt water habitats and the environment.

    c. Any adverse impacts will be mitigated.

    d. The facility is in the public interest.

12. Sand, gravel, or other materials shall not be mined or removed from critical salt water habitats or areas where the activity will adversely affect critical salt water habitats.

13. Outfalls and discharge pipes shall not be located in critical salt water habitats or areas where outfall or discharge will adversely affect critical salt water habitats. unless the proponent shows all of the following requirements are met:

    a. There is no alternative location for the outfall or pipe.

    b. The outfall or pipe is placed below the surface of the beach or bed of the water body.

    c. The outfall discharges waterward of the subtidal zone.

    d. The disturbed area is revegetated, if it was vegetated before construction.

    e. The discharge point(s) on the outfall or discharge pipe is located so the discharges, including nutrients in the discharge and currents, do not adversely affect critical salt water habitats.

Wetlands

Applicability

The following provisions apply to all wetlands delineated according to the *Washington State Identification and Delineation Manual, March, 1997, Publication No. 96-94.*

Policies

1. Wetlands serve many important ecological and environmental functions, and help to protect public health, safety and welfare by providing flood storage and conveyance, erosion control, sediment control, fish and shellfish production, fish and wildlife habitat, recreation, water quality protection, water supply, education and scientific research. Wetlands should be preserved and protected to prevent their continued loss and degradation.

2. Wetland areas should be identified according to established identification and delineation procedures and afforded appropriate protection consistent with the policies and regulations of this program.

3. All wetlands should be protected from alterations that adversely impact them so that there is no net loss of wetland acreage and functions. The greatest protection should be provided to wetlands of exceptional resource value, defined as those wetlands that include rare, sensitive or irreplaceable systems such as:

    a. Documented or potential habitat for an endangered, threatened or sensitive species;

    b. High-quality native wetland systems;

    c. Significant habitat for fish or aquatic species as determined by the appropriate state resource agency;

    d. Diverse wetlands exhibiting a high mixture of wetland classes and subclasses as defined in the U.S. Fish and Wildlife Service classification system;

e. Estuarine wetlands, kelp beds or eelgrass beds.

4. A wetland buffer zone of adequate width should be maintained between a wetland and any adjacent development to protect the functions and integrity of the wetland.

5. The width of the established buffer zone should be based upon the functions and sensitivity of the wetland, the characteristics of the existing buffer and the potential impacts associated with the adjacent land use.

6. All activities that potentially affect wetland ecosystems should be controlled within both the wetland and the buffer zone to prevent adverse impacts.

7. No wetland alteration should be authorized unless it can be shown that the impact is both unavoidable, necessary and minimized and that any remaining impacts are offset through the deliberate restoration, creation or enhancement of wetlands.

8. Wetland restoration, creation and enhancement projects should result in no net loss of wetland acreage and functions. Where feasible, wetland quality should be improved.

9. Wetlands, which are impacted by activities of a temporary nature, should be restored immediately upon project completion.

10. In-kind replacement of functions and values is preferred. Where in-kind replacement is not feasible or practical due to the characteristics of the existing wetland, substitute resources of equal or greater ecological value should be provided.

11. On-site replacement of wetlands is preferred. Where on-site replacement is not feasible or practical due to characteristics of the existing location, replacement should occur within the same watershed and proximity.

12. Wetland restoration, creation and enhancement projects should be completed prior to wetland alteration, where possible. In all other cases, replacement should be completed prior to use or occupancy of the activity or development.

13. Applicants should develop comprehensive mitigation plans in order to ensure long term success of the mitigation project. Such plans should provide for sufficient monitoring and contingencies to ensure wetland persistence.

14. Applicants should demonstrate sufficient scientific expertise, supervisory capability and financial resources to complete and monitor the mitigation project.

15. Proposals for restoration, creation or enhancement should be coordinated with appropriate resource agencies to ensure adequate design and consistency with other regulatory requirements.

16. Activities should be discouraged in wetland buffer zones except where such activities have no adverse impacts on wetland ecosystem functions or when necessary to provide for a reasonable use of the property.

17. Wetland buffer zones should be retained in their natural conditions unless revegetation is necessary to restore the buffer.

18. Wetland buffer zones should be reserved as common open space and designated as "native growth protection areas" where multiple ownership is involved and cooperative management is possible.

19. The City does not intend to deny all economic use of any property subject to these policies and regulations, except as the public trust doctrine would limit the use of the property. This policy will be implemented through the appropriate application of the following: project design standards, transfers of development rights, mitigation and variances.

Regulations

1. For identifying and delineating a wetland (marsh, bog or swamp), applicants shall use the *Washington State Identification and Delineation Manual, March 1997, Publication No. 96-94.*

2. No development or activity including removing or disturbing soil, filling, changing the water level, placing obstructions, constructing a structure, destroying or altering vegetation or introducing pollutants may be permitted within a wetland or its buffer unless authorized by a conditional use permit.

3. Development or activities shall not be authorized in a wetland except where it can be demonstrated that;

    a. The impact is both unavoidable and necessary;

    b. Unavoidable and necessary impacts are minimized, and any remaining impacts are offset through the deliberate restoration, creation or enhancement of wetlands of equivalent or greater resource value, including acreage and function;

    c. The restored, created or enhanced wetland will be as persistent as the wetland it replaces; and

    d. The applicant demonstrates sufficient scientific expertise, supervisory capability and financial resources to carry out the proposed replacement activity.

4. For wetlands of exceptional resource value, the applicant, in addition to complying with the provisions above, shall demonstrate that:

    a. There is a compelling public need for the proposed activity; or

    b. That denial of the permit would impose an extraordinary hardship on the applicant brought about by circumstances peculiar to the subject property.

5. In-kind replacement of functions and values shall be provided, unless it is found that in-kind replacement is not feasible or practical due to the characteristics of the existing wetland and a greater environmental benefit can be demonstrated by an alternative. In such cases, substitute resources of equal or greater ecological value shall be provided.

6. Wetland functions and values shall be calculated using the best professional judgment of a qualified wetland ecologist using the best available technology.

7. On-site replacement shall be provided, unless it is found that on-site replacement is not feasible or practical due to physical features of the property and a greater environmental benefit can be demonstrated by an alternative. In such cases, replacement shall occur within the same watershed and proximity.

8. Except as noted in regulation 9 below, at a minimum, wetland acreage shall be replaced at a ratio of acreage replaced to acreage lost of 1.25:1. For wetlands of exceptional resource value, the minimum acreage replacement ratio shall be 6:1. Actual replacement acreage will be determined case-by-case, based on the following criteria:

    a. Projected losses or gains in wetland functions and value;

    b. Location of replacement wetlands;

    c. The time required to reestablish lost functions;

    d. The uncertainty of the probable success of the project; and

    e. The type of compensation (enhancement proposals shall require twice the acreage replacement as restoration and creation proposals); and

    f. Variety of the wetland type being impacted.

9. Acreage replacement may be authorized at 1:1 where it is found through special studies coordinated with agencies with expertise, or through advance compensation, that no net loss of wetland function results.

10. Replacement wetlands shall be completed prior to or concurrent with wetland alteration, and immediately after activities that will temporarily disturb wetlands activities.

11. A compensation plan shall be required for developments or activities which result in unavoidable and necessary wetland alterations. The plan shall include the following elements:

    a. Baseline information for the impacted wetland and the proposed replacement site;

    b. Environmental goals and objectives describing the purposes of the mitigation measures, a description of the site selection criteria and identification of target evaluation species and resource functions;

    c. Performance standards including specific criteria for fulfilling goals and objectives and for beginning remedial action or contingency measures;

    d. Detailed construction plan including work schedule, revegetation information, buffers, estimated cost, site plan with contours and elevation and other information;

e. Monitoring program outlining the approach for assessing a completed project over a five-year period. A report shall be submitted annually, at a minimum documenting milestones, success, problems and contingency actions; and

f. Contingency plan identifying potential courses of action and any corrective measures to be taken when monitoring or evaluation indicates project performance standards are not being met.

12. Where restoration, creation or enhancement activities are proposed, the applicant shall be required to:

a. File a performance bond in an amount to enable the regulatory authority to carry out the compensation plan should the applicant fail to do so; and

b. Compensation areas shall be permanently protected through legal instruments such as sensitive area tracts, conservation easements or a comparable use restriction.

13. Wetland buffers shall be as provided for in the Streams and Wetlands Standards (SMC Chapter 17.125) as follows:
    a. Category 1 wetlands – 100 feet
    b. Category 2 wetlands – 75 feet
    c. Category 3 wetlands – 50 feet
    d. Category 4 wetlands – 25 feet

14. Wetland buffer zones shall be retained in their natural condition. Where buffer disturbance has occurred during construction, revegetation with native vegetation shall be required. Developments and activities shall not be allowed within the buffer except for:

a. Minor activities which are found to have no adverse impact on the wetland functions or integrity;

b. Linear developments having no feasible alternative location outside of the buffer.

15. The location of all required buffer zones shall be clearly and permanently marked on any project site prior to initiation of site work.

16. Stormwater entering designated wetlands must be pretreated to meet water quality standards.

Salmon and Steelhead Habitats

Applicability

In addition to these provisions, several other chapters of this shoreline master program contain policies and regulations which protect salmon and steelhead habitats. They include the sections on forestry, clearing and grading, wetlands, vegetation management, shoreline modification, water quality and floodplains. Applicants should consult these sections as well as this section.

Policies

1. Salmon and steelhead habitats support valuable recreational and commercial fisheries. These habitats should be protected because of their importance to the aquatic ecosystem and the state and local economy.

2. Salmon and steelhead habitats are:

    a. Gravel bottomed streams creeks and rivers used for spawning;

    b. Streams, creeks, rivers, side channels, ponds, lakes and wetlands used for rearing, feeding and cover and refuge from predators and high waters;

    c. Streams, creeks, rivers, estuaries and salt water bodies used as migration corridors; and

    d. Shallow areas of salt water bodies used for rearing, feeding and refuge from predators and currents.

3. Non-water-dependent or non-water-related uses, activities, structures and landfills should not be located in salmon and steelhead habitats.

4. Where alternative locations exist water-dependent and water-related uses, activities, structures and landfills should not be located in salmon and steelhead habitats.

5. Where uses, activities, structures and landfills must locate in salmon and steelhead habitats, impacts on these areas should be lessened to the maximum extent possible. Significant unavoidable impacts should be mitigated by creating in-kind replacement habitat near the project where feasible. Where in-kind replacement mitigation is not feasible, rehabilitating degraded habitat may be required. Mitigation proposals should be developed in consultation with the affected local government, the Department of Fisheries, the Department of Wildlife and affected Indian Nations.

6. Developments which are outside salmon and steelhead habitats but which have the potential to significantly affect these habitats should be located and designed so they do not create significant negative impacts on salmon and steelhead habitats.

7. Bioengineering is the preferred bank protection technique for rivers and streams used by salmon and steelhead.

8. Floating structures and open pile structures are preferred over landfills or solid structures in water areas used by salmon and steelhead.

9. Open pile bridges are preferred for crossing water areas used by salmon and steelhead.

10. Impervious surfaces shall be minimized in upland developments to reduce stormwater runoff peaks. Structures and uses creating significant impervious surfaces shall include stormwater detention systems to reduce stormwater runoff peaks.

11. The discharge of silt into waterways shall be minimized during in-water and upland construction.

12. Adopt-A-Stream programs and similar efforts to rehabilitate salmon and steelhead spawning streams are encouraged.

13. Fishery enhancement projects are encouraged where they will not significantly interfere with other beneficial uses.

14. The agriculture, forestry, clearing and grading, wetlands, riparian corridors, vegetation management, shoreline modification, instream structures and water quality sections of this shoreline master program contain policies and regulations which protect salmon and steelhead habitats. Uses and activities proposed for shoreline areas should comply with all applicable policies and regulations of this shoreline master program.

15. Project proponents should contact the Habitat Management Division of the Department of Fisheries, the Habitat Division of the Department of Wildlife or affected Indian Nations early in the development process to determine if the proposal will occur in or adjacent to a salmon and steelhead habitat.

16. When reviewing permits for uses, activities and structures proposed for salt water areas, rivers and streams, river and stream side channels, wetlands and ponds connected to rivers and streams and shorelines adjacent to these areas; staff should contact the Habitat Management Division of the Department of Fisheries or the Habitat Division of the Department of Wildlife to determine if the proposal will occur in or affect an adjacent salmon or steelhead habitat. Staff should also contact affected Indian Nations.

Regulations

1. Structures which prevent the migration of salmon and steelhead shall not be allowed in the portions of water bodies used by these fish. Fish bypass facilities shall allow the upstream migration of adult fish. Fish bypass facilities shall prevent fry and juveniles migrating downstream from being trapped or harmed.

2. Landfills shall not intrude into salmon and steelhead habitats, except as provided in regulation 3.

3. Landfills may intrude into salt water areas used by salmon and steelhead for migration corridors, rearing, feeding and refuge only where the proponent obtains a conditional use permit (CUP) and demonstrates all of the following conditions are met:

    a. The landfill is for a water-dependent or water-related use;

    b. An alternative alignment or location is not feasible;

    c. The project is designed to minimize its impacts on the environment;

    d. The facility is in the public interest; and

e. If the project will create significant unavoidable adverse impacts, the impacts are mitigated by creating in-kind replacement habitat near the project. Where in-kind replacement mitigation is not feasible, rehabilitating degraded habitat may be required as a substitute.

4. Unless the applicant demonstrates that bioengineering techniques will not be successful, bulkheads and other shoreline protection structures are prohibited in salmon and steelhead habitat.

5. Where bulkheads and other shoreline protection structures are allowed, the toe of the bulkhead or structure shall be located landward of the ordinary high water mark except as provided in regulation 6 below. Where an existing bulkhead or structure cannot be removed because of environmental, safety, or geological concerns, the least environmentally impacting alternative shall be used. Any replacement bulkhead or shoreline protection structure shall be as close to the existing structure as possible. Also see the Shoreline Modification Policies and Regulations and the bulkhead and shore protection structure policies for Critical Salt Water Habitats of this master program.

6. Bulkheads, breakwaters, jetties, groins and other shoreline protection structures may intrude into salmon and steelhead habitats only where the proponent demonstrates all of the following conditions are met:

   a. An alternative alignment or location is not feasible;

   b. The project is designed to minimize its impacts on the environment;

   c. The facility is in the public interest; and

   d. If the project will create significant unavoidable adverse impacts, the impacts are mitigated by creating in-kind replacement habitat near the project. Where in-kind replacement mitigation is not feasible, rehabilitating degraded habitat may be required as a substitute.

7. Docks, piers, pilings and floats may be located in water areas used by salmon and steelhead for migration corridors, rearing, feeding and refuge, provided the facilities use open piling construction. Approach fills shall be located landward of the ordinary high water mark. Docks, piers, pilings and floats shall not be located in other salmon and steelhead habitats. The project shall be designed to minimize its impacts on the environment.

8. Open pile bridges are the preferred water crossing structures over salmon and steelhead habitats. If a bridge is not feasible, one of the following water crossing structures may be approved if the impacts are acceptable: temporary culverts, bottomless arch culverts, elliptical culverts or round culverts. These structures are listed in priority order, with the first having the highest preference and the last the lowest preference. In order for a lower priority structure to be permitted, the applicant must show the higher priority structures are not feasible. The project shall be designed to minimize its impacts on the environment.

9. Bridges and in-water utility corridors may be located in salmon and steelhead habitat provided the proponent shows that all of the following conditions are met:

   a. An alternative alignment is not feasible;

b. The project is located and designed to minimize its impacts on the environment;

c. Any alternative impacts are mitigated; and

d. Any landfill is located landward of the ordinary high water mark. Open piling and piers required to construct the bridge may be placed waterward of the ordinary high water mark, if no alternative method is feasible. Notwithstanding regulations 4 and 12, when installing in-water utilities, the installer may place native material on the bed and banks of the water body or wetland to reestablish the preconstruction elevation and contour of the bed. The project shall be designed to minimize its impacts on the environment.

10. Dredging which will damage shallow water habitat used by salmon and steelhead for migration corridors, rearing, feeding and refuge shall not be allowed unless the proponent demonstrates all of the following conditions are met:

    a. The dredging is for a water-dependent or water-related use;

    b. An alternative alignment or location is not feasible;

    c. The project is designed to minimize its impacts on the environment;

    d. The facility is in the public interest; and

    e. If the project will create significant unavoidable adverse impacts, the impacts are mitigated by creating in-kind replacement habitat near the project. Where in-kind replacement mitigation is not feasible, rehabilitating degraded habitat may be required as a substitute.

