

# Lynnwood Shoreline Master Program

May 2011



CITY OF  
**Lynnwood**  
/ Community Development



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## **Section 1 – Introduction**

### **A. Shoreline Management Act**

Washington's Shoreline Management Act (SMA) was adopted by the State Legislature in 1971 and by the public in a 1972 referendum. The goal of the SMA is *"to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines."* The Act establishes broad policy giving preferences to uses that: protect the quality of water and the natural environment, depend on proximity to the shoreline, and preserve and enhance public access or increase public shoreline recreational opportunities. In Lynnwood, the SMA applies to the marine waters of the Puget Sound and the land beneath them, and the shorelands extending 200 feet inland from the ordinary high water mark (OHWM) of the Sound. The exact extent of shoreline jurisdiction will be determined at the time of permitting for a particular project. Areas undesignated in the Shoreline Master Program will have a conservancy designation.

The SMA contains the following major policy provisions:

- 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.
- Planning for and fostering all reasonable and appropriate uses of the shoreline.
- Protecting public rights of navigation, and public access to the shoreline and enhancing the public interest.

The SMA balances authority between local and state governments. Cities and counties are the primary regulators, but the state, through the Department of Ecology (*Ecology*), has authority to review local programs and decisions. Under the SMA, each city and county adopts a shoreline master program (SMP) based on state guidelines but tailored to the specific needs of the community. Local SMP's combine both plans and regulations. The plans are a comprehensive vision of how shoreline areas will be used and developed over time. Regulations are the standards shoreline projects and uses must meet.

Lynnwood has been required to have a SMP since 1972. For reasons unknown, none was ever prepared. Both the state and the City acknowledge that compliance with this state law is overdue. This document fulfills the City's obligation under the SMA. Revised regulations for preparing, updating, and administering SMP's were issued by the state in January 2004. The revised regulations guided preparation of this Shoreline Master Program.

### **B. Public and Agency Participation**

The Shoreline Management Act and Growth Management Act mandate that preparation of the Lynnwood Shoreline Master Program include a public participation process that ensures all interested parties a meaningful opportunity to participate. Actions were taken early in the planning process for the Lynnwood SMP to ensure such opportunities were provided for any and all interested parties. The Lynnwood Planning Commission served as the Citizen Involvement Committee and directed that wide notice about the planning process be given residents around the shoreline jurisdiction (the area within Lynnwood's shoreline jurisdiction has no residents).

All meetings where the SMP was on the agenda were given proper public notice. Residents within an area extending six hundred feet beyond the project area were given notice of the planning process and individual meetings. Notice was also given to local, state, and federal agencies likely to be interested; and to Indian tribes and other organizations.

In summary, citizen comment on the project has been limited. Only a few citizens from the area around the project called, wrote, or attended meetings. Most interest centered on ensuring operation of the Lynnwood wastewater treatment facility giving vigilant attention to odor and noise control. With the exception of *Ecology* and the City of Edmonds, interest from local and state agencies has also been minimal.

Project records and meeting notices are available for inspection at the offices of the Lynnwood Community Development Department.

### **C. Legal Framework and Applicability of SMP**

The Shoreline Master Program policies are more than guidelines. They are regulations that must be followed, and are as enforceable as regulations.

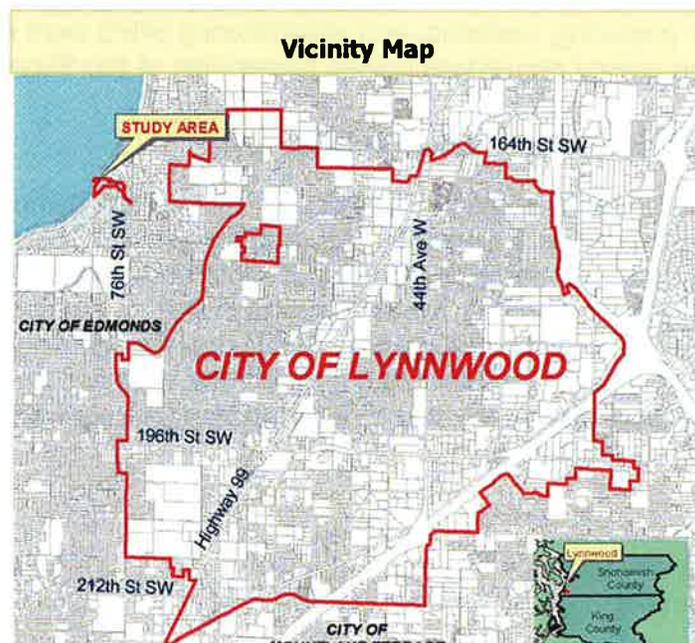
In most circumstances, the SMP applies only to the area of shoreline jurisdiction defined by the Shoreline Management Act (SMA). However, SMP policies and regulations may in some circumstances apply to areas outside SMA jurisdiction when the use of outside areas impacts areas within the shoreline jurisdiction in violation of SMP policies and regulations.

### **D. SMP Relationship to Other Regulations**

The Shoreline Master Program policies and regulations are in addition to any other Lynnwood Municipal Code (LMC) regulations applying to the subject area. If there is a conflict between the SMP and other regulations, the SMP shall be the controlling document. Appendix C (pg. C-8) gives a more complete description of the relationship between the various regulations.

### **E. Physical and Environmental Context**

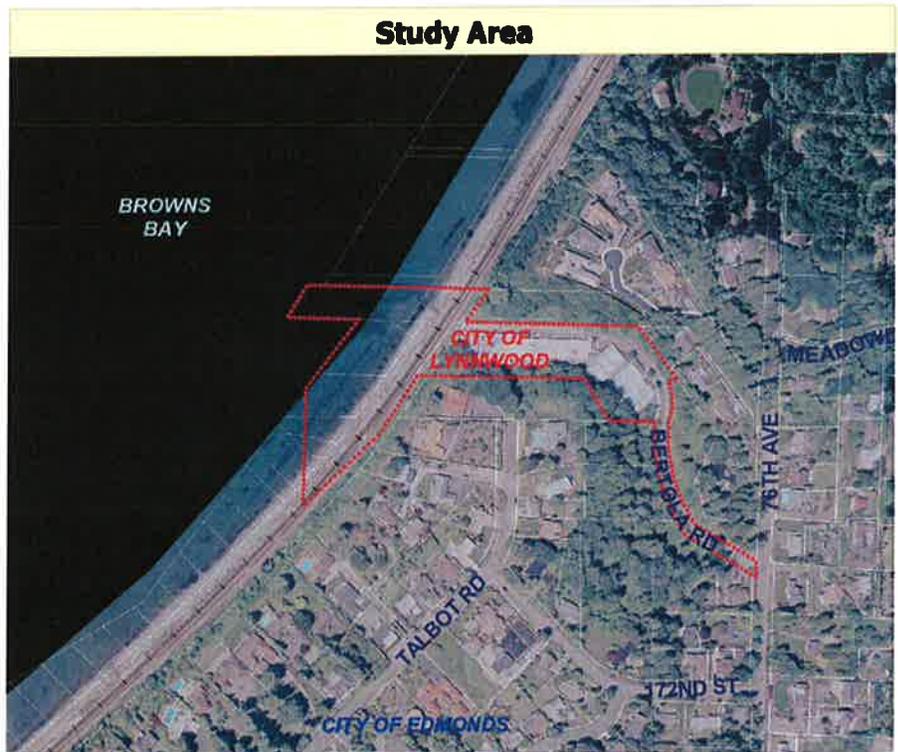
The City of Lynnwood's Puget Sound shoreline and adjacent shorelands are within a seven-acre enclave which is noncontiguous to and west of the main part of the City. This small part of Lynnwood is surrounded on the north, east, and south by the City of Edmonds. The principal uses within this part of Lynnwood



are the City's wastewater treatment facility, the Burlington North & Santa Fe (BNSF) Railway mainline, and Puget Sound shoreline and tidelands. All uses in the area pre-date passage of the SMA.

The Puget Sound shoreline in this location runs north-northeast to south-southwest, with the sound on the west and land to the east. The BNSF railway tracks parallel the shoreline in a narrow corridor between the toe of a 100-foot high bluff on the east, and Sound tidelands on the west. At high tide, there is little, if any, exposed land west of the railroad track bed. The City's wastewater treatment facilities are in a narrow, steep sided ravine extending east from the bluff. The wastewater treatment facility outfall runs under the track bed and 1,000 feet offshore into the Sound, and discharges at a depth of approximately 120 feet. A small stream runs through the City property. In its upper reaches, the stream is in an open streambed. Near the treatment facility, it enters underground piping which carries the stream water under and around the treatment facility then passes under the track bed in a large concrete pipe exiting the pipe west of the tracks onto the tidelands.

The BNSF railway completely bars access to the shoreline from the Lynnwood landside. No vehicular or pedestrian access is allowed across the railway tracks. The City has an access easement east of the tracks that permits limited vehicular access between the north and south sides of the treatment plant. This limited access easement does not allow access on or across the tracks. The City's wastewater treatment facilities establish a further barrier to access. The treatment facilities are fenced and gated; only authorized personnel may enter the property. Public access into the treatment plant site is necessarily limited due to the potentially hazardous nature of plant operations. These barriers make it unlikely that future pedestrian or vehicular access to the Lynnwood shoreline will or even could be provided via the landside in Lynnwood. The closest approved railroad crossing is approximately one mile north of the Lynnwood shoreline at Meadowdale Beach County Park.