11. Dredging and the removal of bed materials below the water line is prohibited within salmon and steelhead spawning areas. River bar gravel mining may be allowed as provided in regulation 13.

12. River bar gravel mining may be allowed where the proponent demonstrates all of the following conditions are met:

    a. The gravel removed from the river or stream does not exceed the average annual recruitment of bedload material. Additional gravel may be removed where the applicant can demonstrate the channel capacity has been significantly reduced.

    b. The gravel is removed from the area between the existing water level and the permanently vegetated portions of the bank.

    c. The project will not cause any adverse impacts on salmon and steelhead habitat, especially through increased sedimentation.

13. Projects which propose water withdrawals or diversions shall maintain adequate flows within the water body to maintain salmon and steelhead habitat, taking into account existing and likely future withdrawals and diversions.

14. In-water dredge spoil disposal sites shall not be located in salmon and steelhead habitats.

15. Landfilling, dredging, channelization and other activities which negatively impact habitat values are prohibited in wetlands, ponds and side channels which provide refuge or other habitat for salmon or steelhead.

16. Within salmon and steelhead habitats, permanent channel changes and realignments are prohibited.

17. Aquaculture uses shall not be established in or expanded in salmon and steelhead habitat, except for areas that are only used for migration corridors. This regulation only applies to in-water aquaculture uses, not upland aquaculture uses.

18. The removal of aquatic and riparian vegetation within or adjacent to salmon and steelhead habitats shall be minimized. Trees that shade side channels, streams, rivers, ponds and wetlands used by salmon and steelhead shall be maintained. Areas of disturbed earth shall be revegetated.

19. Unless removal is needed to prevent hazards to life and property or to enhance fish habitat, large woody debris below the ordinary high water mark shall be left in the waterway to provide salmon and steelhead habitat.

20. Outfalls within or upstream of salmon or steelhead spawning areas shall be designed and constructed to minimize disturbance of salmon and steelhead.

Parking

Applicability

Parking is the temporary storage of automobiles or other motorized vehicles. Except as noted the following provisions apply only to parking that is "accessory" to a permitted shoreline use. Parking as a "primary" use and parking which serves a use not permitted in the shoreline jurisdiction is prohibited.

Policies

1. Parking in shoreline areas should directly serve a permitted shoreline use.

2. Parking facilities should be located and designed to minimize adverse impacts including those related to stormwater runoff, water quality, visual qualities, public access and vegetation and habitat maintenance.

3. Parking should be planned to achieve optimum use. Where possible, parking should serve more than one use (e.g. serving recreational use on weekends, commercial uses on weekdays).

Regulations

1. Parking as a primary use shall be prohibited over water and within shoreline jurisdiction.

2. Parking in shoreline jurisdiction shall directly serve a permitted shoreline use.

3. Parking facilities shall be designed and landscaped to minimize adverse impacts upon adjacent shoreline and abutting properties. Landscaping shall consist of native vegetation and be planted before completion of the parking area in such a manner that plantings provide effective screening within three years of project completion.

4. Parking facilities serving individual buildings on the shoreline shall be located landward from the principal building being served. The only exceptions to this would be when the parking facility is within or beneath the structure and adequately screened, or in cases when an alternate location would have less environmental impact on the shoreline and in all cases is prohibited over the water.

5. Parking facilities for shoreline activities shall provide safe and convenient pedestrian circulation within the parking area and to the shorelines.

6. Parking facilities shall provide adequate facilities to prevent surface water runoff from contaminating water bodies, using best available technologies and include a maintenance program that will assure proper functioning of such facilities over time.

Public Access

Applicability

Shoreline public access is the physical ability of the general public to reach and touch the water's edge and/or the ability to have a view of the water and the shoreline from upland locations. There are a variety of types of public access including picnic areas, pathways and trails (including handicapped), floats and

docks, promenades, viewing towers, bridges, boat launches, street ends, ingress and egress, parking and others.

Policies

1. Public access should be considered in the review of all private and public developments (including land division) with the exception of the following:

a. One and two-family dwelling units; or

b. Agricultural/ranching activities; or

c. Where deemed inappropriate due to health, safety and environmental concerns.

2. Developments, uses and activities on or near the shoreline should not impair or detract from the public's access to the water.

3. Public access should be provided as close as possible to the water's edge without adversely affecting a sensitive environment and should be designed with provisions for handicapped and physically impaired persons.

4. Publicly owned shorelines should be limited to water-dependent or public recreational uses, otherwise such shorelines should remain protected open space.

5. Public access afforded by shoreline street ends, public utilities and rights-of-way should be preserved, maintained and enhanced.

6. Public access should be designed to provide for public safety and to minimize potential impacts to private property and individual privacy.

7. The public access area should be a comfortable and safe place to visit.

8. There should be a physical separation or other means of clearly delineating public and private space in order to avoid unnecessary user conflict.

9. Public views from the shoreline upland areas should be enhanced and preserved. Enhancement of views should not be construed to mean excessive removal of vegetation that partially impairs views.

Regulations

1. Except as provided in regulations 2 and 3, shoreline substantial developments or conditional uses shall provide public access where any of the following conditions are present:

    a. Where a development or use will create increased demand for public access to the shoreline, the development or use shall provide public access to mitigate this impact.

    b. Where a development or use will interfere with an existing public access way, the development or use shall provide public access to mitigate this impact. Developments may interfere with accesses on their development site by blocking access or by discouraging use of existing on-site or nearby accesses.

    c. Where a use, which is not a priority shoreline use under the Shoreline Management Act

will locate on a shoreline of the state, the use or development shall provide public access to mitigate this impact.

d. Where a use or development will interfere with a public use of lands or waters subject to the public trust doctrine, the development shall provide public access to mitigate this impact.

The shoreline permit file shall describe the impact, the required public access conditions, and how the conditions address the impact.

2. An applicant need not provide public access where one or more of the following conditions apply.

a. Unavoidable health or safety hazards to the public exist which cannot be prevented by any practical means;

b. Inherent security requirements of the use cannot be satisfied through the application of alternative design features or other solutions;

c. The cost of providing the access, easement or an alternative amenity is unreasonably disproportionate to the total long-term cost of the proposed development;

d. Unacceptable environmental harm will result from the public access which cannot be mitigated; or

e. Significant undue and unavoidable conflict between any access provisions and the proposed use and/or adjacent uses would occur and cannot be mitigated.

3. In order to meet any of the conditions "a" through "e" above, the applicant must first demonstrate and the City determine in its findings that all reasonable alternatives have been exhausted, including but not limited to:

a. Regulating access by such means as maintaining a gate and/or limiting hours of use;

b. Designing separation of uses and activities (e.g. fences, terracing, use of one-way glazings, hedges, landscaping, etc.); and

c. Developing provisions for access at a site geographically separated from the proposal such as a street end, vista or trail system.

4. Development uses and activities shall be designed and operated to avoid blocking, reducing or adversely interfering with the public's physical access to the water and shorelines.

5. Public access provided by shoreline street ends, public utilities and rights-of-way shall not be diminished (RCW 35.79.035 and RCW 36.87.130).

6. Public access sites shall be connected directly to the nearest public street and shall include provisions for handicapped and physically impaired persons, where feasible.

7. Required public access sites shall be fully developed and available for public use at the time of occupancy of the use or activity.

8. Public access easements and permit conditions shall be recorded on the deed of title and/or on the face of a plat or short plat as a condition running contemporaneous with the authorized land use,

at a minimum. Said recording with the County Auditor's Office shall occur at the time of permit approval (RCW 58.17.110).

9. Minimum width of public access easements shall be 25 feet, unless the administrator determines that undue hardship would result. In such cases, easement width may be reduced only to the minimum extent necessary to relieve the hardship.

10. The standard state approved logo or other approved signs that indicate the public's right of access and hours of access shall be constructed, installed and maintained by the applicant in conspicuous locations at public access sites. In accordance with regulation 2-a, signs may control or restrict public access as a condition of permit approval.

11. Future actions by the applicant successors in interest or other parties shall not diminish the usefulness or value of the public access provided.

Shorelines of State-Wide Significance

Applicability

The Shoreline Management Act of 1971 designated certain shoreline areas as shorelines of state-wide significance. Within this City's jurisdiction are shorelines of state-wide significance. Shorelines thus designated are important to the entire state. Because these shorelines are major resources from which all people in the state derive benefit, this jurisdiction gives preference to uses which favor long-range goals and support the overall public interest.

Policies

1. Recognize and protect the state-wide interest.

    a. Solicit comments and opinions from groups and individuals representing state-wide interests by circulating the master program, and any amendments there of affecting shorelines of state-wide significance, to state agencies, adjacent jurisdictions, citizen's advisory committees and local officials and state-wide interest groups.

    b. Recognize and take into account state agencies' policies, programs and recommendations in developing and administering use regulations and in approving shoreline permits.

    c. Solicit comments, opinions and advice from individuals with expertise in ecology, geology, limnology, aquaculture and other scientific fields pertinent to shoreline management.

2. Preserve the natural character of the shoreline.

    a. Designate and administer shoreline environments and use regulations to minimize damage to the ecology and environment of the shoreline as a result of man-made intrusions on shorelines.

    b. Upgrade and redevelop those areas where intensive development already exists in order to reduce adverse impact on the environment and to accommodate future growth rather than allowing high intensity uses to extend into low-intensity use or underdeveloped areas.

c. Protect and preserve existing diversity of vegetation and habitat values, wetlands and riparian corridors associated with shoreline areas.

3. Result in long-term over short-term benefit.

   a. Evaluate the short-term economic gain or convenience of developments relative to the long-term and potentially costly impairments to the natural shoreline.

   b. In general, preserve resources and values of shorelines of state-wide significance for future generations and restrict or prohibit development that would irretrievably damage shoreline resources.

   c. Actively promote aesthetic considerations when contemplating new development, redevelopment of existing facilities or general enhancement of shoreline areas.

4. Protect the resources and ecology of the shoreline.

   a. Minimize development activity that will interfere with the natural functioning of the shoreline ecosystem, including, but not limited to: stability, drainage, aesthetic values and water quality.

   b. All shoreline development should be located, designed, constructed and managed to avoid disturbance of and minimize adverse impacts to wildlife resources, including spawning, nesting, rearing and habitat areas and migratory routes.

   c. Restrict or prohibit public access onto areas which cannot be maintained in a natural condition under human use.

   d. Shoreline materials including, but not limited to, bank substrate, soils, beach sands and gravel bars should be left undisturbed by shoreline development. Gravel mining should be severely limited in shoreline areas.

   e. Preserve environmentally sensitive wetlands for use as open space or buffers and encourage restoration of presently degraded wetland areas.

5. Increase public access to publicly owned areas of the shoreline.

   a. Give priority to developing paths and trails to shoreline areas, linear access along the shorelines and to developed upland parking.

   b. Locate development landward of the ordinary high water mark so that access is enhanced.

6. Increase recreational opportunities for the public on the shoreline.

   a. Plan for and encourage development of facilities for recreational use of the shoreline.

   b. Reserve areas for lodging and related facilities on uplands well away from the shorelines with provisions for nonmotorized access to the shoreline.

Signage

Applicability

A sign is defined as a device of any material or medium, including structural component parts, which is used or intended to be used to attract attention to the subject matter for advertising, identification or informative purposes. The following provisions apply to any commercial or advertising sign directing attention to a business, professional service, community, site, facility, or entertainment, conducted or sold either on or off premises.

Policies

1. Signs should be designed and placed so that they are compatible with the aesthetic quality of the existing shoreline and adjacent land and water uses.

2. Signs should not block or otherwise interfere with visual access to the water or shorelands.

Regulations

1. Sign plans and designs shall be submitted for review and approval at the time of shoreline permit approval.

2. All signs shall be located and designed to minimize interference with vistas, viewpoints and visual access to the shoreline.

3. Over-water signs or signs on floats or pilings shall be related to water-dependent uses only.

4. Lighted signs shall be hooded, shaded, or aimed so that direct light will not result in glare when viewed from surrounding properties or watercourses.

5. Signs related to specific on-site uses or activities shall not exceed 32 square feet in surface area. On-site freestanding signs shall not exceed 6 feet in height. When feasible, signs shall be flush-mounted against existing buildings.

6. Temporary or obsolete signs shall be removed within 10 days of elections, closures of business, or termination of any other function. Examples of temporary signs include: real estate signs, directions to events, political advertisements, event or holiday signs, construction signs.

7. Signs that do not meet the policies and regulations of this program shall be removed or conform within two years of the adoption of this master program.

8. No signs shall be placed in a required view corridor.

Allowable Signs

The following types of signs may be allowed in all shoreline environments:

1. Water navigational signs, and highway and railroad signs necessary for operation, safety and direction.

2. Public information signs directly relating to a shoreline use or activity.

Utilities (Accessory)

Applicability

Utilities have been split into accessory and primary with accessory meaning utilities that effect small scale distribution services connected directly to the uses along the shoreline. For example, power, telephone, cable, water and sewer lines, including stormwater systems, are all considered as utilities accessory to shoreline uses. They are covered in this section because they concern all types of development and have the potential of impacting the quality of the shoreline and its waters.

Policies

1. Utilities are necessary to serve shoreline uses and should be properly installed so as to protect the shoreline and water from contamination and degradation.

2. Utility facilities and right-of-ways should be located outside of the shoreline area to the maximum extent possible. When utility lines require a shoreline location, they should be placed underground.

3. Utility facilities should be designed and located in a manner which preserves the natural landscape and shoreline ecology and minimizes conflicts with present and planned land uses.

Regulations

1. In shoreline areas, utility transmission lines, pipelines and cables shall be placed underground unless demonstrated to be not feasible. Further, such lines shall utilize existing rights-of-way, corridors and/or bridge crossings whenever possible. Proposals for new corridors in shoreline areas involving water crossings must fully substantiate the lack of feasibility of existing routes.

2. Utility development shall, through coordination with government agencies, provide for compatible multiple use of sites and rights-of-way. Such uses include shoreline access points, trails and other forms of recreation and transportation systems, providing such uses will not unduly interfere with utility operations or endanger public health and safety.

3. Sites disturbed for utility installation shall be stabilized during and following construction to avoid adverse impacts from erosion.

Vegetation Management

Applicability

Vegetation management involves both a passive and active management system. The intent of both systems is to minimize habitat loss and the impact of invasive plants, erosion, sedimentation and flooding. "Passive" vegetation management deals with protection and enhancement of existing diverse native plant communities along all shorelines including rivers, wetlands, lakes and steep bluffs. "Active" vegetation management involves aquatic weed control as well as the restoration of altered or threatened shorelines using a technology called soil bioengineering. Soil bioengineering reestablishes native plant communities as a dynamic system that stabilizes the land from the effects of erosion. Vegetation management provisions apply even to those shorelines and uses, which are exempt from a permit requirement.

Policies

1. Native plant communities within and bordering state shorelines including, but not limited to, wetlands, lakes, rivers and unstable bluffs should be protected and maintained to minimize damage to the ecology and environment of the shoreline area.

2. Restoration of shorelines degraded due to natural or manmade causes should, wherever feasible, use soil bioengineering techniques to arrest the processes of erosion, sedimentation and flooding.

3. The design and use of naturally regenerating systems for prevention and control of beach erosion should be encouraged where:

    a. The length and configuration of the beach will accommodate such systems;

    b. Such protection is a reasonable solution to the needs of the specific site; and

    c. Beach restoration/enhancement will accomplish the following objectives:

        i. Recreate or enhance natural shoreline conditions and habitat;

        ii. Reverse otherwise erosional conditions; and

        iii. Enhance access to the shore, especially to public shores.

5. Aquatic weed management should stress prevention first. Where active removal or destruction is necessary, it should be the minimum to allow water-dependent activities to continue, minimize negative impacts to native plant communities, and include appropriate handling or disposal of weed materials.

Regulations

1. All unique and fragile shorelines shall be protected from degradation caused by the modification of the land surface within the shoreline area and/or the adjacent uplands (see Site Specific Environment Designations).

2. Wherever possible, development of commercial, industrial, residential and/or recreational uses shall be located away from shorelines that have been identified as unstable and/or sensitive to erosion (see Site Specific Environment Designations).

3. Restoration of any shoreline that has been disturbed or degraded shall use native plant materials

with a diversity and type similar to that, which originally occurred on-site.

4. Stabilization of exposed erosion prone surfaces along shorelines including but not limited to rivers, streams and marine systems shall, wherever feasible utilize soil bioengineering techniques.

5. The use of commercial nursery stock in the restoration of disturbed or degrading shorelines shall emulate the previously existing vegetation in both size, structure and diversity at maturation.

6. Beach enhancement is prohibited:

    a. Within spawning, nesting or breeding habitat;

    b. Where littoral drift of the enhancement materials will adversely effect adjacent spawning grounds or other areas of biological significance;

    c. If it will interfere with the normal long term public use of the navigable waters of the state; and/or

    d. Where the activity is in support of a nonconforming use unless such activities are necessary to maintain shoreline stability and the natural ecology.

7. Aquatic weed control shall only occur when native plant communities and associated habitats are threatened or where an existing water dependent use is restricted by the presence of weeds. Aquatic weed control shall occur in compliance with all other applicable laws and standards.

8. The control of aquatic weeds by hand pulling, mechanical harvesting, or placement of aquascreens, if proposed to maintain existing water depth for navigation, shall be considered normal maintenance and repair and therefore exempt from the requirement to obtain a shoreline permit.

9. The control of aquatic weeds by derooting, rotovating or other method, which disturbs the bottom sediment or benthos, shall be considered development for which a shoreline permit is required, unless it will maintain existing water depth for navigation in an area covered by a previous permit for such activity, in which case it shall be considered normal maintenance and repair and therefore exempt from the requirement to obtain a shoreline permit.

10. Where large quantities of plant material are generated by control measures, they shall be collected and disposed of in an appropriate, identified upland location.

11. Use of herbicides to control aquatic weeds shall be prohibited except where no reasonable alternative exists and weed control is demonstrated to be in the public's interest. A conditional use permit, and compliance with applicable federal and state laws, shall be required in such case.

View Protection

Applicability

The protection of "scenic vistas" within the shorelines and water bodies is an important shoreline management objective. Protection of significant views is a form of public access; the access being visual rather than physical. Consideration must be given to protection of the visual quality of the shoreline resource and to maintenance of view corridors to and from waterways and their adjacent shoreland features.

The protection of views as a shoreline management objective is established as set forth in RCW 90.58.320 where it states:

> *"in the implementation of this policy the public's opportunity to enjoy the physical and aesthetic qualities of natural shorelines of the state shall be preserved to the greatest extent feasible consistent with the overall best interest of the state and the people generally."*

RCW 90.58.320 also addresses view protection on adjacent lands stating:

> *"No permit shall be issued pursuant to this chapter for any new or expanded building or structure of more than 35 feet above average grade level on shorelines of the state that will obstruct the view of a substantial number of residences on areas adjoining such shorelines except where a master program does not prohibit the same and then only when overriding considerations of the public interest will be served."*

View protection can include preventing view blockage through height limitations or requiring aesthetic enhancement with landscaping. However, view protection does not allow for excessive vegetation removal to create views or enhance partial existing views. Please refer to the Vegetation Management and Clearing and Grading provisions contained in this chapter.

Policies

1. Development, uses and activities on or near the shoreline should not impair or detract from the public's visual access to the water.

2. Public views from the shoreline and upland areas should be enhanced and preserved. Enhancement of views should not be construed to mean excessive removal of vegetation that partially impairs views.

Regulations

1. Shoreline uses and activities should be designed and operated to avoid blocking, reducing, or adversely interfering with the public's visual access to the water and shorelines.

2. Public lands such as street ends, rights-of-way and utilities shall provide visual access to the water and shoreline in accordance with RCW 35.79.035 and RCW 36.87.130.

3. In providing visual access to the shoreline, the natural vegetation shall not be excessively removed either by clearing or by topping.

4. Development on or over the water shall be constructed as far landward as possible to avoid interference with views from surrounding properties to the shoreline and adjoining waters.

5. Permitted over-water development shall be constructed of nonreflective materials that are compatible in terms of color and texture with the surrounding area.

Water Quality

Applicability

Water quality is effected in numerous ways by human occupation and development of shoreline areas. Typically the increase in impermeable surfaces as a result of development increases runoff causing higher peak stormwater discharge at a higher velocity which causes scouring and erosion of stream banks. Erosion increases suspended solids and carries heavy metals, household wastes and excess nutrients into the water. Increased nitrogen and phosphorous enrichment depresses levels of dissolved oxygen. The degradation of water quality adversely impacts wildlife habitat and public health.

Maintaining high water quality standards and restoring degraded systems has been mandated in RCW 90.58.020:

> *"This policy contemplates protecting against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the state and their aquatic life."*

Water quality is impacted by a variety of uses and modifications and clearly needs broad policies and regulations to protect the shorelines and the associated waters of the state.

Policies

1. All shoreline uses and activities should be located, designed, constructed and maintained to minimize adverse impacts to water quality and fish and wildlife resources including spawning, nesting, rearing, feeding areas and migratory routes.

2. The City should require reasonable setbacks, buffers and stormwater management facilities to achieve the objective of lessening negative impacts on water quality.

3. All measures for controlling erosion, stream flow rates or floodwaters through the use of instream structures should be located, designed, constructed and maintained so that net off-site impacts related to water do not degrade the existing water quality.

4. All measures for the treatment of runoff for the purpose of maintaining and/or enhancing water quality should be conducted on-site before shoreline development impacts waters off-site.

5. Dredging and filling activities should be conducted to minimize the effect on water quality from the addition of suspended solids, leaching of contaminants or disturbance of habitats and should be consistent with applicable regulatory agency requirements (e.g. State Department of Fish and Wildlife, Corps. of Engineers).

6. Impacts to water quality by agricultural activities such as animal feeding operations, feed lots, retention and storage ponds, manure storage, use of fertilizers and pesticides and other activities should be minimized by implementing best management practices, buffers and setbacks.

Regulations

1. All shoreline development, both during and after construction, shall minimize any increase in surface runoff through control, treatment and release of surface water runoff so that the receiving water quality and shore properties and features are not adversely effected. Control measures include but are not limited to dikes, catch basins or settling ponds, oil interceptor drains, grassy swales, planted buffers and fugitive dust controls.

2. The local government and proposed shoreline uses and activities shall mitigate any reduction in water quality due to erosion of rivers and stream systems by increasing storage of runoff peaks utilizing the hydraulic storage capacity of floodways and wetlands.

3. All industrial, commercial, residential and recreational uses shall adhere to all required setbacks, buffers and standards for storage basins (refer to shoreline use and environment designation regulations for specific limits).

4. All shoreline development shall comply with the applicable requirements of the *Puget Sound Stormwater Quality Technical Manual for the Puget Sound Basin*, which has been adopted by the City.

CHAPTER 4 - ENVIRONMENT DESIGNATION POLICY AND REGULATION

The shoreline environment designations established under the Shoreline Management Act are one of the principal tools available for applying and tailoring the general guidelines of the Act to local shorelines. Classifying shorelines into specific designations as recommended in WAC 173 - 16 - 040(4) provides the means of adapting broad policies to shoreline segments with distinctively different conditions and resources; it also integrates comprehensive shoreline planning into master program regulations.

All shoreline areas within Stanwood are defined as being in either the Urban or the Rural Environmental Designations as described below.

ENVIRONMENT DESIGNATIONS

Urban Environment

Purpose

The Urban Environment is an area of high-intensity land-use including residential, commercial and industrial development. The purpose of this environment is to ensure optimum utilization of shorelines which, are either presently urbanized or planned for urbanization. Development in urban areas should be managed so that it enhances and maintains the shorelines for a variety of urban uses, with priority given to water-dependent, water-related and water-enjoyment uses.

Designation Criteria

The primary determinant for designating an area in the Urban Environment is to ensure optimum utilization of shorelines within urbanized areas by providing for intensive public use and by managing development so that it enhances and maintains shorelines for a multiplicity of urban uses.

Criteria for designation are:

1. Areas of high density residential, commercial and industrial use.

2. Incorporated towns having intensive shoreline waterfront development.

3. Areas of low to medium density development contiguous to incorporated centers which are subject to pressures for high density urban development and/or annexation.

Management Policies

1. Priority should be given to "water dependent and water oriented" uses over other uses.

2. Priority should be given to developing visual and pedestrian access to publicly owned shorelines and tidelands in the urban environment.

3. Where practical, public access points should be linked with non-motorized transportation routes.

4. Encourage redevelopment and/or renewal of blighted areas or abandoned structures in order that complete utilization may be made of shoreline resources in an Urban Environment.

5. Promote aesthetic considerations within the Urban Environment by means of sign control regulations, architectural standards and planned unit development.

6. Development within the Urban Environment should be encouraged to provide management plans which protect the quality of the environment.

7. Encourage maximum multiple use of urban shoreline areas.

8. Shoreline dependent commercial and industrial uses should be encouraged to fully utilize those existing urban shoreline areas before expansion is allowed into undeveloped areas.

Rural Environment

Purpose

The objective of designating a Rural Environment is to protect agricultural land from urban expansion, restrict intensive development along undeveloped shorelines, function as a buffer between urban areas, and maintain open spaces and opportunities for recreational and other uses compatible with agricultural activities.

Designation Criteria

Criteria for designation are:

1. Areas characterized by recreational or intensive agricultural uses.

2. Areas possessing high capability to support active agricultural practices or intensive recreational development.

3. Areas modified from their natural vegetative cover and surface drainage patterns but generally having low-density development.

4. Areas where residential development is or should be low density because of physical limitations, utility capabilities, access and compatibility with other uses.

5. Areas designated in officially adopted park and recreation plans for medium to high-intensity recreational use.

6. Areas of undeveloped land not appropriate for Natural, Conservancy Suburban or Urban Environment designation.

7. Areas having valuable sand, gravel and mineral deposits.

8. Areas located in the estuarine and pastoral zones, and in certain limited instances the flood plains of the Stillaguamish river system.

Management Policies

1. Protect prime agricultural lands from incompatible and preemptive patterns of development.

2. Restrict intensive development along undeveloped rural environment shorelines.

3. Permit opportunities for recreational uses compatible with agricultural activities.

4. Maintain existing and potential areas having a high capability to support intensive agricultural uses for present and future agricultural needs.

5. Require new developments in Rural Environments to reflect the character of the surrounding area by limiting residential density, providing permanent open space, and by maintaining adequate building setbacks from the water to prevent shoreline resources from being destroyed for other rural types of uses.

6. Permit public and private recreation facilities which can be located and designed to minimize conflicts with agricultural activities. Examples of such facilities include linear water access, trail systems and boat launching sites.

7. Encourage farm management practices which will minimize erosion and the flow of waste material into water courses.

8. Restrict industrial and commercial development in the Rural Environment.

9. Restrict the density of residential development in the Rural Environment except in those limited areas that are suitable for recreational housing.

10. Provide for sand, gravel and mineral extraction in suitable areas that are not designated as prime agricultural land.

Chapter 5 - SHORELINE USE POLICIES AND REGULATIONS

This section contains policies and regulations for projects which may be proposed along shorelines of Stanwood. Each topic, representing a specific use or group of uses, is broadly defined and followed by several policies. These policies represent the criteria upon which review of proposed shoreline developments will be based. The policies provide the flexibility needed to carry out the effective management planning of shoreline areas. Therefore, the interpretation and application of policies may vary from project to project.

Use Activity Regulations are not as flexible as the policies. It is the regulations that provide the legal assurance of what will be required of any development located within a shoreline area. The regulations include references to some state and federal requirements, however, there is no attempt to cite all potential requirements of state and federal agencies.

Shoreline use activities not specifically identified and for which policies and regulations have not been developed will be evaluated on a case by case basis as a conditional use. Activities will be required to satisfy the goals and general development policies of the master program, the Shoreline Management Act and shall be consistent with the management policy and character of the shoreline environment in which they locate.

Aquaculture

Applicability

Aquaculture is the culture or farming of food fish, shellfish, or other aquatic plants and animals. Potential locations for aquacultural enterprises are relatively restricted due to specific requirements for water quality, temperature, flows, oxygen content, and in marine waters, salinity.

Policies

1. Locate aquacultural enterprises in areas where the navigational access of upland owners and commercial waterborne traffic is not significantly restricted.

2. Consider the possible detrimental impact aquacultural development might have on view from upland property and on the general aesthetic quality of the shoreline area.

3. Encourage development of underwater aquaculture structures which do not interfere with navigation or seriously degrade the aesthetic quality of city shorelines.

4. Minimize the detrimental impact aquacultural projects might have on agricultural practices, recreation, and other economic activities located along city shorelines.

5. Ecological balance should be considered when introducing non-native fish or shellfish, plant or animal life.

Regulations

1. Applicants shall include in their applications all information needed to conduct thorough evaluations of their aquaculture proposals, including but not limited to the following:
   a. Species to be reared;
   b. Aquaculture method(s);
   c. Anticipated use of any feed, pesticides, herbicides, antibiotics or other substances and their predicted impacts;
   d. Manpower/employment necessary for the project;
   e. Harvest and processing location, method and timing;
   f. Location and plans for any shoreside activities, including loading and unloading of the product and processing;
   g. Method of waste management and disposal;
   h. Environmental assessment, including best available background information on water quality, tidal variations, prevailing storm wind conditions, current flows, flushing rates, aquatic and benthic organisms and probable impacts on water quality, biota, currents, littoral drift and any existing shoreline or water uses. Further baseline studies may be required depending upon the adequacy of available information, existing conditions, the nature of the proposal and probable adverse environmental impacts. Baseline monitoring shall be at the applicant's expense unless otherwise provided for;
   i. Method(s) of predator control;
   j. Use of lights and noise generating equipment over water that minimizes interference with surrounding uses; and
   k. Other pertinent information deemed necessary by the City/County.

2. The location of floating and submerged aquaculture structures shall not unduly restrict navigation to or along the shoreline or interfere with general navigation lanes and traffic or "usual and accustomed fishing locations". Floating structures shall remain shoreward of principal navigation channels. Other restrictions on the scale of aquaculture activities in order to protect navigational access may be necessary based on the size and shape of the affected water body.

3. Aquacultural structures and activities that are not water-dependent (e.g., warehouses for storage of products, parking lots) shall, be located inland of the ordinary high water mark, upland of water dependent portions of the project and shall minimize detrimental impacts to the shoreline.

4. Aquacultural structures and equipment shall be of sound construction and shall be so maintained. Abandoned or unsafe structures and equipment shall be removed or repaired promptly by the owner. Where any structure might constitute a potential hazard to the public in the future, the City/County shall require the posting of a bond commensurate with the cost of removal or repair. The City/County may abate an abandoned or unsafe structure, following notice to the owner, if the owner fails to respond in thirty days and may impose a lien on the related shoreline property or other assets in an amount equal to the cost of the abatement. Bonding requirements shall not duplicate requirements of other agencies.

5. Legally established aquacultural enterprises, including authorized experimental projects, shall be protected from incompatible uses that may seek to locate nearby. Demonstration of a high probability that such an adjacent use would result in damage to, or destruction of, such an aquacultural enterprise shall be grounds for the denial of that use.

6. No processing of any aquacultural product, except for the sorting or culling of the cultured organisms and the washing or removal of surface materials or organisms, shall occur in or over the water after harvest, unless specifically approved by permit. All other processing and processing facilities shall be located on land and, in addition to these provisions shall be governed by the policies and regulations of other applicable sections of this master program, in particular

provisions addressing commercial and industrial uses.

Boating Facilities

Applicability

Marinas are facilities that provide boat launching, storage, supplies and spaces for small pleasure craft. There are two basic types of marinas: the open-type construction (floating breakwater and/or open-pile work) and solid-type construction (bulkhead and/or landfill). Depending upon the type of construction, marinas affect fish and shellfish habitats.

Policies

1. Fish and shellfish resources should be protected from the impacts associated with the location, design, construction and operation of marinas.

2. Boating facilities should be aesthetically compatible with adjacent areas.

3. Identify locations that are near high-use or potentially high-use areas for proposed marina sites. Local as well as regional "need" data should be considered as input in location selection.

4. Require operating procedures for fuel handling and storage to minimize accidental spillage and Provide satisfactory means for handling those spills that do occur.