The area of Lynnwood subject to the SMA may be one of the smallest in the state required to have a Shoreline Master Program. The 4.2-acre area under current shoreline jurisdiction has a limited number of existing uses and property owners. Few, if any, land use changes

are anticipated and pressure to bring about change is minimal. The character of the shoreline is uniform and opportunities for either degradation or enhancement limited. Under these circumstances, it would seem that a Shoreline Master Program fully complying with the SMA should be brief, simple and straightforward. However, the complexity of the SMA and its implementing regulations dictate the content, length, and complexity of this plan. An abbreviated process or program is not provided for under the SMA.

#### **F. How to Use this Document**

Users of this Shoreline Master Program are encouraged to start with the Goals listed in Section 2. The Goals describe the end state, or continuing condition, the SMP is intended to achieve. The next stop, in logical progression, should be Section 3 where the Environment Designations are described. Then, breaking with linear progression, it may help most to turn to Section 5 where permissible shoreline uses are listed. With the foregoing as background, the reader is then prepared to tackle the detail of the policies and regulations.

#### **G. Regulations Not Applicable**

The area of shoreline jurisdiction in Lynnwood is geographically small and the range of natural features and human uses limited. Therefore, some parts of the WAC 173-26-221 thru 241 are not applicable to the Lynnwood SMP. In general, regulations for agriculture, forestry, mining, breakwaters, commercial and residential development and regulations in WAC 173-26-221 for critical freshwater habitat, aquifer recharge areas, do not apply as these conditions do not exist in the Lynnwood shoreline jurisdiction.

#### **H. Annexations**

This plan was partly written recognizing that the City of Lynnwood could at some point annex areas lying within the shoreline jurisdiction. Some uses listed and regulated herein are only likely to become applicable in the event of annexation, as the entirety of Lynnwood's existing shoreline area, except the tidelands, is occupied by the wastewater treatment plant and railroad, and the probability of these uses being redeveloped is remote.

There has been some discussion of a "cross-annexation" between Lynnwood and the surrounding City of Edmonds with Edmonds annexing the tidelands and railroad property south of the wastewater treatment plant, and Lynnwood annexing some upland (out of the shoreline jurisdiction) properties it owns adjacent to the wastewater plant. As of the adoption of this Master Program these plans have not gone beyond the speculation stage.

## **Section 2 – Goals**

### **A. Master Goal**

The Puget Sound shoreline is among the most valuable, scarce, and fragile of our natural resources. It is the intent of this Shoreline Master Program to manage the shoreline giving preference to water-dependent and water-related uses, and encourage development and other activities to co-exist in harmony with natural conditions. Uses that result in long-term over short-term benefits are preferred, as are uses which promote sustainable development.

### **B. Shoreline Use Goals**

1. Reserve shoreline and water areas particularly suited for specific and appropriate uses - especially water-oriented and water-dependent uses, for such uses existing and potential.
2. Establish and implement policies and regulations for shoreline use consistent with the Shoreline Management Act of 1971. These policies and regulations should ensure the overall land use pattern in the shoreline area is compatible with existing shoreline environment designations and will be sensitive to and not degrade habitat and ecological systems and other shoreline resources.
3. Ensure proposed shoreline uses do not minimize the rights of others or infringe on rights of private ownership.
4. Encourage restoration of shoreline areas that have been degraded or diminished in ecological value and functions by past activities or catastrophic events.
5. Ensure that planning, zoning, and other regulatory and non-regulatory programs governing lands adjacent to shoreline jurisdictions are consistent with SMA policies and regulations and the provisions of this SMP.

### **C. Economic Development Goal**

Allow continuation and enhancement of existing uses consistent with achieving other goals for preservation and conservation of resources.

### **D. Public Access Goals**

**Note:** While the City of Lynnwood supports the goals of the Shoreline Management Act to "increase public access to publicly owned areas of the shoreline" (RCW 90.58.020 (5)), a reading of Section 1E (above) reveals that it is neither legal, safe, nor practical to encourage general physical access to the shoreline area from the upland area within the City of Lynnwood as it now exists due to topography and the uses along the shoreline.

1. Provide opportunities for the public to view and enjoy the amenities of the shoreline area consistent with:
  - a) Private property rights including but not limited to the legal right of the BNSF to prohibit public access across their right-of-way;
  - b) Public health and safety concerns including but not limited to the necessity for the City to prevent unescorted access within the wastewater treatment plant, grounds, and of the BNSF to prevent crossing of or access along the railroad tracks;
  - c) Over-burdening fragile natural resources;
  - d) Prevention of other public nuisances.
2. Maintain public shoreline and tidelands in public ownership for continued public use.
3. Enhance and preserve public views from shoreline upland areas. Enhancement of views should not be construed to mean excessive removal of vegetation which partially impairs views.
4. Provide opportunities for escorted (guided tour) access to the wastewater treatment plant and adjacent shoreline area as may be practical within staffing limitations.

#### **E. Circulation Goals**

1. Provide for safe and efficient movement of people and goods within the shoreline area while recognizing and enhancing the unique, fragile, and scenic character of the shoreline area with minimum disruption to the shoreline environment and minimum conflict between different uses.
2. Provide for emergency services access to the shoreline area.

#### **F. Recreation Goal**

Provide public recreational opportunities in the shoreline area consistent with protection of shoreline resources, and the limitations of safe access. However, it is not at this time a goal of this plan to encourage or plan for recreational use within or adjacent to the wastewater treatment plant or BNSF railroad right-of-way.

#### **G. Conservation Goal**

Protect and enhance unique and fragile areas of flora and fauna and scenic vistas to help assure continued availability of these resources for future generations.

## **H. Historic and Cultural Values Goal**

Identify, protect, preserve, and restore important archaeological, historical, art and cultural sites within the shoreline jurisdiction area for educational and scientific use and enjoyment by the general public.

## **I. Restoration of Impaired Ecological Functions Goals**

1. Assure no net loss of shoreline ecological functions.
2. Restore impaired ecological functions within reasonable limits of both biological science and cost effectiveness.
3. Prepare, adopt, and implement a restoration plan which prioritizes and targets ecological functions most in need of restoration. (See Appendix E – Restoration Plan)



## **Section 3 – Environment Designations**

### **A. Environment Designation Classification Requirements**

Shoreline Master Programs are required by state regulations to classify shoreline areas into specific environment designations. The classification must be based on the existing use pattern, the biological and physical character of the shoreline, the classification criteria provided by state regulations, and the goals of the Lynnwood Comprehensive Plan. Taking the foregoing into account, the City of Lynnwood has chosen to use two of the six state recommended standard environment designations for the jurisdictional shoreline within the city limits. These two designations are

- 1) Aquatic and
- 2) High-Intensity.

The extent of each designation is shown on map C4b in Appendix B, Inventory Map Portfolio. The exact location of environment designation boundaries will be determined at the time of permitting for a particular project.

### **B. Aquatic Environment**

The purpose of the Aquatic environment is to protect, restore, and manage the unique characteristics and resources of the areas waterward of the ordinary high-water mark. This is the default environment designation for areas waterward of the OHWM. This environment designation makes the most sense for Lynnwood's submerged and intertidal lands, and is so used for those lands. The Aquatic designation applies to all Lynnwood's jurisdiction west of the OHWM.

#### **Management Policies:**

1. Structures, which are not water-dependent, and uses which will substantially degrade the existing character of the area should be prohibited.
2. Several industries using the same tidelands should be given preference over single-industry use.
3. In appropriate areas, fishing and water recreation should be protected from competing uses.
4. Uses and activities in navigable waters or their beds should be located and designed to minimize interference with safe navigation, and allow unhindered passage of fish and animals, particularly those with life cycles dependent on such migration.
5. Filling operations should minimize possible adverse environmental impacts.
6. Development of underwater pipelines and cables on tidelands should be discouraged except where adverse environmental impacts can be shown to be less than the impact of upland alternatives, or when no reasonable alternative exists. When

permitted, such facilities should include provisions to prevent substantial or irrevocable environmental damage.

7. The size of new over-water structures should be limited to the minimum necessary to support the intended use.
8. Uses adversely impacting the ecological functions of critical salt and fresh water habitat should not be allowed except where necessary to the objectives of RCW 90.58.020, and then only when their impacts are mitigated under the sequence described in WAC 173-26-201 (2)(e) to assure no net loss of ecological functions.
9. Shoreline uses and modifications should be designed and managed to prevent degradation of water quality and alteration of natural hydrographic conditions.

### **C. High Intensity Environment**

The purpose of the High-Intensity environment is to provide for high-intensity water-oriented commercial, transportation, and industrial uses while protecting existing ecological functions and restoring ecological functions in previously degraded areas. This environment designation is to be applied to shoreline areas currently supporting high-intensity uses, or suitable and planned for high-intensity water-oriented uses. This environment designation applies to that part of Lynnwood located east and within 200 ft. of the Puget Sound OHWM.

#### **Management Policies:**

1. High-intensity use tends to preclude other shoreline uses. Emphasis should be given to directing new development into already developed areas consistent with the SMP.
2. Full utilization of existing high-intensity areas should be achieved before additional areas are designated High-Intensity.
3. Reasonable, long-range projections of regional economic need should guide the amount of shoreline designated High-Intensity.
4. Priority should be given to water-dependent, water-related, and water-enjoyment uses over other uses. Uses, not befitting from a water location, should be discouraged or prohibited.
5. Aesthetic considerations should be actively promoted by means such as appropriate development siting, sign regulations, screening and architectural standards, flexible lot design, planned unit development, and maintaining natural vegetation buffers.
6. To maximize use of available shoreline resources and accommodate future water-dependent uses, the redevelopment and renewal of substandard or degraded high-intensity shoreline areas should be encouraged.
7. Development within the High-Intensity environment should be compatible with uses and activities in adjacent, including aquatic, environments.