5. Shallow water embayments with poor flushing action should not be considered for overnight and long-term moorage facilities without the provision of adequate waste disposal facilities.

6. Comply with guidelines prepared by the Washington State Department of Fisheries and other empowered agencies in planning marinas.

7. Enforce fully state and local health agency standards and guidelines for the development of marinas.

8. Encourage provision of multiple use in marina design.

Regulations

1. Marinas shall provide for at least one method of boat launching as an integral part of the facility.

2. All marinas shall meet governmental health and water quality standards in regard to any wastes generated at the marina.

3. Oil and gas handling systems shall be designed in accordance with Federal and State laws and regulations.

4. Surface runoff shall be controlled in accordance with Federal and State and local water quality and storm drainage laws and regulations.

5. All marinas shall include landscaping pursuant to a landscaping plan to be submitted and approved as a part of the permit process.

6. All marinas shall meet criteria suggested by the State Department of Fisheries relative to disruption of currents, restriction of tidal prisms, flushing characteristics, and fish passage.

7. All marinas shall have all berths so designed that they can rise and fall safely with flood waters.

8. All marinas shall be designed to provide minimum impedance and hazard to navigation.

9. Marinas shall not deflect river currents such that adverse impacts would occur on downstream properties.

Commercial Development

Applicability

Commercial developments are uses that involve wholesale and retail trade or business activities. Commercial developments range from small businesses within residences (permitted home occupations) to office buildings. Commercial development is an intensive user of space because of its floor area requirements and because of facilities such as parking lots, necessary to service it.

Exemptions

Although a substantial development permit is not required for construction within shoreline jurisdiction by an owner, lessee or contract purchaser of a single-family residence for his own use or the use of his family, such construction and all normal appurtenant structures must otherwise conform to this master program. An "appurtenant" means a structure that is necessarily connected to the use and enjoyment of a single-family residence and includes a garage, deck, driveway, utilities, fences and grading which does not exceed 500 cubic yards.

The Shoreline Management Act exempts from the requirement to obtain a substantial development permit the construction of any structure with a fair market value less than $2,500, which does not materially interfere with the normal public use of the waters or shorelines of the State. Although these structures are exempt from obtaining a substantial development permit, compliance with the provisions, prohibitions, regulations and development standards of this program is still required. Development that does not require a substantial development permit may still require a variance or conditional use permit.

Policies

1. New commercial developments should be located on shorelines where current commercial uses exist and non-water oriented commercial uses should be discouraged from locating in the shoreline.

2. In order to minimize adverse impact, ensure that adequate assessment be made of and consideration given to, the effect a commercial structure will have on a scenic view significant to a give area or enjoyed by a significant number of people.

3. Parking facilities that serve the shoreline should be located landward of permitted development and their visual impacts minimized.

4. Commercial developments should be required to provide physical or visual access to the shoreline or other opportunities for the public to enjoy the shorelines of the State.

5. All commercial development in the shoreline should respect natural systems.

Regulations

1. Applications for commercial development shall include a detailed statement explaining the nature and intensity of water orientation of the proposed activity. Such statement shall include (at a minimum) the following:

    a. Nature of the commercial activity;
    b. Need for shoreline frontage (where appropriate);
    c. Special considerations being planned to enhance the relationship of the activity to the shoreline;
    d. Provisions for public visual and/or physical access to the shoreline (where appropriate).

2. Signs associated with commercial developments shall meet the regulations specified under Signage, in the shoreline master program.

3. Parking associated with commercial developments shall meet the regulations specified under Parking, of this Shoreline Master Program.

4. Over-water construction and landfill shall be prohibited except as provided for herein.

5. All Commercial uses would be subject to a 100-foot buffered setback from the ordinary high water mark of the shoreline. The applicant is required to fence or buffer the landward perimeter of the buffer along the entire width of the property. The buffer should be enhanced with native plant species pursuant to a plan prepared by a plant ecologist, wetland specialists or other professional with comparable training and experience.

Flood Hazard Management

Applicability

Flood protection and streamway modifications are those activities occurring within the streamway and wetland areas designed to reduce overbank flow of high waters and stabilize eroding streambanks. Reduction of flood damage, bank stabilization to reduce sedimentation, and protection of property from erosion are normal, achieved through watershed and flood plain management and by structural works.

Policies

1. Locate, design and construct rip-rapping and other bank stabilization or flood protection measures so as to avoid the disruption of channel integrity and to, protect adjacent property from adverse affects of stormwater runoff while protecting the natural character of the streamway.

2. Place all flood protection measures such as dikes and levees landward of the streamway, including associated wetlands directly interrelated and interdependence with the stream proper.

3. Recognize and protect the integrity of a water body's hydraulic system when planning for and designing shoreline stabilization and flood protection measures.

Regulations

1. All shoreline stabilization and flood protection measures shall be designed and constructed so that downstream banks will not be adversely effected.

2. All applications for shoreline stabilization and flood protection measures shall include the

following (at a minimum):

a. Purpose of project;

b. Existing shoreline stabilization and flood protection devices within one-eight mile on each side of proposed project;

c. Construction material and methods.

3. Flood control diking shall be landward of the designated hydraulic floodway.

4. Streamway vegetation shall be preserved to the maximum extent feasible consistent with safe construction requirements.

5. Cut-and-fill slopes and backfield areas shall be revegetated with natural grasses, shrubs and/or trees in keeping with existing river bank vegetation.

Forest Practices

Applicability

Forest management practices are those methods used for the protection, production and harvesting of timber. Trees along a body of water provide shade which insulate the waters from detrimental temperature change and dissolved oxygen level release. A stable water temperature and dissolved oxygen level provide a healthy environment for fish and other more delicate forms of aquatic life.

Policy

1. Encourage reforestation and good timber harvesting practices throughout the City.

Industry

Industrial developments are facilities for processing, manufacturing and storage of finished or semifinished goods. Ports are public enterprises providing services and facilities for waterborne commerce, airborne commerce and industrial development dependent upon waterfront locations or attracted to a port because of the variety of available transportation. Included in ports and industry are such activities as container ship terminals, log storage, log rafting, petroleum storage, hazardous waste generation, transport and storage, ship building, concrete and asphalt batching, tug and barge operations, etc. Excluded from this category and covered under other sections of the SMP are boating facilities, piers and docks, mining (including on-site processing of raw materials), utilities, solid waste disposal and transportation facilities.

Activities associated with port and industrial development which are identified as separate use activities in this program, such as Dredging, Landfill, Transportation Facilities, Utilities, Piers and Docks, Bulkheads, Breakwaters, Jetties and Groins, Shoreline Stabilization and Flood Protection and Signs, are subject to the regulations established for those in addition to the provisions for ports and industry established in this section.

Exemptions

Although a substantial development permit is not required for construction within shoreline jurisdiction by an owner, lessee or contract purchaser of a single-family residence for his own use or the use of his family, such construction and all normal appurtenant structures must otherwise conform to this master program.

An "appurtenant" means a structure that is necessarily connected to the use and enjoyment of a single-family residence and includes a garage, deck, driveway, utilities, fences and grading which does not exceed 500 cubic yards.

The Shoreline Management Act exempts from the requirement to obtain a substantial development permit the construction of any structure with a fair market value less than $2,500 which does not materially interfere with the normal public use of the waters or shorelines of the State. Although these structures are exempt from obtaining a substantial development permit, compliance with the provisions, prohibitions, regulations and development standards of this program is still required. Development that does not require a substantial development permit may still require a variance or conditional use permit.

Policies

1. Regional and state-wide needs for industrial facilities should be carefully considered in reviewing new proposals as well as in allocating shorelines for such development. Such reviews or allocations should be coordinated with port districts, adjacent counties and cities and the state in order to minimize new industrial development which would unnecessarily duplicate under-utilized facilities elsewhere, or result in unnecessary adverse impacts on other jurisdictions.

2. Expansion or redevelopment of existing legally established industrial areas, facilities and services with the possibility of incorporating mixed-use development should be encouraged over the addition and/or location of new or single-purpose industrial facilities.

3. Joint use of piers, cargo handling, storage, parking and other accessory facilities among private or public entities should be strongly encouraged or required in waterfront industrial areas.

4. Industrial development should not be located on sensitive and ecologically valuable shorelines such as natural accretion shoreforms, wetlands or estuaries, wildlife habitat areas, nor on shores inherently hazardous for such development, such as flood-prone and erosion-prone areas and steep or unstable slopes.

5. New industrial development should be required to provide physical and/or visual access to shorelines and visual access to facilities whenever possible and when such access does not cause significant interference with operations or hazards to life and property.

6. Dry land log storage is preferred over water storage.

7. Wherever practical and environmentally beneficial, paved log storage yards should be encouraged over agate-surfaced yards to reduce waste disposal problems and control and treat resultant runoff.

8. Water-dependent and water-related industries should be encouraged in the shoreline jurisdiction.

Regulations - General

1. Proposed industrial developments or major expansions shall be consistent with the City Comprehensive Plan.

2. New accessory development which does not generally require a shoreline location shall be located upland of the water-dependent portions of the development and set back from the OHWM whenever feasible as set forth in Chapter 4 Environment Designation; this category includes parking, warehousing, open air storage, waste storage and treatment or storm runoff control

   facilities, utilities and land transportation development.

3. Existing industrial development on shorelines which is neither water-dependent nor water-related may be permitted as a conditional use to expand inland from existing structures but not parallel to or waterward of the OHWM. Waterward expansion of existing non-water-oriented industry is prohibited.

4. The developer shall demonstrate that adequate consideration has been given to and plans made to

mitigate negative environmental impacts including but not limited to air, water, aesthetics, noise pollution and the loss of fish and wildlife habitat.

5. Water-dependent industry shall be located and designed to minimize the need for initial and/or continual dredging, filling, spoil disposal and other harbor and channel maintenance activities.

6. Piers, moorage, slips, floats and launching facilities may be permitted accessory to industrial development, provided:

   a. The facility serves a water-dependent or water-related use;

   b. The facility does not constitute a hazard to navigation; and

   c. All other provisions pertaining to these uses are met.

7. At new or expanded port and/or industrial developments, the best available management practices and procedures shall be employed for the safe handling of fuels and toxic or hazardous materials to prevent them from entering the water and optimum means shall be employed for prompt and effective cleanup of those spills that do occur.

8. Port authorities and industries shall recycle dredged material when feasible in areas suitable for disposal of such materials for agricultural, forestry storage, stockpiling or beautification purposes, with the intent of restoring natural vegetation or transfer for agricultural, forestry or landscaping purposes. Such materials may be spread on existing resource lands or may be used to create new agricultural resource land only if it is demonstrated that spoils are not contaminated with heavy metals or other toxins.

9. All shoreline development must conform to the General Provisions (see Section 3) and the Environment Designation Provisions (see Section 4) stated in this master program.

10. All Industrial uses would be subject to a 100-foot buffered setback from the ordinary high water mark of the shoreline. The applicant is required to fence or buffer the landward perimeter of the buffer along the entire width of the property. The buffer should be enhanced by native plant species pursuant to a plan prepared by a plant ecologist, wetland specialists or other professional with comparable training and experience.

Regulations - Design

1. The determinations of which lands are best suited for water-dependent/water-related industry should be made on the basis of the following location criteria:

   a. Channel access;

   b. Rail access;

   c. Major road access;

   d. Size of land area;

   e. Physical characteristics of site (e.g. grade, soil type, hydrology, etc.);

   f. Size of ownership units;

   g. Present use and projected growth patterns; and

   h. Environmental factors.

2. All new or expanded upland industrial development shall be set back and buffered from adjacent shoreline properties that are used for nonindustrial purposes. Buffers shall be of adequate width, height and plant and soil composition to protect shorelines and such other properties from visual or noise intrusion, minimize erosion and protect water quality. New or expanded industrial

development shall be set back and buffered from the shoreline except those water-dependent portions of the development which require direct access to the water or shoreline and where any adverse impacts are minimized.

3. Onshore port and/or industrial development on marine shores (less than 20 feet above mean sea level) shall be flood-proofed for protection against flood damage from storm tides and surges, and in consideration of long-term sea level rise.

4. Consistent with other provisions of this SMP, ports and/or water-dependent industry shall provide public access to the shoreline and/or provide opportunities for public viewing of the industrial activity whenever feasible and safe.

5. Display and other exterior lighting shall be designed, shielded and operated to minimize glare, avoid illuminating nearby properties and prevent hazards for public traffic.

6. Stormwater BMPs shall be followed. (see Ecology's Stormwater Management Manual for the Puget Sound Basin)

Regulations - Log Storage

1. Unpaved storage areas underlain by permeable soils shall have at least a 4-foot separation between the ground surface and the highest seasonal water table.

2. Berms, dikes, grassy swales, vegetated buffers, retention ponds or other means shall be used to ensure that surface runoff is collected and discharged from the storage area at one point, if possible. It shall be demonstrated that State water quality standards and/or criteria will not be violated by such runoff under any conditions of flow leaving the site and entering into nearby water courses. If such demonstration is not possible, treatment facilities for runoff shall be provided, meeting State and Federal standards.

3. Log storage shall not be permitted in public waters where water quality standards cannot be met at all times or where these activities are a hindrance to other beneficial water uses such as small craft navigation.

4. The free-fall, violent dumping of logs into water shall be prohibited. Easy let-down devices shall be employed for placing logs in the water.

5. Positive bark and wood debris control, collection and disposal methods shall be employed at log dumps, raft building areas and mill-side handling zones. This shall be required for both floating and sinking particles.

6. Bark and other debris shall be kept out of the water and immediately removed if accidentally allowed to enter the water.

7. Logs shall not be dumped, stored or rafted where grounding will occur.

8. Where water depths will permit the floating of bundled logs, they shall be secured in bundles on land before being placed in the water. Bundles shall not be broken again except on land or at millside.

Instream Structures

Applicability

Instream structures function for the impoundment, diversion or use of water for hydroelectric generation and transmission (including both public and private facilities), flood control, irrigation, water supply (both domestic and industrial), recreational or fisheries enhancement. Both the structures themselves and their support facilities are covered by this section. This applies to their construction, operation and maintenance,

as well as the expansion of existing structures and facilities.

Policies

1. Location and Design Features

    a. Instream structures and associated facilities should provide for the protection and preservation of natural and cultural resources including, but not limited to, fish, wildlife and water resources, sensitive areas such as wetlands, sensitive geologic and geohydraulic areas and waterfalls, erosion and accretion shoreforms and natural scenic vistas.

    b. Careful consideration should be given to avoiding or minimizing land and water use conflicts to properties in shoreline jurisdiction and to properties both adjacent to, upstream and downstream of the proposed site.

    c. Proposals for instream structures and associated facilities should give careful consideration to the design, location, security and construction of access roads, impoundment structures and reservoirs, penstocks and power houses to minimize adverse impacts to the shoreline and the surrounding area.

    d. Applications for instream structures should clearly document the suitability of the proposed site for the specific type of development, including alternative locations. Such site suitability analysis should thoroughly consider the environmental effects of the proposed facilities at the primary site and at alternative sites.

    e. All diversion structures should be designed to permit natural transport of bed load materials.

    f. Instream structures and their support facilities should be designed to minimize removal of riparian vegetation and the necessity for massive shore defense structures.

    g. The expansion of legally existing hydroelectric facilities or the integration of hydroelectric facilities within existing flood control, irrigation or water supply facilities is preferred over the development of new facilities. When new sites are considered, sufficient evidence should be presented to demonstrate that existing facilities are fully utilized or are not practicably available.

    h. All non-water oriented facilities such as staging and storage areas, switching yards, utility transmission lines and in many cases, power houses, should when feasible be located outside of shoreline jurisdiction.

    i. Mitigation should be required for loss of fisheries and wildlife resources, natural systems including wetlands and sensitive areas. No net loss in function or value of acreage should occur as a result of instream structures. When required, mitigation measures should be properly planned and monitored to ensure their effectiveness.

    j. Documentation of water right should be provided where applicable.

    k. Instream structures and associated facilities should be located and designed so they do not interfere with public navigation of the water course including commercial and recreational navigation. Such uses include barging, rafting, sailboarding, kayaking and canoeing.

    l. Instream structures and associated facilities should not be located where they will adversely impact publicly owned lands or waters used extensively for recreation. Impacts that should be avoided include the visual impact of the structure or facilities, the intrusion of roads or utility corridors into undeveloped area used for recreation, reduced water noise and significant visual impacts from reduced water flows.

2. Public Access and Recreational Considerations

a. Instream structures should be designed and constructed to insure public access to and along the shoreline, in accordance with the public access policies and regulations contained in this SMP. Existing public access and recreational opportunities should be retained, enhanced or replaced.

b. Instream structures should provide trails and other access links as well as appropriate ancillary facilities, such as parking and sanitary facilities, etc., if recreational opportunity is created.

c. The nature, time, number of people and area open to public access should be regulated for the purposes of habitat protection and/or public safety.

Regulations

1. All permit applications shall contain, at a minimum, the following:

   a. A site suitability analysis which provides sufficient justification for the proposed site. The analysis must fully address alternative sites for the proposed development.

   b. Proposed location and design of powerhouse, penstocks, accessory structures, utility corridors and access/service roads. Said locations shall be marked on the ground, and an on-site open public meeting may be required to facilitate public and other review and comments.

   c. Provision for public access to and along the affected shoreline and proposed recreational features at the site, where applicable.

   d. A plan which describes the extent and location of vegetation which is proposed to be removed to accommodate the proposed facility, and any site revegetation plan required by this SMP.

   e. A hydraulic analysis prepared by a licensed professional engineer which sufficiently describes the project's effects on streamway hydraulics, including potential increases in base flood elevation, changes in stream velocity and the potential for redirection of the normal flow of the affected stream.

   f. Biological resource inventory and analysis which sufficiently describe the project's effects on fisheries and wildlife resources, prepared by a professional biologist.

   g. Provision for erosion control, protection of water quality and fishery and wildlife resources during construction.

   h. Long-term management plans that describe, in sufficient detail, provisions for protection of instream resources during construction and operation. The plan shall include means for monitoring its success.

2. Public Access Requirements - In addition to the general public access requirements, the following also apply:

   a. Public access may be required through instream structures, provided public access improvements do not create additional adverse environmental impacts to and along the affected shoreline, nor create a safety hazard to the public. Public access provisions shall include, but not be limited to, any combination of trails, vistas, parking and any necessary sanitation facilities. Required public access sites shall be dedicated for public use through acquisition by the City, or recorded easement.

3. Site Development

   a. Erosion and Drainage Control

i. Temporary and emergency erosion control drainage measures, such as, but not limited to, silt curtains, berms and stormwater catch basins shall be utilized during construction to prevent shoreline erosion and siltation of the water body.

ii. Temporary erosion and drainage control devices may be removed following construction completion, provided that an approved erosion control and maintenance plan has been implemented by the contractor(s).

iii. Materials adequate to immediately correct emergency erosion situations shall be maintained on-site.

b. Clearing/Excavation Management

i. All debris, overburden and other waste materials from construction shall be disposed of in such a manner as to prevent their entry into a water body by erosion, from drainage, high water or other vectoring mechanisms.

ii. All disposal sites shall be identified by the developer or contractor prior to construction and shall be approved by appropriate local authorities.

c. Staging and Storage Areas

i. All heavy construction equipment as well as fuel storage and repair areas shall be located greater than 200 feet from ordinary high water whenever possible.

ii. Construction material staging areas shall be located greater than 200 feet from the OHWM, except during construction and assembly periods.

iii. Service roads shall be of a size that is minimally necessary to safely accomplish maintenance and repair of the facility, and shall be designed and located to minimize vegetation removal and erosion and sedimentation impacts.

iv. Hazardous and/or toxic materials storage shall be prohibited within shoreline jurisdiction and shall be prevented from entering the water through accidental spillage at staging or storage areas located outside immediate shoreline jurisdiction.

4. Structural Development

a. Powerhouses/penstock

i. These shall be designed, located and constructed in such a manner as to avoid extensive topographical alteration and to minimize or avoid, as much as possible, impacts to the natural features of the shoreline.

ii. These structures shall be designed and located to minimize removal of riparian vegetation and return flow to the stream in as short a distance as possible.

iii. Penstocks shall be designed, located and constructed so as to present as low a profile as possible.

iv. Facilities shall be located so as not to adversely impact sites having historic, cultural, scientific or educational value, as identified by the appropriate authorities.

v. All diversion structures shall be designed to permit the natural transport of bedload materials.

vi. Powerhouses shall be located a minimum of 50 feet from the OHWM, provided that this does not apply to raceways.

b. Improvements

i. On run-of-the-river developments, impoundments shall be located in such a manner as to minimize impacts to natural scenic values.

ii. Subject to the approval of the appropriate state authority, instream structures shall provide for adequate upstream and downstream migration of anadromous fish, where applicable.

c. Utility Transmission Lines

i. Where practicable, transmission lines shall be located underground.

ii. Utilities and transmission lines shall be located so as to minimize obstruction or degradation of a scenic view.

d. Mitigation

i. Mitigation shall be required of the proponent for the loss of fish and wildlife resources and natural systems including wetlands and sensitive areas. The mitigation required shall be commensurate to the value and type of resource or system lost. No net loss in function, value or acreage shall occur from such development.

ii. Where mitigation for loss of natural systems and resources is required, a mitigation plan shall be prepared by the proponent, and subject to the approval of the Washington Department of Fish and Wildlife, that details the objectives of the mitigation activities.

iii. Mitigation activities shall be monitored to determine the effectiveness of the mitigation plan. Monitoring shall be accomplished by a third party, subject to the approval of the City and shall have the concurrence of the Washington Department of Fish and Wildlife. Results of monitoring shall be publicly available.

iv. If mitigation is found to be ineffective, corrective action which satisfies the mitigation objectives will be required of the proponent.

v. If the mitigation is found to be inadequate or if adequate mitigation is determined to be impossible, then the application will be denied.

5. All shoreline development must conform to the General Policies and Provisions (see Chapter 3) and the Environment Designation Policies and Regulations (see Chapter 4) stated in this Master Program.

Recreational Development

Applicability

Water-related recreation accounts for a very high proportion of all recreational activity in the Pacific Northwest. The recreational experience may be an active one involving boating, swimming, fishing or hunting or the experience may be passive such as enjoying the natural beauty of a river or saltwater area.

Policies

1. Prevent concentration of use pressure at a few points by encouraging the development of a combination of areas and linear access (parking areas and easements for example), when providing public access to recreational locations such as fishing streams and hunting areas.

2. Carefully consider the total effect the development of a recreational site will have on the environmental quality and natural resources of an area.

3. Avoid wasteful use of the limited supply of recreational shoreline areas by locating parking facilities landward of any permitted structures and recreational beaches; safe access from these areas should be provided by walkways or other methods.

4. Allow intensive recreational developments only where sewage disposal and vector control can be accomplished to meet public health standards without adversely altering the natural features attractive for recreational uses.

5. Minimize surface runoff from recreational facilities.

Regulations

1. Recreation facilities shall be designed to take maximum advantage of and enhance the natural character of the shoreline area.

2. Motor vehicle use, to include two and three wheeled vehicles, shall not be permitted on beaches, dunes, or fragile shoreline areas except as necessary for official maintenance or the preservation of public health and safety.

3. All recreational developments shall satisfy county and state public health requirements.

Residential Development

Applicability

Residential development consist of one or more buildings, structures, lots, parcels or portions thereof which are designed for and used or intended to be used to provide a place of abode for human beings. This may include single-family residences, duplexes, other detached dwellings, floating homes, multi-family residences, apartments, condominiums, townhouses, mobile home parks, other similar group housing, subdivisions and short subdivisions. Also considered under residential development are accessory uses and structures normally applicable to residential uses (appurtenances) including but not limited to garages, sheds, fences and residential parking areas. Other accessory uses that would not be considered appurtenances would include swimming pools, cabanas and guest cottages. Residential development does not include hotels, motels or any other type of overnight or transient housing or camping facilities.

Note: The popularity of waterfront property along our marine, river and lake shores is increasing. Impacts of clearing and grading on fragile riparian habitats and shorelines, septic systems on water quality and leaching and runoff from lawn and garden chemical applications have a cumulative impact on our shorelines and associated water bodies. Although an owner-occupied single-family residence is exempt from the substantial development permit process, it still must comply with all of the provisions of this section and of the master program. Subdivisions and short subdivisions must also comply with all of the provisions of this section and the master program. All development is subject to the variance and conditional use requirements and permit process, when indicated.

Uses and facilities associated with residential development which are identified as separate use activities in this program, such as Boating Facilities, Piers and Docks, Bulkheads, Shoreline Stabilization and Flood Protection, Utilities, Landfill and Clearing and grading, are subject to the regulations established for those uses. This requirement is in addition to any special conditions relating to residential areas established in

this section. The General Provisions (Section 3) and Environment Designation Provisions (Section 4) also apply.

Exemptions

Although a substantial development permit is not required for construction within shoreline jurisdiction by an owner, lessee or contract purchaser of a single-family residence for his own use or the use of his family, such construction and all normal appurtenant structures must otherwise conform to this master program. "Appurtenances" are exempt structures that are necessarily connected to the use and enjoyment of a single-family residence and includes a garage, deck, driveway, utilities, fences and fill and grading which does not exceed 500 cubic yards. Only those accessory uses considered as appurtenances are exempt from shoreline permit requirements.

The Shoreline Management Act exempts from the requirement to obtain a substantial development permit the construction of any structure with a fair market value less than $2,500, which does not materially interfere with the normal public use of the waters or shorelines of the State. Although these structures are exempt from obtaining a substantial development permit, compliance with the provisions, prohibitions, regulations and development standards of this program is still required. Residential development that does not require a substantial development permit may still require a variance or conditional use permit. Developments other than a single-family residence including multi-family residential development, all subdivisions, floating homes and nonexempt accessory structures are not exempt from obtaining a substantial development permit.

Policies

1. Residential development should be permitted only where there are adequate provisions for utilities, circulation and access.

2. Residential development should be discouraged in environmentally sensitive areas including but not limited to wetlands, steep bluffs, floodways, etc.

3. The overall density of development, lot coverage and height of structures should be appropriate to the physical capabilities of the site.

4. Recognizing the single purpose, irreversible and space consumptive nature of shoreline residential development, new development should provide adequate setbacks and natural buffers from the water and ample open space among structures to provide space for outdoor recreation, protect natural features, preserve views and minimize use conflicts.

5. Adequate provisions should be made for protection of ground water supplies, erosion control, drainage systems, aquatic and wildlife habitat, preservation of geohydraulic processes and open space.

6. Residential development should be designed so as to preserve existing shoreline vegetation, control erosion and protect water quality, shoreline aesthetic characteristics, views and normal public use of the shoreline and the water.

7. Residential developments should provide dedicated and improved public access to the shoreline in a manner which is appropriate to the site and the nature and size of the development (see Section 3 "Public Access").

8. New residential development and accessory uses should be prohibited over water, in wetlands, in floodways and in geologic hazard areas.

9. New residential development should be encouraged to cluster dwelling units in order to preserve natural features, minimize physical impacts and reduce utility and road costs.

10. Residential development should not cause significant adverse impacts to or result in the displacement of other nearby shoreline uses including but not limited to forestry, aquaculture or recreation.

11. Sewage disposal facilities, as well as water supply facilities, should be provided in accordance

with appropriate state and local health regulations. Storm drainage facilities should be separated from sewage disposal systems.

12. Preference should be given to joint-use community piers and docks (in lieu of individual piers and docks for each waterfront lot) in all new subdivisions and planned residential developments. Joint-use shoreline facilities should be encouraged (including piers and docks, stair towers and other facilities).

13. Structures or other developments accessory to residential uses should be designed and located to blend into the site as much as possible. Accessory use and structures should be located landward of the principal residence.

Regulations

1. Residential development over water shall be prohibited.

2. Permit applicants may be required to submit a plan for maintaining shoreline stability or erosion control during and after construction.

3. Residential structures may not be located within 50 feet from the foot of a dike.

Transportation Facilities

Applicability

The construction of roads and railroads can limit access to shorelines, impair the visual qualities of water-oriented vistas, expose soils to erosion and retard the runoff of flood waters.

Policies

1. Design and maintain roads to minimize erosion and permit a natural movement of groundwater.

2. All debris, overburden, and other waste materials from construction should be disposed of in such a way as to prevent their entry by erosion from drainage, high water, or other means into any water body.

3. Locate and design all roads and railroads so that minimum alterations of natural conditions will be necessary.

4. Encourage pedestrian and other non-motorized travel facilities in all scenic corridors having public roadways.

5. Encourage, wherever feasible, provision of view points, rest areas and picnic facilities in public shoreline areas.

6. Promote the use of abandoned railroad right-of-way for trail systems, especially where they would provide public access to or enjoyment of the shorelines.

7. Encourage creation of trail systems adjacent to new roads and railroads where feasible.

Regulations

1. When roads and railroads are designed to act as flood control structures, applications for permits shall contain the following information (at a minimum):

    a. Existing flood profile and extent of flood inundation during the 100 year flood in the area of the proposed project;

    b. Projected flood profile and extent of flood inundation at the 100 year flood with the project in place;

    c. Present and projected flow rate of the 100 year flood at the project location.

2. Roads and railroads shall be designed to minimize the alteration of the natural flow of surface water in their vicinity except when alteration of water flow can be shown to be advantageous.

3. Where feasible, all cut and fill slopes shall be stabilized and planted with grasses, shrubs, and/or trees appropriate to the adjacent shoreline area.

4. Major roads and railroads shall cross shoreline areas by the shortest, most direct route feasible, unless such route would cause significant environmental damage.

5. Tilling of tidelands, shorelands and wetlands for road or railroad right-of-way shall be prohibited unless no viable upland alternative exists.

Utilities (Primary)

Applicability

Utilities are services which produce and carry electric power, gas, water, sewage, communications and oil. At this time the most feasible methods of transmission are the lineal ones of pipes and wires. The installation of this apparatus necessarily disturbs the landscape but can usually be planned to have minimal visual and physical effect on the environment.

Policies

1. Ensure that all areas be restored in a reasonable manner, seeded with a suitable cover and protected until vegetation has become established.

2. Locate utility trunk lines and facilities outside shoreline areas to the maximum extent feasible.

3. Attempt to locate, when economically feasible, utility lines and facilities, when they must be placed in a shoreline area, so as not to obstruct or destroy scenic views.

4. Locate utilities to meet the needs of future populations in areas planned to accommodate this growth.

5. Combine utility rights-of-way in shoreline areas to the maximum extent possible.

6. Locate sewage treatment, water reclamation, desalinization and power plants where they are compatible with other uses of water and shorelines.

Regulations

1. Applications for installation of utility facilities shall include the following (at a minimum):

    a. Explanation for the utility facility being located in a shoreline area;

    b. Alternative locations considered and reasons for their elimination evaluated;

    c. Location of all other utility facilities in the vicinity of the proposed project;

    d. Proposed method(s) of construction;

    e. Plans for reclamation of areas disturbed during construction;

    f. Landscape plans (where appropriate);

    g. Documentation that major utility developments are consistent with the city comprehensive plan for utilities.

2. Utility transmission lines shall be underground (underwater) when economically feasible and where not significantly detrimental to the environment. Underground utility lines shall be buried at an appropriate depth under the river bed in all river or stream crossings except where such lines are permanently affixed to a bridge structure.

3. Upon completion of installation of utility systems or of any maintenance project which disrupts the environment, the disturbed area shall be regraded to compatibility with the natural terrain and replanted (where appropriate) to prevent erosion and provide an attractive, harmonious vegetation cover. Maintenance care for newly planted vegetation shall be Provided until it is established.

4. Banks and dikes where such facilities enter or leave a body of water shall be returned to their pre-construction configuration, shall be thoroughly compacted and protected against erosion, and shall be maintained in a safe condition by the utility. Approval must be obtained from the Corps of Army Engineers before permit issuance.

CHAPTER 6 - SHORELINE MODIFICATION ACTIVITY REGULATIONS

Background and Purpose

Shoreline modification activities, referred to in this Shoreline Master Program as "activities" are those actions that modify the physical configuration or qualities of the shoreline area. Typically, activities are related to construction of a physical element such as a dike, breakwater, dredged basins, landfill, etc., but they can include other actions such as clearing, grading, application of chemicals, etc. Shoreline modification activities usually are undertaken in support of or in preparation for a shoreline "use." For example, landfill (activity) required for a cargo terminal (industrial use) or dredging (activity) to allow for a marina (boating facility use). A single use may require several different shoreline modification activities. For example, a marina and boatyard development may involve a breakwater, dredging, clearing and grading and landfill.