## **Section 4 – General Policies**

The following general policies and regulations apply to shoreline uses and modifications irrespective of environment designation. Policies are the bridge between goals and regulations, translating the general into the specific. Shoreline policies are legally enforceable. Regulations are more specific, enforceable controls and standards for shoreline development.

1. All new shoreline uses and shoreline modifications, including those not needing a Shoreline Substantial Development Permit (SDP), must conform to applicable Section 2 Goal provisions, Section 3 Environment Designation provisions (including the shoreline environment maps), Section 5 Specific Shoreline Use provisions and Section 6 Shoreline Modification provisions as well as the provisions of this section.
2. Shoreline modifications must support an allowable shoreline use conforming to the SMP. Except as otherwise noted, all shoreline modifications not associated with a legally existing or approved shoreline use are prohibited.
3. Shoreline uses, modifications, and conditions listed as “prohibited” shall not be eligible for consideration of Shoreline Variances or Shoreline Conditional Use Permits.
4. The policies listed in the SMP shall provide broad guidance and direction and shall be used by the Director in interpreting the “regulations.”
5. Where provisions of the SMP conflict, the more restrictive provisions shall apply unless specifically stated otherwise.

### **A. Archaeological and Historic Resources**

Where archaeological or historic resources are recorded with the State Historic Preservation Office and/or the City of Lynnwood, or where they have been uncovered, the following policies and regulations apply. (Note: there are no known archeological or historical sites within Lynnwood's shoreline jurisdiction.)

#### **Policies:**

1. Archaeological and historic resources are limited and irreplaceable by nature, and valuable links to our past, and should be considered whenever a development is proposed along State shorelines.
2. Public or private uses and activities should be prevented from destroying or altering any site having historic, prehistoric, cultural, scientific, or educational purpose or value as identified by appropriate authorities.

#### **Regulations - General:**

1. All shoreline permits shall contain provisions requiring developers to immediately stop work and notify the City if any phenomena of possible archaeological interest is

uncovered during excavation. In such cases, the developer shall provide for site inspection and evaluation by a professional archaeologist to ensure all valuable archaeological data is properly salvaged. The developer shall receive permission from the State Office of Archaeology and Historic Preservation prior to further site disturbance, and affected tribes must be notified (RCW 27.53.0 or its successor).

2. Permits issued in areas with known archaeological artifacts and data shall include a requirement that the developer provide for site inspection and evaluation by an archaeologist. The permit shall require approval by the City before work begins, following inspection. Significant archaeological data or artifacts shall be recovered before work begins. This must be coordinated with affected tribes.
3. Significant archaeological and historic resources shall be permanently preserved for scientific study, education, and public observation. If the City determines a site has significant archaeological, natural scientific or historical value, it shall not issue permits for substantial development posing a threat to the resources of the site. The City may require development be postponed in such areas to allow investigation, public acquisition and/or retrieval and preservation of significant artifacts, and/or development of a mitigation plan.
4. In the event unforeseen factors constituting an emergency, as defined in RCW 90.58.030 or its successor, necessitate rapid action to retrieve or preserve artifacts or data identified above, the project may be exempted from shoreline permit requirements. The City shall notify *Ecology*, the State Attorney General's Office and the State Historic Preservation Office of such a waiver in a timely manner.
5. Archaeological sites, including middens, located both in and outside the shoreline jurisdiction are subject to RCW 27.44 (Indian Graves and Records) or its successor and RCW 27.53 (Archaeological Sites and Records) or its successor and shall comply with WAC 25-48 or its successor as well as the provisions of the SMP.
6. Archaeological excavation may be permitted subject to the provisions of the SMP.
7. Identified historical or archaeological resources shall be considered in site planning for parks, open space and public access with access to such areas designed and managed to protect the resources and surrounding environment.
8. Appropriate signs interpreting historical and archaeological features shall be provided
9. Areas of known or suspected archaeological middens shall not be disturbed and shall be identified and fenced and during construction projects on the site.

## **B. Clearing and Grading**

The purpose of this section is to ensure shoreline uses and activities are designed and conducted in a manner minimizing damage to the ecology and environment of the shoreline area. All shoreline uses and activities shall conform to the clearing and grading provisions

herein, including developments not needing a shoreline permit. (See subsection I - Water Quality for related provisions.)

**Policies:**

1. Clearing and grading activities should be designed and conducted with the proper protections and in conformance with all local, state and Federal regulations.
2. Clearing and grading should be limited to the minimum necessary to accommodate permitted shoreline development.
3. Negative environmental impacts associated with clearing and grading should be avoided wherever possible through proper site planning, construction practices and timing, bank stabilization, bioengineering and/or use of erosion and drainage control methods, as well as long-term maintenance.
4. Following project completion, disturbed areas should be promptly replanted.
5. Clearing and grading activities should be designed so as to maintain native vegetation areas. Appropriate critical area buffers, as described in LMC Chapter 17.10 or as described below, shall be maintained in native vegetation.
6. For extensive clearing and grading proposals, a clearing and grading plan addressing native species removal, erosion and sedimentation control, and protection of sensitive area native vegetation zones shall be required.

**Regulations – General:**

1. Clearing and grading shall be permitted landward of the native vegetation zone (see subsection E- Native Vegetation Zone) for a permitted shoreline use, provided that upon completion of construction, remaining cleared areas shall be replanted within the first planting season. Replanted areas shall be fully re-established within three (3) years of completing construction and shall be properly maintained.
2. Except as otherwise provided in this SMP, existing native vegetation between the OHWM and the top of any bank ten (10) feet or higher waterward of the development shall be retained.
3. All vegetation within the native vegetation zone or other buffer likely to be disturbed by clearing and grading shall be protected by temporary fencing or other marking the City determines will adequately protect the vegetation. This includes root zones of trees to remain. The fencing/marketing shall be installed, and approved by the City before clearing and grading begins, and maintained until construction is complete.
4. Land alteration (clearing, grading, filling) shall be limited to the minimum necessary for development. Surface drainage systems or earth modifications involving more than five hundred (500) cubic yards of material shall be designed by a licensed engineer to prevent maintenance problems or adverse impacts to shoreline features.

## **C. Environmental Impacts**

Minimizing the impacts of shoreline uses and activities on the environment is a key purpose of the SMA. All shoreline uses and activities, including developments not needing a permit, must conform to these provisions.

### **Policy:**

Adverse environmental impacts from shoreline uses and activities should be minimized during all phases of development (e.g., design, construction, and management).

### **Regulations – General:**

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 regulatory agencies.
2. Solid waste, liquid waste, and untreated effluent (i.e., discharge from a source containing pollutants) shall not be allowed to enter any surface waters or be discharged onto land. If there is evidence of discharge, the activity shall be suspended until the deficiency has been satisfactorily corrected.
3. The release of oil, chemicals, or other hazardous material onto or into the water is prohibited. Equipment for transporting, storing, handling, or applying such materials shall be maintained in a safe and leak-proof condition. If there is evidence of leakage, the use of such equipment shall be suspended until the deficiency has been satisfactorily corrected.
4. Shoreline uses and activities shall use effective measures to minimize increases in surface water 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, settling ponds, grassy swales, interceptor drains, landscaped buffers, and installation and maintenance of oil/water separators.
5. Shoreline uses and activities shall utilize effective erosion control methods during project construction and operation.
6. Shoreline uses and activities shall be located, designed, constructed, and managed to minimize adverse impacts to fish and wildlife resources including spawning, nesting, rearing and habitat areas, and migratory routes.
7. 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.

8. The location, design, construction, and management of shoreline uses and activities shall minimize adverse impacts to surrounding land and water uses.
9. The location, design, construction and management of shoreline uses and activities shall avoid hazards to public health and safety.
10. All shoreline uses and activities shall be located and designed to minimize the need for shoreline stabilization measures and flood protection. (See Section 6, Shoreline Modification Policies and Regulations.)
11. Herbicides and pesticides shall not be allowed to directly enter water bodies or wetlands unless approved for such use by the appropriate agencies (Washington Dept. of Agriculture or Dept. of Ecology, U.S. Dept. of Agriculture or U.S. Environmental Protection Agency).
12. See Environmentally Critical Areas in the next subsection for additional provisions which may apply.

#### **D. Native Vegetation Zone**

Native vegetation zones are required vegetation buffers encompassing areas landward from the OHWM. Their purpose is to protect and enhance the shoreline's natural character, water quality, native plant communities, and wildlife habitat. Native vegetation zone provisions apply to all new shoreline development, uses, and activities, including those not needing a shoreline development permit and, where practical, to existing development.

Existing development, vegetation patterns, site conditions, parcel configurations, adjacent land uses and other factors shall be considered when applying native vegetation zone requirements. Existing developed properties such as the Wastewater Treatment Plant with no direct shoreline access (separated from the water by the railroad right-of-way), existing buildings in close proximity to the waterward property line, and limited land area for development, may have limited opportunity to implement native vegetation zone mitigation in the event of expansion. In such instances, a native vegetation zone is not required, but mitigation for removal of significant trees is still appropriate.

#### **Policies:**

1. Preservation of native plant species is key to maintaining the ecology of the shoreline as well as preserving its natural character.
2. Native plant communities within the shoreline jurisdiction should be protected, maintained, and enhanced.
3. Degraded shorelines should be restored to provide native habitats and enhance water quality.
4. Development should preserve existing environmental features to minimize disturbance of natural systems.

5. A native vegetation zone, landward of the OHWM, should be established for each shoreline use and shoreline environment, consistent with the development pattern and ecology of the shoreline.
6. The City should implement a public education program emphasizing the importance of maintaining native vegetation in the shoreline area.
7. Requirements for native vegetation zones, including their width, shall take into consideration factors such as, but not limited to, existing development and vegetation patterns, existing site conditions, characteristics of the land use and adjacent land uses. In cases where a native vegetation zone is not required and existing significant trees are removed, mitigation for the removed trees is appropriate.