The distinction between shoreline uses and modification activities has proven a useful one because uses generally are ongoing and the policies and regulations related to them must deal with functional relationships inherent in the individual uses. Activities represent a physical alteration of the shoreline so activity regulations deal with physical impacts.

General Shoreline Modification Provisions

Applicability

Shoreline stabilization and flood protection are actions taken primarily to address erosion impacts to upland property and improvements caused or associated with current, flood, wake or wave action. These actions include structural and nonstructural methods including but not limited to: riprap, bulkheads, jetties, groins, beach nourishment and bioengineering/vegetative management methods. These provisions should be used for all shoreline modifications activities whether such proposals address a single property or multiple properties. Flood hazard management activities should also be reviewed under the provisions of the Flood Hazard Management section of Chapter 5, Shoreline Use Policies and Regulations.

Policies

1. Riprapping and other bank stabilization measures should be located, designed and constructed primarily to prevent damage to existing development. All new development should be located and designed to prevent or minimize the need for shoreline stabilization measures and flood protection works. New development requiring shoreline stabilization should be discouraged.

2. Stabilization and protection works which are more compatible with ongoing shore processes and more flexible for long-term streamway management and more natural in appearance such as vegetative stabilization should be encouraged over structural means such as concrete bulkheads or extensive riprap revetments.

3. Structural solutions to reduce shoreline damage should be allowed only after it is demonstrated that nonstructural solutions would not be able to reduce the damage.

4. Use of car bodies, demolition debris, concrete rubble, scrap building equipment or appliances for shoreline stabilization should be prohibited.

5. Substantial stream channel direction modifications, realignment and/or straightening should be discouraged as a means of shoreline stabilization and flood protection.

6. The design of stabilization or protection works should provide for the long term multiple use of streamway resources and public access to public shorelines. In the design of publicly financed or

subsidized works, consideration should be given to providing public pedestrian access to shorelines for low-intensity outdoor recreation.

7. Natural features such as snags, stumps or uprooted trees that support fish and other aquatic systems, should be left undisturbed.

8. Shorelines existing in their natural state should be preserved in their natural state, free of shoreline modification.

9. All flood protection measures should be placed landward of the natural floodway boundary and wetlands (which include marshes, bogs and swamps) which are associated with the water body proper.

10. Beach restoration/enhancement using naturally regenerating systems for the prevention and control of beach erosion should be required rather than bulkheads and other structures where:

    a. The length and configuration of the beach will accommodate such systems;

    b. Such protection is a reasonable solution to the needs of the specific site; and

    c. Beach restoration/enhancement will accomplish one or more of the following objectives:

        i. Recreate or enhance natural shoreline conditions;

        ii. Create or enhance natural habitat;

        iii. Reverse otherwise erosion prone conditions;

        iv. Enhance access to the shoreline, especially to public shorelines.

Regulations

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

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

3. The City shall require and utilize the following information, in addition to the standard permit information requirements contained in WAC 173-27, during its review of shoreline stabilization and flood protection proposals:

    a. Purpose of project;

    b. Hydraulic characteristics of the shore within 1/2 mile on each side of the proposed project;

    c. Existing shoreline stabilization and flood protection devices within 1/2 mile on each side of the proposed project;

    d. Construction material and methods;

    e. Physical, geological and/or soil characteristics of the area;

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

    g. Alternative measures (including nonstructural) which will achieve the same purpose.

4. The City shall require and utilize the following information, in addition to the standard permit information requirements contained in WAC 173-27, in its review of all shoreline modification proposals:

   a. Construction materials (e.g. type, dimensions, design);

   b. Method of construction (e.g. source of backfill, erosion controls);

   c. Location of project relative to toe and crest of uplands and upland structures;

   d. For marine waters: the ordinary high water mark, mean higher high and extreme high water levels such as the highest recorded level or the 100-year flood elevation. For freshwater: the ordinary high water mark of the 100-year flood level.

   e. Net direction of littoral drift changes and tidal currents (if any);

   f. General direction and speed of prevailing winds;

   g. Profile rendition of beach and uplands;

   h. Beach type, slope and material;

   i. Uplands type, slope and material;

   j. Soil types (S.C.S.);

   k. Physical or geologic stability of uplands; and

   l. Potential impact upon area shore processes, adjacent properties and upland stability.

5. Shoreline stabilization and flood protection measures should not be designed and constructed in such a manner as to result in increased channelization of normal stream flows.

6. River and stream channel direction modification, realignment and straightening are prohibited unless they are essential to uses that are consistent with this Program and the only feasible method available.

7. Flood control diking should be landward of the floodway (100-year frequency) and any wetlands associated or directly interrelated and interdependent with the river.

8. Upon project completion, all disturbed shoreline areas shall be restored to as near preproject configuration as possible and replanted with native grasses, shrubs, and/or trees in keeping with existing bank vegetation. If native species cannot be obtained, acceptable substitutes may be used for stabilization purposes.

9. Dikes and levees should be of sufficient height to protect adjacent lands from the predictable annual flood.

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

11. Use of car bodies, scrap building materials, asphalt from street work, or any discarded pieces of equipment or appliances for the stabilization of shorelines shall be prohibited.

12. All shoreline modification activities (or state the particular, e.g. breakwaters) must be in support of an allowable shoreline use that is in conformance with the provisions of this Master Program. All shoreline modification activities not in support of a conforming allowable use are prohibited, unless it can be demonstrated that such activities are necessary and in the public interest for the maintenance of shoreline environmental resource values.

13. All shoreline development must conform to the General Provisions (see Section 3) and the Environment Designation Provisions (see Section 4) stated in this Master Program.

Shoreline Stabilization

The following shoreline stabilization methods are organized from "soft" to "hard". The use of "soft" methods is the preferred "best practices" choice when considering shoreline stabilization. Policies and Regulations are included for the following shoreline stabilization measures:

1. Beach Restoration and Enhancement
2. Bioengineering
3. Revetments (Riprap)
4. Bulkheads
5. Breakwaters, Jetties, Rock Weirs and Groins
6. Dikes and Levees

Beach Restoration and Enhancement

Applicability

Beach enhancement is the alteration of terrestrial and tidal shorelines along with submerged shorelines for the purpose of stabilization, recreational enhancement, and aquatic habitat creation or restoration using native or similar material. The materials used are dependent on the intended use. For recreation purposes various grades of clean sand or pea gravel is often used to create a beach. To restore or recreate a shore feature or an underwater aquatic environment such as a reef may require a rock matrix and/or combination of other materials appropriate for the intended environment.

Policies

1. All beach enhancement projects should ensure that aquatic habitats, water quality and flood holding capacity are not degraded by the action.
2. Where possible, choose self-maintaining enhancement designs over those dependent on regular maintenance.
3. Require supplementary beach nourishment where structural stabilization works are likely to increase impoverishment of existing beach materials at or downdrift from the project site.
4. Beach enhancement should not extend waterward more than necessary to achieve the intended results.

Regulations

1. Beach enhancement may be permitted when the applicant has demonstrated that no significant change in littoral drift or river currents will result which will adversely affect adjacent properties or habitat.
2. Natural Beach Restoration/Enhancement
    a. Design Alternatives. Design alternatives shall include the best available technology such as, but not limited to:

i. Gravel berms, drift sills, beach nourishment and beach enhancement when appropriate;

ii. Planting with short-term mechanical assistance, when appropriate. All plantings provided shall be maintained.

b. Design Criteria. Natural beach restoration/enhancement shall not:

i. Detrimentally interrupt littoral drift, or redirect waves, current or sediments to other shorelines;

ii. Result in any exposed groin-like structures; Provided: small "drift sill" groins may be used as a means of stabilizing restored sediment where part of a well planned beach restoration program;

iii. Extend waterward more than the minimum amount necessary to achieve the desired stabilization;

iv. Create "additional dry land"; and

v. Disturb significant amounts of valuable shallow water fish/wildlife habitat without appropriate mitigation of the impacts.

c. Natural Beach Restoration Construction Standards.

i. The size and/or mix of new materials to be added to a beach shall be as similar as possible to that of the natural beach sediment, but large enough to resist normal current, wake or wave action at the site.

ii. The restored beach shall approximate, and may slightly exceed, the natural beach width, height, bulk or profile (but not as much as to obviously create additional dry land);

3. Beach enhancement is prohibited within spawning, nesting or breeding habitat that would be adversely effected by it and also where littoral drift of the enhancement materials adversely effects adjacent spawning grounds or other areas of biological significance.

4. Beach enhancement is prohibited if it significantly interferes with the normal public use of the navigable waters of the state without proper mitigation of the identified impacts.

5. All shoreline modification activities shall be in support of a shoreline use that is in conformance with the provisions of this master program unless it can be demonstrated that such activities are necessary and in the public interest for the maintenance of shoreline environmental resources.

Bioengineering

Applicability

Bioengineering is the term given to the practice of using natural vegetative materials to stabilize shorelines and prevent erosion. This may include use of bundles of stems, root systems, or other living plant material; soft gabions, fabric or other soil stabilization techniques; and limited rock toe protection where appropriate. Bioengineering projects often include fisheries habitat enhancement measures such as anchored logs or root wads in project design. Such techniques may be applied to creeks, rivers, lakes, reservoirs, and marine waters. Bioengineering may also be applied in upland areas away from the immediate shoreline.

The use of bioengineering as a shoreline stabilization technique is seen as an alternative to riprap, concrete and other structural solutions. It provides habitat while maintaining and preserving the natural character of the shoreline. Bioengineering is the preferred "best practices" choice when considering shoreline stabilization. Combining bioengineering techniques with armored revetments is also encouraged over

singularly employing riprap or other types of armored revetment enhancement of existing riprap shorelines should be considered to restore lost riparian/shoreline habitat and public values.

Policies

1. All bioengineering projects should ensure that water quality, fish and wildlife habitats and flood holding capacity are not degraded. Bioengineering projects should be designed and scheduled to minimize impacts to natural resources and to optimize survival of new plantings.

2. Whenever possible, the design of bioengineering projects should incorporate self-maintaining vegetation and materials over those requiring routine maintenance.

3. Bioengineering projects should extend no further waterward than is necessary to achieve intended results.

4. Shoreline stabilization through bioengineering should use native vegetation wherever possible.

5. Bioengineering projects should include buffers, fencing and/or other measures to avoid disturbance of the project site by livestock and vehicles.

6. Structural soil stabilization components including riprap, should be kept to a minimum in such projects and designed to last only until vegetation is well established. Bioengineering projects do not typically rely on long-term structural (bank hardening) measures.

7. Bioengineering projects should follow recommended best management practices for establishing/restoring vegetation in shoreline and riparian areas. Guidance from the Soil Conservation Service, the State Departments of Fish and Wildlife, and Ecology should be considered in project designs.

Regulations

1. The City shall require and utilize the following information, in addition to the standard permit information requirements contained in WAC 173-27, in its review of all bioengineering projects.

    a. proposed timing of all construction phases of the project,

    b. flow analysis, addressing hydrology and hydraulics and identifying expected flood flows compared with proposed timing of construction activities,

    c. existing soil types, bank materials and analysis of slope stability,

    d. proposed materials that will be used on-site including rock size, shape and quantity, plant materials, soil preparations that provide optimal planting mediums for the vegetation proposed, areas to be seeded, and fencing,

    e. existing and proposed slope profiles, including location of ordinary high water mark,

    f. design of transition areas between bioengineering site and adjacent properties (both up and downstream of project),

    g. documentation (including photos) of existing pre-construction shoreline characteristics.

2. All bioengineering projects shall use a diverse variety of native plant materials including trees, shrubs and grasses, unless demonstrated as not feasible for the particular site.

3. All cleared areas shall be replanted following construction and irrigated (if necessary) to ensure that within three years time all vegetation is fully reestablished. Areas that fail to adequately reestablish vegetation shall be replanted with approved plant materials until such time as the plantings are viable.

4. Bank protection in the form of a buffer zone shall be provided for a minimum of three years. The

buffer zone shall exclude livestock, vehicles, and/or other activities that could disturb the site. The most effective buffer zone protection measure is fencing.

5. All bioengineering projects shall be monitored and maintained as necessary. Areas damaged by pests and/or the elements shall be promptly repaired.

6. All construction and planting activities shall be scheduled to minimize impacts to water quality and fish and wildlife aquatic and upland habitat and to optimize survival of new vegetation.

Revetments (RIPRAP)

Applicability

A revetment is a sloped shoreline structure built to protect an existing eroding shoreline or newly placed fill against waves, wakes, currents, or weather. Revetments are most commonly built of randomly placed boulders (riprap), but may also be built of sand-cement bags, paving or building blocks, gabions (rock filled wire baskets), or other systems and materials. The principal features of a revetment, regardless of type, are:

1. Heavy armor layer;

2. Filter layer; and

3. Toe protection.

This Section deals specifically with the modification activity of revetments. For additional policies and regulations see Shoreline Stabilization, "General Shoreline Modification Provisions" in this Chapter.

Policies

1. The use of armored structural revetments should be limited to situations where it is demonstrated that nonstructural solutions such as bioengineering, setbacks and buffers or any combination thereof will not provide sufficient shoreline stabilization.

2. The construction and maintenance of revetments should not result in the loss or reduction of shoreline environmental resource values. If a loss or reduction cannot be avoided, mitigation should be provided.

3. Revetments should be designed, improved and maintained to provide public access whenever possible.

Regulations - General

1. All forms of revetments shall be constructed and maintained in a manner that does not reduce water quality and/or fisheries habitat.

2. Design of the proposed revetment shall incorporate proper consideration of:

   a. Data on local geophysical conditions;

   b. Data on stream flow, velocity, and/or flood capacity; and

   c. Effects on adjacent properties.

3. Bank revetments, where permitted, shall be placed at the Ordinary High Water Mark of the shoreline.

4. Design of revetments shall include and provide improved access to public shorelines whenever possible and appropriate.

5. Revetments must be in support of an allowable shoreline use that is in conformance with the provisions of this Master Program, unless it can be demonstrated that such activities are necessary and in the public interest for the maintenance of shoreline environmental resources.

6. All shoreline development must conform to the General Provisions (see Section 3) and the Environment Designation Provisions (see Section 4) stated in this master program.

Regulations - Riprap

1. Riprap shall be constructed using techniques and materials that will enhance natural shoreline values and functions, including fish and wildlife habitat, water quality, vegetation and aesthetics. The following techniques and materials shall be used:

    a. Riprap material shall consist of clean quarried rock, free of loose dirt and any pollutants, and shall be of sufficient size and weight to prevent movement by wave or current action. Tires, automobile bodies, scrap metal, paper products and other inappropriate solid waste materials, shall not be used for riprap.

    b. Use of downed logs, snags or rock-work to enhance habitat and to provide a more natural appearance to the shoreline shall be incorporated into the design where appropriate.

    c. Where on-site environmental conditions allow, vegetation shall be integrated into the riprap design to reduce erosion, provide cover, shade and habitat and improve the natural appearance of the shoreline, consistent with the applicable vegetation management provisions of this Master Program.

Regulations - Design

1. When permitted, the location and design of revetments shall be performed using appropriate engineering principles, including guidelines of the U.S. Soil Conservation Service and the U.S. Army Corps of Engineers.

2. If an armored revetment is employed the following design criteria shall be met:

    a. The size and quantity of the material shall be limited to only that necessary to withstand the estimated energy intensity of the hydraulic system;

    b. Filter cloth must be used to aid drainage and help prevent settling; and

    c. The toe reinforcement or protection must be adequate to prevent a collapse of the system from river scouring or wave action for the anticipated life of the project.

3. The area shall be restored as nearly as possible to preproject condition including replanting with native species and maintenance care until the newly planted vegetation is established.

Bulkheads

Applicability

Bulkheads or seawalls are structures erected parallel to and near the high-water mark for the purpose of protecting adjacent uplands from the action of waves or currents. Bulkheads are constructed of steel, timber or concrete piling, and may be either of solid or open piling construction.

While bulkheads and seawalls may protect the uplands, they do not protect the adjacent beaches, and in many cases are actually detrimental because they accelerate the erosion of sand in front of the structures.

Policies

1. Locate and construct bulkheads and seawalls in a manner which will not result in adverse effects on nearby beaches, and will minimize alterations of the natural shoreline.

2. Locate, design and construct bulkheads and seawalls in such a way as to minimize damage to fish and shellfish habitats.

3. Carefully consider the effect of a proposed bulkhead on public access to publicly owned shorelines.

4. When possible, design bulkheads and seawalls to blend in with the surroundings and not to detract from the aesthetic qualities of the shoreline.

Regulations

1. Bulkheads shall be allowed only when evidence is presented that one of the following conditions exists:

    a. Serious erosion is threatening an established use on subject property;

    b. A bulkhead is necessary to stabilize an existing beach;

    c. A bulkhead is the preferred method of stabilizing a landfill allowed by this program;

    d. There is a demonstrated need in connection with water dependent or water related commerce, industry or recreation.

2. Bulkheads will not be permitted in conjunction with new projects when other design alternatives, not requiring the use of bulkheads, are practicable.

3. Applications for bulkheads shall include the following (at a minimum):

    a. Type of construction;

    b. Elevation of the toe and crest of the bulkhead with respect to water levels;

    c. Purpose of bulkhead;

    d. Normal, low and high water elevations (when appropriate).

Dikes and Levees

Dikes are earth, concrete, metal or wood structures that are strategically placed to contain or withhold water. Such structures are located on each bank of the Stillaguamish Estuary to help protect the adjacent lands from frequent flooding. (See Landfills)

Dredging and Dredge Material Disposal

Applicability

Dredging is the removal of earth from the bottom of a stream, river, lake, bay or other water body for the purposes of deepening a navigational channel or to obtain use of the bottom materials for landfill.

Policies

1. Dredging should be regulated and controlled to minimize damage to existing ecological systems and natural resources of both the area to be dredged and the area for deposit of dredged materials.

2. Identify, with the assistance of the State Departments of Natural Resources, Game and Fisheries, and Army Corps of Engineers, soil deposit sites in water areas.

3. Regulate dredging of bottom materials for the purposes of obtaining fill material and improving navigation.

4. Encourage utilization of spoil transfer sites that can be used on a continuing basis.

5. Prohibit dredging in or the disposal of spoils on archeological sites that are listed on the Washington State Register of Historic Places until such time as they are released.

Regulations

1. Dredging shall only be permitted for the following purposes and only when other alternatives are impractical:

    a. To improve water quality or aquatic habitat;

    b. To maintain and improve navigability and water flow;

    c. To mitigate conditions which could endanger public safety;

    d. To create or improve public recreational opportunities.

2. Applications for dredging permits shall include the following information (at a minimum):

    a. Physical analysis of material to be dredged: material composition and amount, grain size, organic materials present, source of material, etc.;

    b. Chemical analysis of material to be dredged: volatile solids, chemical oxygen demand, (COD), grease and oil content, mercury, lead and zinc content, etc.;

    c. Biological analysis of material to be dredged;

    d. Information on stability of bedlands adjacent to proposed dredging and spoils disposal;

    e. Dredging procedure: time of dredging, volume to be dredged, method of dredging and spoils disposal;

    f. Spoil disposal area for current project and subsequent maintenance dredging (when

appropriate) including: location, size, capacity and physical characteristics.

3. Dredge spoils shall be deposited at sites which are consistent with the landfill section of this program.

    a. Prior to commencement of disposal operations, the disposal site's dikes shall be improved such that no spoils bearing discharge water may escape. The site's dikes shall be kept in this condition throughout any disposal operations;

    b. The settling area within the dikes shall be maintained sufficiently large so that return water carries a minimum of suspended sediment. The outlet pipe shall be moved from time to time as may be necessary to comply with this requirement;

    c. After approval of the shoreline permit, notice shall be given to the City of Stanwood, in writing, at least two weeks prior to the commencement of any disposal operations.

Landfill

Applicability

Landfill is the creation of dry upland area by the filling or depositing of sand, soil or gravel into a wetland or floodplain area. Landfills also replace shoreland areas removed by wave action or the normal erosive processes of nature. However, landfills tend to destroy the natural character of land, create unnatural heavy erosion and silting problems and diminish the existing water surface. However, in a floodplain area landfill is an important aspect of the flood management program in places where urbanization is desired.

Policies

1. Shoreline fills or cuts should be designed and located so that significant damage to existing ecological values or natural resources, or alteration of local currents will not occur, creating a hazard to adjacent life, property and natural resources systems.

2. All perimeters of fills should be provided with vegetation, retaining walls, or other mechanisms for erosion prevention.

3. Fill materials should be of such quality that they will not cause problems of water quality.

Regulations

1. Structures or fills shall not be permitted if they restrict the passage of flood flows or increase flood heights or velocities to an extent which would cause significant flood damage to existing development. Structures and fills that do not create the above conditions may be permitted in the flood plain Provided they are flood-proofed to ensure the safety of the structure and inhabitants during a flood.

2. Applications which include landfilling shall include the following information:

    a. Physical, chemical and biological character of landfill material;

    b. Source of landfill material;

c. Method of placement and compaction;

d. Type of proposed surfacing;

e. Method of perimeter erosion control;

f. Proposed use of filled area.

3. The perimeter of all landfills shall be provided with some means to control erosion, such as vegetation, retaining walls, or other mechanisms.

4. A U.S. Army Corps of Engineers permit is required for all structures and work performed in navigable waters of the United States.

5. U.S. Army Corps of Engineers permits are required prior to the discharge of dredged or fill material on wetlands adjacent and contiguous to navigable water of the United States.

Piers, Docks, Floats and Buoys

Applicability

A pier or dock is a structure built over or floating upon the water used as a landing place for marine transport or for recreational purposes. While floating docks generally create less of a visual impact than those on piling, they constitute an impediment to boat traffic and shoreline trolling. Floating docks can also alter beach sand patterns in areas where tides and littoral drift are significant.

Policies

1. The use of floating docks should be encouraged in those areas where scenic values are high and where conflicts with recreational boaters and fishermen will not be created.

2. The use of open pile piers should be encouraged where there is significant littoral drift and where scenic values will not be impaired.

3. The use of community piers and docks should be encouraged in all new major waterfront subdivisions. In general, encouragement should be given to the cooperative use of piers and docks.

4. The problem of the proliferation of single purpose private piers should be recognized and addressed and criteria established in the use regulations for joint use of facilities.

5. The capacity of shoreline sites to absorb the impact of waste discharges from boats including gas and oil spillage should be carefully considered when identifying suitable sites for boat docking facilities.

Regulations - General Design and Construction Standards

1. Pilings must be structurally sound prior to placement in the water.

2. Piles, floats or other members in direct contact with water shall not be treated or coated with biocides such as paint, or pentachlorophenol. Use of arsentate compounds or creosote treated members is

discouraged and shall only used in accordance with the following provisions:

a. In freshwater, untreated wood, precast concrete or other nontoxic alternatives shall be used unless the applicant can demonstrate that no feasible alternative to toxic treatments is available which will provide the structural characteristics necessary for the project.

b. In saltwater areas characterized by significant shellfish populations or in shallow embayments with poor flushing characteristics, untreated wood, precast concrete or other nontoxic alternatives shall be used unless the applicant can demonstrate that no feasible alternative to toxic treated wood is available which will provide the structural characteristics necessary for the project. In all cases where toxic treated products are allowed, products, methods of treatment and installations shall be limited to those that are demonstrated as likely to result in the least possible damage to the environment based on current information.

3. No over-water field applications of paint, preservative treatment or other chemical compounds shall be permitted except in accordance with best management practices set forth in the marina section of this master program.

4. Piers shall utilize the minimum number of pilings necessary, favoring large spans on fewer pilings over smaller spans on more pilings.

5. Pilings employed in piers or any other structure shall have a minimum vertical clearance of 1 foot above extreme high water.

6. All docks shall include stops which serve to keep the floats off the bottom of tidelands at low tide or water level.

7. If a bulkhead-like base is proposed for a fixed pier or dock where there is net positive littoral drift, the base shall be built landward of the ordinary high water mark or protective berms.

8. When plastics or other nonbiodegradable materials are used in float, pier or dock construction, precautions shall be taken to ensure their containment.

9. Overhead wiring or plumbing is not permitted on piers or docks.

10. Lighting should be the minimum necessary to locate the dock at night and should focus downward to minimize glare.

Regulations - Joint-Use Community Recreational Piers, Docks and Floats

1. All hotels, motels and multi-family residences proposing to provide moorage facilities shall be required to construct a single, joint-use moorage facility provided that the City may authorize more than one joint use moorage facility if a single facility would be inappropriate or undesirable given the specific conditions of the site. No more than one slip for every two units shall be allowed.

2. Joint-use facilities are encouraged in-lieu of individual moorage facilities.

3. Proposals for joint-use community piers and docks shall demonstrate and document by contract or covenant that adequate maintenance of the structure and the associated upland area will be provided by identified responsible parties.

4. Recreational floats shall be located as close to the shore as possible. They shall not be located farther waterward than existing floats and established swimming areas.

5. Floats must be built so that the deck surface is 1 foot above the water's surface and they must have reflectors for nighttime visibility.

6. Single property owner recreational floats shall not exceed 64 square feet.

7. Multiple property owners floats shall not exceed 96 square feet.

Regulations - Commercial/Industrial Facilities

These standards apply to piers and docks intended for any commercial or industrial use other than commercial moorage of boats in marinas.

1. Piers and docks will be permitted to the outer harbor line or combined U.S. Pier head/Bulkhead Line for water-dependent and for multiple use facilities if the majority use is water-dependent and public access can safely be provided. The length should be no more than that required for the draft of the largest vessel expected to moor at the facility. Maximum size of the pier or dock shall be no greater than necessary to serve the intended use, and will be determined by the City on a case-by-case basis.

2. Substantial development permits for docks or piers serving single commercial or industrial enterprises shall not be granted until adjacent commercial and/or industrial enterprises have been contacted regarding their water access needs and could realistically make use of a single moorage facility. Where joint use is feasible, permits for individual facilities shall not be granted.

3. Facilities and procedures for receiving, storing, dispensing and disposing of oil and other toxic products shall be designed to insure that such oil and other toxic products are not introduced into the water body.

4. Bulk storage for gasoline, oil and other petroleum products for any use or purpose is **prohibited** on piers and docks. Bulk storage means non portable storage in fixed tanks.

5. Storage for boat fueling facilities shall be located landward of the OHWM and meet the applicable policies and regulations for utilities (accessory and primary), commercial and industrial development.

6. Spill clean up facilities shall be available for prompt response and application at all piers and docks involved in oil and hazardous products transfer.

Regulations - Residential

1. Number

    a. For lots existing at the time this program is adopted, no more than one private, non commercial dock for residential or recreational purposes is permitted for each shoreline lot or parcel or contiguous group of lots or parcels in one ownership.

2. Use of Piers vs. Docks

    a. On river shorelines, only docks shall be permitted. Such facilities shall be securely anchored to

pilings to allow for changes in river level and shall be able to withstand 100-year frequency flooding, or be seasonably removable.

b. The use of docks shall be required in preference to piers in areas where scenic values are high.

3. Size

a. **Length:** Maximum length of a pier or dock shall be the minimum necessary to accomplish moorage for the intended boating use and shall be only so long as to obtain a depth of 4 feet of water as measured at mean low water in marine waters or as measured at ordinary low water in fresh water shorelines at the landward limit of the moorage slip.

b. **Width:** For private, single use docks, maximum length parallel to shore of the "T" end shall not exceed 10 feet. Maximum width of the walkway shall not exceed 4 feet and eight 8 feet at the immediate landing area deck.

c. For community piers and docks, maximum width and length will be as determined by the City on a case-by-case basis.

d. **Height:** Dock shall not exceed 3 feet in height above OHWM on the landward side and shall extend above the water surface one 1 foot at all other locations.

4. **Side yard Setbacks:** Docks shall be setback a minimum of 10 feet from side property lines, EXCEPT that community piers and docks may be located adjacent to or upon a side property line when mutually agreed to by contract/covenant with the owners of the adjacent property, a copy of which must be recorded with the County Auditor and filed with the application for permit.

CHAPTER 7 - DEFINITIONS

As used herein, the following words and phrases shall have the following meanings:

(1) "Act" means the Shoreline Management Act of 1971, chapter 90.58 RCW.

(2) "Accessory use' means any structure or use incidental and subordinate to a primary use or development.

(3) "Aquaculture" means the cultivation of fish, shellfish, and/or other aquatic animals or plants, including the incidental preparation of these products for human use.

(4) "Beach" means the zone of unconsolidated material that is moved by waves, wind and tidal currents, extending landward to the coastline.

(5) "Beach enhancement/restoration" means the process of restoring a beach to a state more closely resembling a natural beach, using beach feeding, vegetation, drift sills and other nonintrusive means as applicable.

(6) "Beach nourishment" means the controlled placement on the beach of sand or gravel to augment inadequate sediment input by natural erosion processes, or to mitigate for the adverse impacts of shoreline erosion control measures.

(7) "Best available technology (BAT)" means the most effective method, technique, or product available which is generally accepted in the field, and which is demonstrated to be reliable, effective and preferably low maintenance.

(8) "Biotechnical slope stabilization or erosion control" means a vegetative erosion control measure augmented or strengthened by structural measures.

(9) "Bottom land" means submerged land.

(10) "Buffer area" means a parcel or strip of land that is designed and designated to permanently remain vegetated in an undisturbed and natural condition to protect an adjacent aquatic or wetland site from upland impacts, to provide habitat for wildlife and to afford limited public access.

(11) "Bulkhead" means a vertical wall constructed of rock, concrete, timber, sheet steel, gabions, or patent system materials. Rock bulkheads are often termed "vertical rock walls." Seawalls are similar to bulkheads but more robustly constructed.

(12) "Clearing" means the destruction or removal of vegetation ground cover, shrubs and trees including but not limited to, root material removal and/or topsoil removal.

(13) "Community structure" means a building, dock, or other structure that is intended for the common use of the residents of a particular subdivision or community. It is not intended to serve as a public facility.

(14) "Comprehensive land use plan" means a generalized, coordinated land use policy statement adopted by the governing body of a county or city.

(15) "Conditional Use" means a use, development, or substantial development which is classified as a conditional use or is not classified within the applicable master program;

(16) "Consistency, internal" means that the parts of the plan must fit together so that no one feature precludes the achievement of any other.

(17) "Covered moorage" means boat moorage, with or without walls, that has a roof to protect the vessel.

(18) "Critical saltwater habitats" means kelp beds (members of the brown algal family Laminariales including: Alaria marginata, Alaria nana, Alaria tenuifolia, Egregia menziesii, Eisenia arborea, Pterygophora californica, Agarum cribosum, Agrarum fimbriatum, Costaria costata, Cymathere triplicata, Hedophyllum sessile, Laminaria spp., Pleurophycus gardneri, Dictyoneuropsis reticulata, Dictyoneurum californicum, Lessioniopsis littoralis, Macrocystis integrifolia, Nereocystis leutkeana, and Postelsia plamaeformis), eelgrass beds (Zostera spp.), surf smelt (Hypomesus pretiosus) spawning beds, rockfish (Sebastes spp.) settlement and nursery areas, and lingcod (Ophiodon elongatus) settlement and nursery areas.

(19) "Department" means the department of ecology.

(20) "Development" means the construction or exterior alteration of structures. Development shall also mean dredging, drilling, dumping, filling; the removal of any sand, gravel, or minerals; bulkheading, driving of piling or placing of obstructions. Also included under development is 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 Act at any state of water level.

(21) "Development regulations" means the controls placed on development or land use activities by a county or city, including, but not limited to the following: zoning ordinances, critical areas ordinances, all portions of a shoreline master program other than goals and policies approved or adopted under Chapter 90.58 RCW, official controls, planned unit development ordinances, subdivision ordinances, and binding site plan ordinances, together with any amendments thereto.

(22) "Development standards" means specific requirements placed on development, such as building height limits, shoreline setbacks, sewer requirements, etc., that are generally included as part of development regulations.

(23) "Director" means the director of the department of ecology.

(24) "Dredging" means excavation or displacement of the bottom or shoreline of a water body. Dredging can be accomplished with mechanical or hydraulic machines. Most dredging is done to maintain channel depths or berths for navigational purposes; other dredging is for shellfish harvesting, cleanup of polluted sediments, flood hazard reduction, or water intake maintenance.