**Regulations- General:**

A vegetation buffer, called a native vegetation zone, shall be maintained landward of the OHWM. For environmentally critical areas other than wetlands, the width of the native vegetation zone shall be a minimum of 50 feet except as altered by the depth averaging provisions of paragraph 9 below. However, in no instance shall the native vegetation zone be less than that required by the Lynnwood Critical Areas Ordinance (LMC Ch. 17.10 or its successors). No wetlands are present in Lynnwood's shoreline area.

1. Existing native vegetation within this zone shall be maintained unless specifically allowed to be altered or removed under the provisions of this section.
2. New plantings in this zone shall be native plant species, similar in diversity, type, density, wildlife habitat value, water quality and slope stabilizing qualities to the original vegetation.
3. Removal of nonnative plants and plants on the State noxious weed list shall be allowed within the native vegetation zone.
4. Within the native vegetation zone, normal nondestructive pruning and limbing of native vegetation for maintenance and view shall be allowed if it does not threaten the health of the vegetation. Individual tree cutting to remove hazards may be allowed by the Director, subject to a report by an arborist or other approved expert.
5. No clearing, grading, or construction may be undertaken in the native vegetation zone unless specifically allowed by this section.
6. A path to the shoreline not more than four (4) feet wide, constructed by hand and designed to minimize environmental impacts, shall be allowed. Paths may be wider when required for handicapped access.
7. Accessory utility lines determined by the Director to be necessary or to reduce an impact may be allowed.

8. To allow flexibility when required by site limitations, the depth of the native vegetation zone (measured from the eastern boundary of the BNSF right-of-way) may be altered by averaging the depth, provided that:
  - a) The total area of the native vegetation zone shall not be less than otherwise required.
  - b) All portions of the native vegetation zone shall be contiguous.
  - c) The zone depth shall not be reduced more than twenty-five (25) percent, and shall be minimum thirty-eight (38) feet (from the OHWM) at any point.
  - d) At least seventy-five percent (75%) of the resulting zone shall be located within the area otherwise required.
  - e) Any area altered shall be compensated for by a substitute area. Areas used as substitutes must contain vegetation of comparable or better quality than the area deleted.
9. Native vegetation zones and related restrictions required for a preliminary plat shall be shown on the face of the final plat, and for all other land shall be included in a covenant, easement or similar document. The document(s) shall be recorded with the County Auditor within one month of imposing the requirement.
10. In cases where a native vegetation zone is not required or its width is allowed to be reduced (due to considerations in Policy 7 above), and existing significant trees are to be removed, mitigation in accordance with LMC 17.15 (Tree Regulations) or its successor will be required for the tree removal. Preference for mitigation shall be:
  - a) Replacement trees on the subject property and within the area subject to shoreline management jurisdiction (i.e. 200 feet landward of the OHWM);
  - b) If "a" is not practical, replacement trees shall be located on the subject property at a location clearly visible from the shoreline.

### **E. Environmentally Critical and Hazard Areas**

Environmentally critical areas and geologic and flood hazard areas in Lynnwood's shoreline jurisdiction are primarily regulated through LMC, Chapter 17.10, "Environmentally Critical Areas" and/or LMC Chapter 16.46 "Flood Hazard Area Regulations". Sections 17.10.090, 091, 092 & 093 of the Critical Areas Ordinance (Ord. No. 2598, Dec. 2005) are hereby incorporated into the SMP (see section – E items 9-12). The Flood Hazard Area Regulations (Ord. No. 2274, Nov. 1999) are hereby incorporated into this SMP (see Appendix F). The provisions in the SMP supplement those regulations and apply to all uses and activities, including those not needing a shoreline substantial development permit. Any conflicts between the ordinances and the SMP shall be resolved in favor of the regulation that is most protective of the environment

**Policies:**

1. Unique, rare, and fragile shoreline resources including, but not limited to, aquifer recharge areas; fish and wildlife habitat; fish breeding, rearing or feeding areas; frequently flooded areas; geologically hazardous areas; wetlands and streams; tidal lagoons; mud flats; and salt marshes and aquatic vegetation should be preserved.
2. Shoreline uses and activities should be located, designed, constructed, and managed to protect and/or not adversely affect valuable, fragile or unique natural features.
3. Development should be located minimum distances specified in LMC, Ch. 17.10, from shorelines identified as unstable and/or erosion prone to prevent hazardous conditions and property damage as well as to protect environmental features.
4. Development in flood hazard areas should be restricted in accordance with LMC Ch. 16.46 to prevent hazardous conditions and property damage as well as to protect the environment.
5. Some areas, because of unique and/or fragile geological or biological characteristics, should be protected from public access (e.g., wetlands, shoregrass, kelp beds, etc.).
6. In areas adjacent to critical environmental features and their native vegetation zones, use intensities should be regulated to protect the critical features.

**Regulations - General:**

1. Over-water and near-shore development in marine and estuarine waters shall inventory the development site and adjacent areas to assess the presence of critical saltwater habitats and functions. The method and extent of the inventory shall be consistent with accepted research methodology.
2. Native vegetation zones shall be equal to the buffers established in LMC, Ch. 17.10, as amended, except that native vegetation zones for Puget Sound shall be established in the SMP. There are no wetlands in Lynnwood's shoreline jurisdiction.
3. Regulation 2 above, notwithstanding, native vegetation zones for areas of Puget Sound exhibiting unique, rare and/or fragile resources (including, but not limited to tidal lagoons, mud flats, and salt marshes) may be increased under LMC Ch. 17.10.
4. When critical areas and/or critical area native vegetation zones are disturbed, revegetation with native vegetation shall be required. (See subsection B, Clearing and Grading (above) for regulations protecting critical areas during construction.)
5. Fish and wildlife habitat enhancement or restoration shall be allowed as approved by appropriate resource agencies.

6. If Development results in a shoreline impact, the following mitigation measures shall be applied in the sequence of steps listed in order of priority, with (a) of this subsection being top priority.
  - 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;
  - e) Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and
  - f) Monitoring the impact and the compensation projects and taking appropriate corrective measures.
  - g) In determining appropriate mitigation measures applicable to shoreline development, lower priority measures shall be applied only where higher priority measures are determined to be infeasible or inapplicable.
7. Where critical area replacement is proposed, an applicant shall permanently protect the replacement area through legal instruments such as critical area tracts, conservation easements, or comparable use restrictions.
8. The following are classified as geologically hazardous areas:
  - a) Naturally occurring slopes of 40 percent or more;
  - b) Other areas which the City has reason to believe are geologically unstable due to factors such as landslide, seismic or erosion hazards.
9. Development proposals in areas which are designated as or which the City has reason to believe are geologically unstable or hazardous shall be set back a minimum of 25 feet from top, toe and sides of such areas (as applicable). The setback requirement may be increased by the City when necessary to protect public health, safety and welfare, based on information contained in geotechnical reports.
10. Unless associated with a stream or wetland, the City, with a shoreline variance (see subsection 7. J Shoreline Variances and Conditional Use Permits), may allow alteration of an area identified as a geologically hazardous area, or its setback. In order to perform such alteration, the applicant shall submit to the City a geotechnical

report containing all elements described in LMC 17.10.094 and in addition to meeting the requirements of Section 7 - Administrative Regulations, must demonstrate:

- a) The proposed development will not create a hazard to the subject property, surrounding properties, or rights-of-way, nor cause severe erosion or deposit excessive sedimentation on or in off-site properties or bodies of water; and,
  - b) The proposed method of construction will reduce erosion, landslide and seismic hazard potential, and will improve, or not adversely affect the stability of slopes; and,
  - c) The proposal uses construction techniques which minimize the disruption of existing topography and natural vegetation; and,
  - d) The proposal is consistent with the purposes and provisions of LMC Ch. 17.10
11. Alteration allowed by this subsection shall be subject to the following requirements:
- a) All proposed developments be designed and located so as to require the minimum amount of modification to areas of potential geologic instability; and,
  - b) All impacts identified in the geotechnical report be adequately mitigated; and,
  - c) As a condition of any approval of development containing a geologically hazardous area or its required setbacks, the City may require that:
    - (i) The applicant's geotechnical consultant be present on the site during clearing, grading, filling and construction activities which may affect geological hazard or unstable areas, and provide the City with certification that the construction is in compliance with his/her recommendations and has met with his/her approval; and.
    - (ii) Trees and groundcover be retained and additional vegetation or other appropriate soil stabilizing structures and materials be provided.
12. All development in areas of special flood hazard (see definition in Appendix F) shall be subject to the requirements of LMC Ch. 16.46 "Flood Hazard Area Regulations". In the event of conflicts between the requirements of LMC Ch. 16.46 and this SMP the regulation that is most protective of ecological functions shall be applied.

#### **F. Public Access –Visual and Physical**

This section recognizes that there are two types of public "access" to the shoreline. One type is *visual* access – that is, the public's ability to see the shoreline and water. The second type is *physical* access – that is, the public's ability to reach and touch the water's edge.

The following provisions are not intended to require private property owners including the BNSF to increase visual or physical public access to the shoreline. Nor are they intended to encourage or require public access to or through areas or uses which is contrary to public health or safety including the BNSF right-of-way and the wastewater treatment plant grounds.

The fundamental principle underlying this section's provisions is that future development should not result in net loss of currently existing visual and physical public access to the shoreline. The following provisions are intended to increase public visual and physical access to the shoreline, through improvement of existing public property and acquisition of additional public property. It should be recognized that some of the following policies and regulations may only be applicable in the rather unlikely event that the existing Lynnwood shoreline jurisdiction is no longer used by the wastewater treatment plant and/or railroad and is redeveloped or in the event the city annexes other shoreline areas, although this too seems unlikely within the lifetime of this SMP (see Section 1. H above).

"Scenic vista" protection is another aspect of public access and an important shoreline management objective. Consideration must be given to protecting the shoreline's visual quality and maintaining view corridors to and from waterways and adjacent features.

**Policies:**

1. The City should establish a comprehensive public access plan to provide increased public visual and physical access. The plan should consider the following methods:
  - a) Acquisition of land and/or easements.
  - b) Incentives for providing visual and/or physical access.
  - c) Requirements for public access when new development: is located in the High-Intensity Environment, is a nonresidential use, or includes multiple-family uses of five or more building lots.
2. In single-family residential areas emphasis should be placed on providing public access to the water via unopened road rights-of-way ("road ends"), with a goal of providing comparable access in all neighborhoods.
3. Acquisition of small, unbuildable lots should be considered as a way to increase opportunities for the public to enjoy the shoreline.
4. Intense public use, as opposed to neighborhood use, of the shoreline should be limited to parks and the High-Intensity Environment.
5. Visual and physical public access should be considered during the review of any new private or public developments which diminish existing public access or increase demand for public access. In such cases, public access should be required unless health, safety, or environmental protection needs cannot be met.

6. New shoreline development, uses, and activities should not unreasonably impair or detract from the public's physical and visual access to the water.
7. Public access should not adversely affect the shoreline environment.
8. City-owned shoreline should be reserved for water-dependent or public recreational use, or maintained as open space.
9. Public visual and physical access should be maintained or enhanced on shoreline street-ends, public utility corridors and easements (where possible), and public rights-of-way.
10. Public access should be designed to provide for public safety and minimize potential impacts to private property and individual privacy.
11. Public and private access spaces should be clearly marked and/or separated to avoid unnecessary user conflicts. Such marking/separation should be done in a way that does not unreasonably obscure views.
12. Development should minimize visual impacts to the natural shoreline landscape.
13. The Lynnwood Public Works Department has a program of occasional public tours of the wastewater treatment plant and grounds. The tour program should continue within the availability of staff to escort the tours. The tour program should develop handouts and speaking points addressing the shoreline environment and ecology and how it has been affected by and in turn affects human activity.

**Regulations General:**

1. Development projects on public land or by public entities shall include provisions for public visual and physical access to the shoreline unless the applicant demonstrates one or more of the following:
  - a) Unavoidable health or safety hazards exist which cannot be prevented by any practical means.
  - b) Inherent security requirements of the use cannot be satisfied through alternative design features or other solutions.
  - c) The cost of providing the access, easement, or alternative public access on or off the development site is unreasonably disproportionate to the total long-term cost of the development. In such instances project proponent shall contribute funds to the City public access, Park or shoreline restoration fund.
  - d) Public access will result in unacceptable environmental harm which cannot be adequately mitigated.

- e) Security and/or health and safety issues make public access impossible or impractical.
2. 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 reasonable alternatives have been exhausted, including, but not limited to:
    - a) Regulating access by means such as maintaining a gate and/or limiting hours of use.
    - b) Designing separation of uses and activities (e.g., fences, terraces, hedges, or other landscaping).
    - c) Provision(s) for access on sites geographically separate from the proposal such as a street end.
  3. Development, uses, and activities shall be designed and operated to avoid blocking, reducing, or adversely interfering with existing public physical and visual access to the water and shorelines.
  4. Public visual and physical access via shoreline street ends, public utilities, and rights-of-way shall not be diminished. (RCW 35.79.035 or its successor and RCW 36.87.130 or its successor).
  5. Submerged public rights-of-way shall be preserved for public access.
  6. Permitting processes shall consider the balance between visual access and retention of native vegetation.
  7. Development on the water shall be constructed of non-reflective materials compatible in color and texture with the surrounding area.
  8. Public access sites shall be connected directly to the nearest public street.
  9. Required public access shall be fully developed and available for public use at the time of occupancy of the use or activity in accordance with permit conditions.
  10. Public access easements and permit conditions shall be recorded on the title and/or on the face of the plat as a condition running with the authorized land use. Recording with the County Auditor's office shall occur at the time of permit approval. (RCW 58.17.110 or its successor.)
  11. The standard State-approved logo or other approved sign(s) indicating public right of access and hours of access shall be installed, and maintained by the City in conspicuous locations at public access sites. In accordance with regulation 2a above, signs may control or restrict public access as a condition of permit approval.

12. Future actions by the applicant, successors in interest, or other parties shall not diminish the usefulness or value of the public access provided.
13. When properties are subdivided, owners of newly created lots not having water frontage shall be provided common water access, provided this will not cause unacceptable environmental harm which cannot be adequately mitigated.

**G. Shorelines of Statewide Significance**

The 1971 Shoreline Management Act designated certain shoreline areas as shorelines of statewide significance. Because these shorelines are resources which benefit all people in the state, preference is given to uses which favor public and long-range goals. Within Lynnwood's jurisdiction all areas lying seaward of the extreme low tide line are shorelines of statewide significance. [RCW 90.58.030 (2)(e)(iii) or its successor].



**Policies (In order of preference):**

1. Recognize and protect the statewide interest over local interest.
  - a) Solicit comments and opinions from groups and individuals representing statewide interests by circulating the SMP, and any amendments thereto affecting shorelines of statewide significance, to State agencies, local officials, adjacent jurisdictions, citizen's advisory committees, and statewide interest groups.
  - b) Recognize and take into account State policies, programs, and recommendations in developing and administering use regulations, and 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:

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

3. Result in long-term over short-term benefit.
  - a) Evaluate the short-term economic gain or convenience for development relative to long-term and potentially costly impairments to the natural shoreline.
  - b) In general, preserve resources and values of shorelines of statewide significance for future generations and restrict or prohibit development that would irretrievably damage shoreline resources.
  - c) Actively promote aesthetic considerations when contemplating development, or redevelopment of existing facilities, or enhancement of shoreline areas.
4. Protect the resources and ecology of the shoreline.
  - a) Minimize development activity interfering with natural functions of the shoreline ecosystem including, but not limited to, stability, drainage, aesthetic values, and water quality.
  - b) Shoreline development should be located, designed, constructed, and managed to avoid disturbance of, and minimize adverse impacts on, fish and wildlife resources including spawning, nesting, rearing, and habitat areas and migration routes.
  - c) Restrict or prohibit public access to areas which cannot be maintained in a natural condition with 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.
5. Increase public access to publicly owned shoreline areas.
  - a) Give priority to developing paths and trails to shoreline areas, linear access along the shorelines, and upland parking.
  - b) Locate development landward of the ordinary high water mark.
  - c) Limit public access when environmental or habitat values warrant such.
6. Increase shoreline public recreational opportunities.

Plan for and encourage development of shoreline recreational facilities.

## **I. Water Quality**

Maintaining high water quality standards and restoring degraded systems is mandated in the Shoreline Management Act (RCW 90.58.020 or its successor). Water quality is affected in numerous ways by human activity. The increase in non-porous surfaces that accompanies development increases surface water runoff causing scouring and stream bank erosion. Erosion increases suspended solid levels and carries heavy metals, wastes, and excess nutrients into the water, causing nutrient enrichment and depressed dissolved oxygen levels. This degradation of water quality adversely impacts wildlife habitat and public health. The purpose of these provisions is to minimize water quality impacts of shoreline uses and activities. These provisions apply to all shoreline development, including development not needing shoreline development permits.

### **Policies:**

1. All shoreline uses and activities, including sewers and/or septic systems, 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. Setbacks, native vegetation zones, and stormwater management should be required to minimize negative water quality impacts.
3. Surface water runoff should be treated on-site, unless precluded by slope or other sensitive area conditions.

### **Regulations - General:**

1. Shoreline development shall minimize increases in surface runoff through control, treatment, and release of runoff so the receiving water quality and shore properties and features are not adversely affected. Control measures include, but are not limited to, dikes, catch basins settling ponds, oil interceptor drains, grassy swales, planted buffers, and fugitive dust control.
2. New shoreline residences or businesses within two hundred (200) feet of an existing sewer line and/or within an established sewer service area shall be connected to the sewer system.
3. Shoreline development shall comply with applicable requirements of the Stormwater Management Manual for the Puget Sound Basin (*Ecology* publication #91-75) as amended by Lynnwood's Engineering Design and Development Standards Manual.

## **J. Restoration of Impaired Ecological Functions**

The Shoreline Master Program's governing principles mandate that such Programs contain goals, policies, and actions for restoration of impaired ecological functions, [see WAC 173-26-186(8)(c)]. The ecological functions of Lynnwood's shoreline have been impaired by two major land use actions: construction of the Burlington Northern Santa Fe railroad line, and

construction of Lynnwood's wastewater treatment plant draining to Puget Sound. Neither of these actions can be easily or inexpensively reversed. Both are likely to remain for the foreseeable future. Lynnwood's goals, policies, and actions to restore impaired ecological functions need to be viewed within these constraints. Actions the City takes to restore impaired ecological functions will focus on actions other than changing these primary land uses. Given the small geographic size of Lynnwood's shoreline, such actions may extend beyond Lynnwood's shoreline jurisdiction. Lynnwood's shoreline restoration plan provides more details.

**Policies:**

1. Lynnwood will protect ecological functions, and restore impaired ecological functions, in its shoreline jurisdiction within reasonable limits of both biological science and cost effectiveness.
2. Lynnwood will protect and enhance ecological functions in the Lund's Creek watershed through land acquisition and management as a means of compensating for the loss of ecological functions within Lynnwood's shoreline jurisdiction.