(25) "Dune" means a hill or ridge of sand piled up by the wind and/or wave action.

(26) "Ecology" means the Washington State Department of Ecology.

(27) "EIS" means Environmental Impact Statement.

(28) "Emergency" means an unanticipated and imminent threat to public health, safety, or the environment, which requires immediate action within a time too short to allow full compliance with the master program. Emergency construction is construed narrowly as that which is necessary to protect property from the elements (RCW 90.58.030(3eiii).

(29) "Enhancement" Alteration of an existing resource to improve or increase its characteristics and processes without degrading other existing functions. Enhancements are to be distinguished from resource creation or restoration projects.

(30) "Erosion" The wearing away of land by the action of natural forces.

(31) "Extreme low tide" means the lowest line on the land reached by a receding tide.

(32) "Floating home" means a structure designed and operated substantially as a permanently based over water residence. Floating homes are not vessels and lack adequate self-propulsion and steering equipment to operate as a vessel. Floating homes are typically served by permanent utilities and semi-permanent anchorage or mooring facilities. See also houseboat.

(33) "Floodplain" (synonymous with 100-year floodplain) means the land area susceptible to being inundated by stream derived waters with a 1 percent chance of being equaled or exceeded in any given year. The limits of this area are based on flood regulation ordinance maps or a reasonable method that meets the objectives of the SMA.

(34) "Floodway" means those portions of the area of a river valley lying streamward from the outer limits of a watercourse upon which flood waters are carried during periods of flooding that occur with reasonable regularity, although not necessarily annually. Floodways are identified, under normal conditions, by changes in surface soil conditions or changes in the type or quality of vegetative ground cover conditions. The floodway shall not include those lands that can reasonably be expected to be protected from floodwaters by flood control devices maintained by or maintained under license from the federal government, the state, or a political subdivision of the state. The limits of the floodway are based on flood regulation ordinance maps or by a reasonable method, which meets the objectives of the Act (RCW 90.58.030(2g).

(35) "Forest practices" means any activity conducted on or directly related to forest land and relating to growing, harvesting, or processing timber. These activities include, but are not limited to: road and trail construction, final and intermediate harvesting, precommercial thinning, reforestation, fertilization, prevention and suppression of disease and insects, salvage of trees and brush control. See WAC 222-16-010(21).

(36) "Grading" means structures composed of masses of rocks, rubble, or masonry held tightly together usually by wire mesh so as to form blocks or walls. Sometimes used on heavy erosion areas to retard wave action or as foundations for breakwaters or jetties.

(37) "Groin" (also referred to as a spur dike or rock weir) means a barrier-type structure extending from the backshore or stream bank into a water body for the purpose of the protection of a shoreline and adjacent upland by influencing the movement of water and/or deposition of materials.

(38) "Growth Management Act" or "GMA" means chapter 36.70A RCW and any amendments thereto.

(39) "Habitat" means the place or type of site where a plant or animal naturally or normally lives and grows.

(40) "Height" is measured from average grade level to the highest point of a structure: *Provided*, That television antennas, chimneys, and similar appurtenances shall not be used in calculating height, except where such appurtenances obstruct the view of the shoreline of a substantial number of residences on areas adjoining such shorelines, or the applicable master program specifically requires that such appurtenances be included: *Provided further*, That temporary construction equipment is

excluded in this calculation. (WAC 173-27-030(9)).

(41) "Houseboat" means a vessel, principally used as an over water residence. Houseboats are licensed and designated for use as a mobile structure with detachable utilities or facilities, anchoring

and the presence of adequate self-propulsion and steering equipment to operate as a vessel. Principal use as an over-water residence means occupancy in a single location, for a period exceeding two months in any one calendar year. This definition includes live-aboard vessels.

(42) "In-kind replacement" means to replace wetlands, streams, marine habitats, or biota with substitute habitat, flora, or fauna whose characteristics closely match those destroyed, displaced, or degraded by an activity, and providing the same species of flora and fauna replacement.

(43) "Intertidal" means the substratum from the extreme low water of spring tides to the upper limit of spray or influence of ocean-driven salts. It includes all land that is sometimes submerged, but sometimes exposed to air.

(44) "Jetty" means a structure(s) usually projecting out into the sea at the mouth of a river for the purpose of protecting a navigation channel, a harbor or to influence water currents.

(45) "Landfill" means the placement of soil, sand, rock, gravel existing sediment or other material (excluding solid waste) to create new land, tideland, or bottom land along the shoreline waterward of the ordinary high water mark or on wetland or upland areas in order to raise the elevation.

(46) "Levee" means a large dike or embankment, often having an access road along the top, which is designed as part of a system to protect land from floods.

(47) "Live-aboard vessel" See houseboat.

(48) "Local government" means any county, incorporated city or town which contains within its boundaries shorelines of the state subject to chapter 90.58 RCW;

(49) "Mitigation" means the following listed in order of preference, (a) being the most preferred:

(a) Avoiding the impact altogether by not taking a certain action or parts of an action;

(b) 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;

(c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;

(d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;

(e) Compensating for the impact by replacing, enhancing, or providing substitute resource or environments; and

(f) Monitoring the impact and the compensation project and taking appropriate corrective measures.

See WAC 197-11-768.

(50) "Natural riparian habitat corridor" means the streamside environment designed and

maintained primarily for fish and wildlife habitat, water quality improvement, groundwater recharge, and secondarily for flood flow attenuation and storage, while allowing controlled public access that avoids damage to natural resources.

(51) "Nonstructural (or soft) erosion control" means measures which include a variety of measures including beach nourishment, vegetative erosion control, biotechnical slope stabilization or erosion control, and land use approaches such as setbacks for new construction and relocation for existing construction.

(52) "Non-water-oriented uses" means those uses which have little or no relationship to the shoreline and are not considered priority uses under the SMA. Examples include professional offices, automobile sales or repair shops, mini-storage facilities, multi-family residential development, department stores, and gas stations.

(53) "Off-site replacement" means to replace wetlands or other shoreline environmental resources away from the site on which a resource has been impacted by a regulated activity.

(54) "On-site replacement" means to replace wetlands or other shoreline environmental resources at or adjacent to the site on which a resource has been impacted by a regulated activity.

(55) "Ordinary highwater mark" is that point on all lakes, streams, and tidal water that will be found by examining the 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 existed on June 1, 1971 as it may naturally change thereafter, or as it may change thereafter in accordance with permits issued by a local government or department; P*rovided*, That in any area where the ordinary highwater mark cannot be found, the ordinary highwater mark adjoining saltwater shall be the line of mean higher high tide and the ordinary highwater mark adjoining freshwater shall be the line of mean high water.

(56) "Out-of-kind replacement" means to replace wetlands or other shoreline environmental resources with substitute wetlands or other shoreline resources whose characteristics do not closely approximate those destroyed or degraded by a regulated activity.

(57) "Public interest" means the interest shared by the citizens of the state or community at large in the affairs of government, or some interest by which their rights or liabilities are affected such as an effect on public property and resources or on health, safety, or general welfare resulting from a use or development.

(58) "Public trust doctrine" means that body of case law addressing the public's rights, duties and interests in water areas including navigation, commerce, environmental quality, fish and wildlife and recreation.

(59) "RCW" means the Revised Code of Washington.

(60) "Residential development" means development which is primarily devoted to or designed for use as a dwelling(s).

(61) "Revetments" mean erosion protection measures constructed on a slope, normally in the range of 1.5:1 to 2:1 (horizontal: vertical). Construction materials may be rock riprap, gabions, interlocking concrete parent units, or similar materials.

(62) "Salmon and steelhead habitats" means gravel bottomed streams, creeks, and rivers used for spawning; streams, creeks, rivers, side channels, ponds, lakes, and wetlands used for rearing, feeding, adult residency, cover, and refuge from predators and high water; streams, creeks, lakes, rivers, estuaries, and shallow areas of saltwater bodies used as migration corridors; and salt water bodies used for rearing, feeding, adult residency, and refuge from predators and currents.

(63) "SEPA (State Environmental Policy Act)" requires state agencies, local governments and other

lead agencies to consider environmental factors when making most types of permit decisions, especially for development proposals of a significant scale. As part of the SEPA process, EISs may be required to be prepared and public comments solicited.

(64) "Setback" means a required open space, specified in shoreline master programs, measured horizontally upland from and perpendicular to the ordinary high water mark.

(65) "Shall" means a mandate; the particular action must be done.

(66) "Shorelands" or "shoreland areas" 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, and tidal waters which are subject to the provisions of this chapter; the same to be designated as to location by the department of ecology. Any county or city may determine that portion of a one-hundred-year-flood plain to be included in its master program as long as such portion includes, as a minimum, the floodway and the adjacent land extending landward two hundred feet therefrom;

(67) "Shoreline environment designations" means the categories of shorelines established by local shoreline master programs in order to provide a uniform basis for applying policies an use regulations within distinctively different shoreline areas. The basic recommended system classifies shorelines into six distinct environments (high intensity, shoreline residential, low intensity-resource management, conservancy natural and aquatic.)

(68) "Shoreline jurisdiction" means the term describing all of the geographic areas covered by the SMA, related rules and the applicable master program. Also, such areas within a specified local government's authority under the SMA. See definitions of "shorelines", "shorelines of the state", and "shorelines of state-wide significance."

(69) "Shoreline Management Act" or "SMA" means the Shoreline Management Act of 1971, chapter 90.58 RCW.

(70) "Shoreline master program or master program" means the comprehensive use plan for a described area and the use regulations, together with maps, diagrams, charts, or other descriptive material and text, a statement of desired goals, and standards developed in accordance with the policies enunciated in RCW 90.58.020.

As provided in RCW 36.70A.480, the goals and policies of a shoreline master program for a county or city approved under chapter 90.58 RCW shall be considered an element of the county or city's comprehensive plan. All other portions of the shoreline master program for a county or city adopted under chapter 90.58 RCW, including use regulations, shall be considered a part of the county or city's development regulations.

(71) "Shoreline modification" means physical construction on or alteration to a shoreline area. Examples of shoreline modifications include piers, docks, jetties, bulkheads, rip-rap, beach enhancement, and modifications to riparian and wetland areas.

(72) "Shorelines" means all of the water areas of the state, including reservoirs, and their associated

shorelands, together with the lands underlying them; except:

(a) Shorelines of state-wide significance;

(b) Shorelines on segments of streams upstream of a point where the mean annual flow is 20 cubic feet per second or less, and the wetlands associated with such upstream segments;

and

(c) Shorelines on lakes less than 20 acres in size and wetlands associated with such small lakes.

(73) "Shorelines hearings board (SHB)" means a six member quasi-judicial body, created by the SMA, which hears appeals by any aggrieved party on the issuance of a shoreline permit, enforcement penalty and appeals by local government on Ecology approval of master programs, rules, regulations, guidelines or designations under the SMA. See RCW 90.58.170 and RCW 90.58.180.

(74) "Shorelines of state-wide significance" means the following shorelines of the state:

(a) The area between the ordinary highwater mark and the western boundary of the state from Cape Disappointment on the south to Cape Flattery on the north, including harbors, bays, estuaries, and inlets;

(b) Those areas of Puget Sound and adjacent saltwaters and the Strait of Juan de Fuca between the ordinary highwater mark and the line of extreme low tide as follows:

i) Nisqually Delta—from DeWolf Bight to Tatsolo Point;

ii) Birch Bay—from Point Whitehorn to Birch Point;

iii) Hood Canal—from Tala Point to Foulweather Bluff;

iv) Skagit Bay and adjacent area—from Brown Point to Yokeko Point; and

v) Padilla Bay—from March Point to William Point;

(c) Those areas of Puget Sound and the Strait of Juan de Fuca and adjacent saltwaters north to the Canadian line and lying seaward from the line of extreme low tide;

(d) Those lakes, whether natural, artificial, or a combination thereof, with a surface acreage of 1,000 acres, or more, measured at the ordinary highwater mark;

(e) Those natural rivers or segments thereof, as follows:

i) Any west of the crest of the Cascade range downstream of a point where the mean annual flow is measured at 1,000 cubic feet per second, or more;

ii) Any east of the crest of the Cascade range downstream of a point where the annual flow is measured at 200 cubic feet per second, or more, or those portions of rivers east of the crest of the Cascade range downstream from the first 300 square miles of drainage area, whichever is longer;

(f) Those shorelands associated with (a), (b), (d), and (e) of this subsection.

(75) "Shorelines of the state" means the total of all "shorelines" and "shorelines of state-wide significance" within the state.

(76) "Should" means the particular action is required, unless there is a compelling reason against it.

(77) "State master program" means the cumulative total of all shoreline master programs and amendments thereto approved or adopted by rule by the department.

(78) "Structural (or hard) erosion control" means measures which include revetments, bulkheads and seawalls, vertical rock walls, and similar facilities, constructed parallel to and near the ordinary high water mark for the purpose of protecting adjacent uplands from the erosive action of waves or currents.

(79) "Submerged land" means land lying under waters of the state, land lying waterward of the ordinary high water mark.

(80) "Tidelands" means land on the shore of marine water bodies between the line of ordinary high tide and the line of extreme low tide.

(81) "Vegetative erosion control" means shoreline stabilization solely through the use of erosion resistant plantings, preferably of plant species native to the local area.

(82) "WAC" means Washington Administrative Code.

(83) "Water-dependent" means a use or portion of a use which can not exist in any other location and is dependent on the water by reason of the intrinsic nature of its operations. Examples of water-dependent uses may include ship cargo terminal loading areas, ferry and passenger terminals, barge loading facilities, ship building and dry docking, marinas, aquaculture, float plane facilities and sewer outfalls.

(84) "Water-enjoyment" means a recreational use, or other use facilitating public access to the shoreline as a primary characteristic of the use; or a use that provides for recreational use or aesthetic enjoyment of the shoreline for a substantial number of people as a general characteristic of the use and which through the 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 general public and the shoreline oriented space within the project must be devoted to the specific aspects of the use that fosters shoreline enjoyment. Primary water-enjoyment uses may include, but are not limited to, parks, piers and other improvements facilitating public access to shorelines of the state; and general water-enjoyment uses may include, but are not limited to, restaurants, museums, aquariums, scientific/ecological reserves, resorts and mixed-use commercial; *Provided*, that such uses conform to the above water-enjoyment specifications and the provisions of the master program.

(85) "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 artificial wetlands intentionally created form nonwetland sites, including, but not limited to, irrigation and drainage ditches, grasslined 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 the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from nonwetland areas to mitigate the conversion of wetlands.

(86) "Water-oriented" means any combination of water-dependent, water-related, and/or water-enjoyment uses and serves as an all-encompassing definition for priority uses under the SMA.

(87) "Water-related" means a use or portion of a use which is not intrinsically dependent on a waterfront location but whose economic viability is dependent upon a water-front location because:

(a) Of a functional requirement for a waterfront location such as the arrival or shipment of materials by water or the need for large quantities of water or,

(b) The use provides a necessary service supportive of the water-dependent commercial activities and the proximity of the use to its customers makes its services less expensive

and/or more convenient. Examples include manufacturers of ship parts large enough that transportation becomes a significant factor in the product's cost, professional services serving primarily water-dependent activities and storage of water-transported foods. Examples of water-related uses may include warehousing of goods transported by water, seafood processing plants, hydroelectric generating plants, gravel storage when transported by barge, oil refineries where transport is by tanker and log storage.

In addition, the definitions and concepts set forth in RCW 90.58.030, as amended, shall also apply as used herein.

Chapter 8 - Shoreline Environment Description and Maps

Description of Shoreline Jurisdiction Area

The jurisdiction of the Stanwood Shoreline Master Program extends a minimum of two hundred (200) feet landward from the ordinary high water mark of the Stillaguamish River as defined herein, including all associated wetlands.

Written Description of the Urban Environment Designation

The Stillaguamish River - Beginning at the west City limits and extending east to the south City limits that is west of 98th Drive N.W.

Written Description of the Rural Environment Designation

The Stillaguamish River - south and east of the sewer lagoon and north and west of the Stillaguamish River.

Shoreline Environment Designation Map

Map 1 shows the shoreline environment designations for those shorelines of the state contained within the City of Stanwood. The shoreline jurisdiction for the City of Stanwood contains two shoreline environment designations: Urban and Rural (see Chapter 4 summary, Map 1).