## Section 5 – Specific Shoreline Uses

### A. Introduction – Table of Uses

This section contains a table of shoreline uses allowed in each Environment Designation, and policies and regulations relating to specific shoreline uses. Proposed development must comply with the policies and regulations of this section as well as Section 4 – General Policies and Regulations, and Section 6 – Policies and Regulations for Shoreline Modification.

While not all shoreline uses require a shoreline permit, no development shall be undertaken within the shoreline jurisdiction of Lynnwood except those consistent with the Shoreline Management Act, applicable State guidelines, and the Lynnwood SMP. Shoreline uses not specifically identified shall be evaluated on a case-by-case basis for consistency with the SMA and the SMP, and shall require a conditional use permit.

The High-Intensity and Aquatic environment designations apply to the area of current City of Lynnwood jurisdiction.

| Shoreline Use  | High-Intensity   | Aquatic  |
|--|------------------|----------|
| Bulkheads and similar structures<br>Single-family residential<br>Existing bulkhead w/in 100 ft.<br>Elsewhere | P<br>SSDP<br>CUP | NA       |
| Dredging   | NA               | CUP      |
| Filling (1)  | CUP              | CUP      |
| Land surface modification  | SDP              | NA       |
| Moorage structures and facilities  | SSDP/CUP         | SSDP/CUP |
| Parking (accessory)  | P                | NP       |
| Piers and docks  | CUP              | SSDP/CUP |
| Public parks and recreational facilities   | NP               | NA       |
| Railroad   | SSDP             | NP       |
| Recreational floats and mooring buoys  | NA               | P        |
| Wastewater treatment facilities  | SSDP             | NP (2)   |
| Signs, facility/use identification, public safety/direction and signals                                      | P                | CUP      |
| Street   | P                | NA       |
| Utilities  | P                | NP       |

P = Permitted

NP = Not Permitted

CUP = Conditional Use Permit

SSDP = Shoreline Substantial Development Permit

NA = Not Applicable

(1) Fill waterward of the OHWM requires a CUP (WAC 173-27-231 93) (c). This applies to all fill in the aquatic environment.

(2) Permission for outfall line to be included in SSDP/CUP for treatment plant

## **B. Primary Utility Facilities:**

This section contains regulations pertinent to the development of primary utility facilities such as wastewater treatment plants or similar. Regulations for auxiliary utilities are in subsection G of Section 5.

### **1) Policies**

1. Primary utility facilities – including expansion of existing facilities - should be located in shoreline areas only if no practical upland alternative or location exists.
2. Primary utility facilities and expansions should be designed and located to minimize impacts to shoreline ecological functions including riparian and near-shore areas and to the natural landscape and aesthetics.
3. Public health and safety shall be the highest priority for the planning, development and operation of primary utility facilities.

### **Regulations – General:**

1. The principal use permitted by this section is the Lynnwood wastewater treatment plant including sewage collection, holding, transfer and treatment pipelines, tanks, structures, containment facilities, buildings, etc. The following accessory facilities are also permitted:
  - a) Plant monitoring and control facilities and on-site administrative offices.
  - b) Plant access and logistical facilities such as storage areas, material handling ramps and facilities, etc, and including utility delivery (electrical, communication, etc.) facilities.
  - c) Plant security and safety features such as fences, signage, etc.
  - d) Other accessory or auxiliary uses or features, necessary to of the effective and efficient operation of the plant and which cannot feasibly be located outside the shoreline jurisdiction.
2. Expansion of existing primary utility facilities within the shoreline jurisdiction must demonstrate:
  - a) The expansion is designed to protect adjacent shorelands from erosion, pollution, or other environmentally detrimental factors during and after construction.
  - b) The project is planned to fit existing natural topography as much as practical and avoid alteration of the existing natural environment.
  - c) That debris, overburden and other construction waste materials will be disposed of so as to prevent erosion or pollution of a water body.

3. Primary utility facilities and expansions shall include provisions to control the quantity and quality of surface water runoff to natural water bodies, using best management practices to retain natural flow rates. A maintenance program to ensure continued proper functioning of such facilities shall be required.

### **C. Transportation Facilities:**

This section contains regulations pertinent to the development of streets, roads and railroads. These uses are permitted in the High Intensity Environment.

#### **Policies**

1. Streets and railroads should only be located in shoreline areas if no feasible upland alternative or location exists.
2. Transportation facilities and expansions thereof should be designed and located to minimize impacts to shoreline ecological functions including riparian and near-shore areas and to the natural landscape and aesthetics.
3. Transportation facilities and expansions thereof shall include facilities to control the quantity and quality of surface water runoff to natural water bodies, using best management practices to retain natural flow rates. A maintenance program to ensure continued proper functioning of such facilities shall be required.
4. Public safety shall be the highest priority for the planning and development and operation of transportation facilities.

#### **Regulations – General:**

1. The principal use permitted by this section is railroad tracks including roadbed and subgrade, but not including rail yards or maintenance facilities, terminals, stations, passenger or freight handling or transfer facilities. The following accessory facilities are permitted;
  - a) Safety signals not exceeding 25 ft. in height and signs not exceeding 10 feet in height or four square feet in area.
  - b) Slide fences not exceeding six feet in height.
  - c) Pedestrian fences not exceeding six feet in height and not made of solid or vision obstructing materials.
2. New railroads requiring right-of-way expansion are prohibited.
3. Expansion of existing transportation facilities within existing right-of-way must demonstrate:
  - a) That a shoreline location is needed and that no reasonable upland alternative exists.

- b) The facility is designed to protect adjacent shorelands from erosion, pollution, or other environmentally detrimental factors during and after construction.
- c) The project is planned to fit existing topography as much as possible and avoid unnecessary alteration of the existing natural environment.
- d) That debris, overburden and other construction waste materials will be disposed of so as to prevent erosion or pollution of a water body.

**D. Parking:**

The following provisions apply to parking areas accessory to a permitted shoreline use. Parking as a primary use is prohibited within the shoreline jurisdiction.

**Policies:**

1. Parking should directly serve an approved shoreline use and be sensitive to adjacent shorelines and properties.
2. Parking facilities should be located, designed, constructed, and operated to minimize adverse impacts to water quality, aesthetics, public access, vegetation and habitat, stormwater runoff, noise, and glare.
3. Parking should be planned to achieve optimum use. Where possible, parking should serve more than one use (e.g. recreational use on weekends and commercial use weekdays).

**Regulations - General:**

1. Parking in the shoreline jurisdiction is subject to all requirements of the Lynnwood parking code (LMC Ch. 21.18 (Ord. 2730, Jun. 2008 or its successor) incorporated herein by reference.
2. Parking shall be prohibited over water.
3. Parking in the shoreline jurisdiction shall directly serve a shoreline use.
4. Parking facilities shall be located, designed and landscaped to minimize adverse impacts (including aesthetic impacts) to adjacent shorelines and properties. Landscaping shall consist of native vegetation or species identified in an approved plant list or landscape plan and shall be designed and installed to provide effective and appropriate screening within three (3) years of planting. Plantings shall be maintained for the life of the parking facility.
5. Parking facilities serving individual shoreline buildings shall be located landward of the principal building served, except when the parking facility is within or beneath

the structure and screened, or where an alternate location would have less adverse impacts on the shoreline.

6. Parking facilities shall provide safe, convenient pedestrian circulation within the parking area and to the shoreline.
7. Parking areas shall include facilities to control the quantity and quality of surface water runoff to natural water bodies, using best management practices to retain natural flow rates. A maintenance program to assure continuing proper functioning of such facilities shall be required.

### **E. Signs:**

Signs are regulated through LMC, Chapter 21.16, Signs (Ord. 2013, May 2000, or its successor). The following policies apply to signs within the Shoreline Master Program jurisdiction.

#### **Policies:**

1. Signs should be designed and placed, and be made of materials compatible with the aesthetic quality of the existing shoreline and adjacent land and water uses.
2. Signs should not block or interfere with visual access to the water or shorelands.
3. Signs should be permanent in nature, and should serve and be attached to an approved use.

#### **Regulations- General:**

1. Signs in the shoreline jurisdiction are subject to requirements of the Lynnwood Sign Code (LMC 21.16) incorporated herein by reference.
2. The following signs shall be permitted in the High-Intensity Environment:
  - a) Facility or development identification signs attached to the use or structure or free-standing signs not more than four feet high.
  - b) Directional, information or regulatory signs, placards or plaques not more than four feet high and four square feet in area.
  - c) Signs identifying private property and prohibiting trespassing or public access provided such are not more than four feet high and two-square feet in area.
  - d) Signs necessary for public safety or the safe operation of a use permitted in the High Intensity Environment including railroad signals up to 25 ft. high.
3. Signs are prohibited in the aquatic environment unless it can be demonstrated that:

- a) The sign is necessary for the public health or safety, and:
  - b) It is not feasible to place the sign in an upland area, or that its purpose could not be achieved if placed in an upland area.
5. A shoreline conditional use permit is required for any sign in the aquatic environment.

**F. Piers, Docks, Floats, and Mooring Buoys:**

Uses which employ a pier or dock (for example industry) are subject to the provisions herein as well as the provisions contained in Section 4, General Policies and Regulations. Community or joint-use docks serving five (5) or more single family residences also must comply with the provisions of this section.

Pursuant to RCW 90.58.030 (3-e-vii) or its successor, certain activities are exempt from obtaining a Shoreline Substantial Development Permit. For the benefit of the owner, surrounding properties, and water body users, the City will review all proposals for piers and docks to determine whether:

1. The proposal is exempt from the requirements for a shoreline permit;
2. The proposal is suitably located and designed and potential impacts have been recognized and mitigated; and
3. The proposal is consistent with the intent, policies, and regulations of the Act (RCW 90.58.140(1) or its successor) and this Program.

Exempt activities are subject to the provisions of the SMP.

**Policies:**

1. Multiple use and expansion of existing conforming piers, docks, and floats should be encouraged over construction and/or proliferation of new facilities. Joint use facilities are preferred over new, single-use piers, docks, and floats.
2. The use of mooring buoys should be encouraged in preference to piers or docks.
3. Piers, docks, and floats should be designed to minimize interference with navigable waters, public use of the shoreline, and views from adjoining properties.
4. Piers, floats, and docks should be sited and designed to minimize possible adverse environmental impacts, including potential impacts on littoral drift, sand movement, water circulation and quality, and fish and wildlife habitat.
5. Proponents of commercial pier, float, and dock projects are encouraged to provide public docking, launching, and recreational access.

6. Local programs and coordinated efforts among private and/or public agencies should be initiated to remove or repair failing, hazardous, or nonfunctioning piers and docks and restore such facilities and/or shore resources to a natural and/or safe condition.
7. Use of natural, non-reflective materials in pier and dock construction should be encouraged. Precautions should be taken to ensure containment of plastics and other non-biodegradable materials.
8. The proposed structure size and use intensity of any dock, pier, and/or float should be compatible with the surrounding environment and land and water uses.
9. Pier and dock construction shall be restricted to minimum size necessary to meet the needs of the proposed water dependent use.
10. New pier and dock construction, excluding docks accessory to single family residences, should be permitted only when the applicant has demonstrated that a specific need exists to support the intended water dependent use.

**Regulations – General:**

1. Piers and docks shall be conditionally permitted in the High-Intensity and Aquatic Environments.
2. Proposals for piers and docks shall include, at a minimum, the following information:
  - a) Description of the proposed structure, including its location, dimensions, materials, design, and any shoreline stabilization or other modification required by the project;
  - b) Ownership of uplands, tidelands, and shorelands within three hundred (300) feet of the property boundaries;
  - c) Proposed location of piers, floats, or docks relative to property lines, OHWM, the line of navigation, the construction limit line, and the contour of the extreme low tide, as applicable;
  - d) Location, width, height, and length of piers and docks on adjacent property,
  - e) Agreements, if any, for cooperative use.
3. Piers and docks shall be prohibited in areas identified by the City, the Washington Dept. of Fish and Wildlife (DFW), or Dept. of Natural Resources (DNR) as having high environmental value for shellfish, fish life, or wildlife, except:
  - a) Where functionally necessary to the propagation, harvesting, testing, or experimentation of said marine fisheries or wildlife, or

- b) Where approved as a conditional use if it can be demonstrated that the dock or pier will not be detrimental to the natural habitat or species of concern.
- 4. Piers, floats, buoys, and docks shall not interfere with use of navigable waters.
- 5. Piers and docks may be limited in length or prohibited, where necessary, to protect navigation, public use, or habitat values.

**Regulations – General Design and Construction Standards:**

- 1. Pilings must be structurally sound prior to placement. Large spans on a few pilings shall be favored over small spans on more pilings.
- 2. Piles, floats, or other elements in direct contact with water shall not be treated or coated with biocides such as paint or pentachlorophenol. The use of arsenate compounds or creosote-treated members is prohibited.

**Regulations – Mooring Buoys and Floats:**

- 1. Mooring buoys and floats for recreational use shall be permitted in the Aquatic Environment offshore from the High-Intensity Environment. Mooring buoys for commercial use shall be permitted as a conditional use offshore from the High-Intensity Environment.
- 2. Buoys shall not interfere with navigation, shall be visible in daylight one hundred (100) yards away, and shall have reflectors for night visibility.
- 3. Owners of buoys located seaward of the extreme low tide line shall obtain a navigable waterbed lease from the DNR. (WAC 332-30-122 (1)(ii) or its successor).
- 4. Buoys shall lie between the side lot lines of waterfront property extended seaward, except those on DNR tidelands. Vessels moored to the buoys shall not be allowed to swing across the extended side lot lines. Where the configuration of the lot precludes these requirements, the buoy owner shall file with the City a written statement from the affected, adjacent, waterfront property owner(s) agreeing to the buoy placement.
- 5. Mooring buoys shall be installed at least twenty (20) yards from other permitted piers, docks, floats, or buoys so as not to interfere with or obstruct existing piers, docks, floats, or buoys.
- 6. Owners of waterfront property are permitted to install one (1) mooring buoy per waterfront lot, except that where the waterfront lot is owned in community, the City may permit upon the owner's application, additional buoys to total not to exceed one (1) per owner in the community. (WAC 332-30-122 (1)(ii) or its successor).
- 7. Buoys shall be located no more than two-hundred (200) feet beyond the extreme low tide line, the three (3) fathom depth contour (18 feet at mean

low tide), or the line of navigation, whichever is closest to shore. (WAC 332-30-148(2) or successor).

### **G. Utilities:**

Accessory utilities are associated with all types of shoreline development. These provisions apply to all development, including those not needing a shoreline development permit. (Refer to Section 5.A Table of Uses for primary use utility provisions.)

### **Policies:**

1. Utilities are necessary to shoreline uses and should be properly installed and operated to protect the shoreline and water from degradation.
2. Utility facilities and rights-of-way should be placed outside shoreline areas to the maximum extent feasible. When a shoreline location is necessary, utility lines should be underground.
3. Utility facilities should be designed, located and maintained to assure no net loss of shoreline ecological functions, preserve the natural landscape and minimize conflict with existing and planned land uses.

### **Regulations- General:**

1. In shoreline areas, utility lines, including pipelines and cable, shall be placed underground unless this is demonstrably not feasible. Such lines shall use existing rights-of-way, corridors and/or bridge crossings whenever possible. Proposals for new corridors in the shoreline area either parallel to the shoreline or involving a water crossing must fully substantiate the infeasibility of existing or other routes.
2. Utility development shall, coordinate with government agencies, to provide for compatible multiple use of sites and rights-of-way. Such uses include shoreline access points, trails, and other recreation and transportation uses, provided such will not unduly interfere with utility operations or endanger public health and safety.
3. Septic fields shall be located on the landward side of development, where possible.
4. Sites disturbed for utility installation shall be stabilized during and following construction to avoid adverse impacts from erosion. Sites shall be replanted with native vegetation immediately following construction.



## **Section 6 – Shoreline Modification**

### **A. General Principles:**

These provisions pertain to all shoreline modifications associated with or supporting a specific shoreline use. They also apply to projects whose chief intent is to protect the shoreline of a particular property to which the permit applies.

### **General Principles:**

1. Allow structural shoreline modifications only where they are demonstrably necessary to support or protect an allowed primary structure or legally existing shoreline use in danger of loss or substantial damage, or are necessary for reconfiguration of the shoreline for mitigation or enhancement.
2. Reduce the adverse effects of shoreline modifications and, as much as possible, limit shoreline modifications in number and extent.
3. Allow only shoreline modifications appropriate to the specific type of shoreline and environment conditions for which they are proposed.
4. Assure shoreline modifications individually and cumulatively do not result in a net loss of ecological functions by giving preference to shoreline modification types with less impact on ecological functions and requiring mitigation of identified impacts from shoreline modifications.
5. Base provisions on scientific and technical information and comprehensive analysis of drift cells for marine waters or reach conditions for rivers and streams. Contact the *Ecology* for available drift cell characterizations.
6. Plan for enhancing impaired ecological functions where feasible and appropriate while accommodating permitted uses. As shoreline modifications occur, incorporate measures to protect ecological shoreline functions and ecosystem-wide processes.
7. Avoid and reduce significant ecological impacts according to the mitigation sequence in WAC 173-26-201(2) (e).

### **Policies:**

1. Rip-rapping and other bank stabilization measures should be located, designed, and constructed primarily to prevent damage to existing development and property.
2. New development should be located and designed to prevent or minimize shoreline stabilization and flood protection measures.
3. Stabilization and protection works which are more natural in appearance, more compatible with on-going shore processes, and more flexible for long-term

streamway management, such as protective berms or vegetative stabilization, should be utilized over structural means such as concrete revetments or extensive rip-rap.

4. Structural solutions to reduce shoreline damage should be permitted only after demonstrating through a geotechnical analysis that nonstructural solutions would not achieve the same purpose.
5. Sloping revetments or other energy-dissipating designs are preferred to reduce the destructive scouring effect of bulkheads on beaches.
6. Shoreline stabilization projects should provide for long-term multiple use and shoreline public access, where appropriate.
7. Natural features such as snags and stumps support fish and other aquatic systems and when not intruding on navigational channels or threatening other permitted uses, should be left undisturbed except for approved beach stabilization projects.

#### **Regulations- General:**

1. All shoreline modifications must be in support of an allowable shoreline use in conformance with the SMP. Shoreline modifications not supporting a conforming shoreline use are prohibited.

Exception: Shoreline stabilization may be allowed as a shoreline use if such is demonstrably necessary to maintain shoreline stability and habitat as set forth in WAC 173.26.231(3)(a)(iii), and complies with all provisions of the SMP. Shoreline stabilization shall be limited to the minimum size necessary to accomplish the purpose.

2. All applicable Federal and State permits shall be obtained and complied with in the construction and operation of shoreline stabilization and flood protection works.
3. All new development activities shall be located and designed to prevent or minimize the need for shoreline stabilization. New development on steep slopes and bluffs shall be set back sufficiently to prevent the need for future shoreline stabilization.
4. The City shall require and/or use the following information during its review of shoreline stabilization, modification, and flood protection proposals:
  - a) Project purpose;
  - b) Environment of the project including:
    - i. Existing shoreline and stabilization and flood protection devices within three-hundred (300) feet on each side of the proposed project;
    - ii. Physical, geological, and/or soil characteristics of the area;

- iii. Net direction of littoral drift and tidal currents, if any;
    - iv. Profile rendition of beach and uplands; and,
    - v. Physical or geological stability of uplands (beach type, slope and materials; uplands type, slope and materials; soils types [Soil Conservation Service]).
  - c) Design, construction materials, and methods (to include annotated drawings):
    - i. Materials used, dimensions, designs;
    - ii. Slope angle; and,
    - iii. Location of project relative to toe and crest of uplands and upland structures;
  - d) Potential impact upon area shore and hydraulic processes, upland stability, adjacent properties, and shoreline and water uses;
  - e) Alternative measures, including nonstructural, which will achieve the same purposes.
5. The City shall require and use the following information to review all shoreline modification proposals:
- a) Shoreline stabilization measures shall not be designed or constructed so as to result in channelization of normal stream flows;
  - b) Stream channel direction modification, realignment and straightening are prohibited unless essential to uses consistent with this program;
  - c) Shoreline stabilization shall not be designed so as to cause scouring of the beach at the toe of protective devices or erosion on the level of the seaward beach or impact adjacent properties; and,
  - d) Upon project completion, all disturbed shoreline areas shall be restored to as near pre-project configuration as possible and replanted with native vegetation or other species approved by the City.

**Regulations - Prohibited:**

1. New development that would require shoreline stabilization that will significantly affect adjacent or down current shorelines and properties.
2. Shoreline stabilization and flood protection works in wetlands and on point and channel bars, and in salmon and trout spawning areas, except for fish or wildlife habitat enhancement.

3. Beach enhancement if it interferes with the normal public use of the navigable waters of the State.

### **B. Beach Enhancement**

Beach enhancement is the upgrading of terrestrial and tidal shorelines and/or submerged shorelines for purposes of stabilization, recreational enhancement, and aquatic habitat creation or restoration using native or similar materials. Materials used depend on the intended use and shoreline dynamics such as grade, drift, etc. For recreation uses various grades of clean sand or pea gravel are often used to create, restore, or enhance a beach. To restore or recreate a shore feature or 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 aquatic habitats, existing water quality levels, and flood-holding capacities are maintained.
2. Beach restoration/enhancement utilizing naturally regenerating systems should be required 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:
    - i. Recreate or enhance natural conditions.
    - ii. Create or enhance natural habitat.
    - iii. Erosion mitigation.
    - iv. Enhance public shoreline access.
3. Supplementary beach nourishment should be encouraged where existing shoreline stabilization is likely to increase impoverishment of existing beach materials at or downdrift from the project site.

#### **Regulations - General:**

1. Beach enhancement shall be a conditional use in all environments, but shall be undertaken only for restoration, enhancement, maintenance of natural resources, or to enhance public shoreline access.

2. Beach enhancement may be permitted as a conditional use when the applicant has demonstrated that no significant change in littoral drift adversely affecting adjacent properties or habitat will result.
3. Natural beach restoration/enhancement shall meet the following standards:
  - 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. Detrimentially interrupt littoral drift, or redirect waves, current or sediments to other shorelines;
    - ii. Result in any exposed groin-like structures, except that small "drift-sill" groins may be used as a means of stabilizing restored sediment as part of a well-planned beach restoration program;
    - iii. Extend waterward more than the minimum amount necessary to achieve the desired stabilization;
    - iv. Result in contours sufficiently steep to impede easy pedestrian passage, or trap drifting sediments;
    - v. Create additional dry land mass; or,
    - vi. Disturb significant areas of valuable shallow water fish/wildlife habitat as determined by the DFW, unless such habitat is immediately replaced by comparable or better habitat.
  - c) Natural Beach Restoration Construction Standards:
    - i. The size and/or mix of materials to be added to a beach shall be as similar as possible to the undisturbed beach sediment, but large enough to resist current, wake, or wave action at the site.
    - ii. The restored beach shall approximate, and may slightly exceed, the natural beach width, height, or profile (but not so as to obviously create additional dry land mass).

### **Regulations - Prohibited:**

1. Beach enhancement is prohibited in spawning, nesting, or breeding habitat and also where littoral drift of the enhancement materials adversely affects adjacent spawning grounds or other areas of biological significance.
2. Dikes, levees, jetties, groins (except drift sills for beach enhancement), gabions and breakwaters are prohibited.

### **C. Shoreline Armoring (Revetments and Bulkheads)**

In high-energy wave environments, bulkheads reflect some energy downward which may scour and erode the base, or "toe" of the bulkhead, lowering the beach level. This scouring may also undercut the bulkhead to the point of collapse. Bulkheading may also adversely impact long-shore fishery habitat. The slope and irregular surface of revetments tends to absorb the wave energy similar to the run-up on a natural beach.

The SMA exempts construction or repair of a normal protective revetment or bulkhead from the substantial development permit process when it is necessary to protect an existing single-family residence. Even when exempt, however, these structures must comply with all applicable SMP regulations. New revetments or bulkheads must comply with the requirements of WAC 173-26-231(3)(a)(iii)(B). Replacement revetments or bulkheads must comply with WAC 173-26-231(3)(a)(iii)(C). A statement of exemption for a single-family residence must be obtained from the City before commencing construction of any bulkhead or revetment.

### **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. Because of the potential impact on complex, littoral long-shore drift systems and potential damage to other shoreline properties, bulkhead construction should be discouraged, unless it can be demonstrated that a revetment or nonstructural solution (bioengineering, setbacks, native vegetation zones) is not feasible.
3. Shoreline armoring should be designed, improved, and maintained to provide public access whenever possible.
4. Shoreline armoring should not be constructed waterward of feeder bluffs.
5. Neighboring property owners should be encouraged to coordinate planning and development of revetments or other solutions for an entire sector to avoid erosion of down-drift properties.

## Regulations – General:

1. Revetments and bulkheads are permitted uses in the High-Intensity Environment where there are bulkheads or revetments within approximately 100 feet on either side of the property. If there are no bulkheads or revetments within 100, new bulkheads and revetments shall be conditional uses. Bulkheads and revetments may be permitted in the Aquatic Environment if they are permitted in the adjacent upland environment and are located at or near the OHWM, otherwise bulkheads and revetments shall be prohibited in the Aquatic Environment. A statement of exemption shall be obtained from the City prior to construction of any bulkhead or revetment in front of an existing single-family residence. The statement of exemption shall meet all requirements of this SMP. Replacement walls or bulkheads shall not encroach waterward of the OHWM or existing structure unless the residence was occupied prior to January 1, 1992 and there are overriding safety and environmental concerns.
2. All forms of protective structures shall be designed, constructed, and maintained so as to not degrade water quality and/or fisheries habitat, and conform to state agency policies and regulations, including DFW criteria and permit requirements.
3. Proposed protective structures shall be professionally designed if it is determined there are uncertainties, such as:
  - a) Inadequate data on local geophysical conditions;
  - b) Potential effect on adjacent property; or,
  - c) Potential adverse effects on beaches seaward of structure.
4. Natural materials and processes such as protective berms, drift logs, brush, beach feeding, or vegetation stabilization shall be used to the maximum extent possible.
5. Revetments and bulkheads shall be allowed for the operation and location of water dependent and water-related activities consistent with the SMP only when geotechnical analysis demonstrates that the following conditions exist:
  - a) Tidal action, current or wave erosion threatens an existing primary structure or use:
  - b) The erosion is not being caused by upland conditions such as de-vegetation or drainage.
  - c) All alternatives are infeasible (i.e., use relocation, redesign, nonstructural shore stabilization).
  - d) The use of natural materials and processes and nonstructural solutions for shoreline stabilization are unworkable to protect existing development.
  - e) The bulkhead or revetment will not result in a net loss of ecological functions.

6. Revetments shall be constructed no steeper than a 45 degree slope (1 horizontal to 1 vertical).
7. Shoreline stabilization structures shall be limited to the minimum size necessary.
8. Impacts to sediment transport shall be avoided or minimized.
9. Ensure that publicly financed or subsidized shoreline erosion control measures do not restrict public access except when such access not feasible due to incompatible uses, safety, or ecological impacts.

**Regulations - Prohibited:**

1. Gabions (wire mesh filled with concrete or rocks) are prohibited.
2. Revetments and bulkheads shall be prohibited for any purpose if they will cause significant erosion or beach starvation.
3. Construction of a bulkhead, revetment, or other armoring structure for the purpose of retaining a landfill or creating dry land is prohibited.
4. Shoreline hardening (i.e., revetments, bulkheads, seawalls) shall not be located on shores where valuable geo-hydraulic or biological processes are sensitive to interference and critical to shoreline conservation such as feeder bluffs, marshes, wetlands, or accretion shoreforms such as spits, hooks, bars, or barrier beaches.

**Regulations – Location:**

1. Shoreline armoring shall not be approved in any known or suspected midden site without the written permission of the State Historic Preservation Officer. (RCW 27.53.060 or its successor).
2. Shoreline hardening (revetments and bulkheads) shall be permitted only where local physical conditions such as foundation-bearing material and surface and subsurface drainage are suitable for such alterations.
3. On all shorelines, armoring structures shall be located landward of the OHWM, landward of protective berms (artificial or natural), and generally parallel to the natural shoreline except as allowed below:
  - a) On marine accretion beaches, bulkheads shall be set back a minimum of twenty-five (25) feet landward of the OHWM and shall parallel the natural shoreline. On slopping or bluff/cliff shores, armoring structures shall be placed as far landward of the OHWM as feasible.
  - b) On bluff or bank shorelines where no other armoring structures are adjacent, such structures shall be as close to the bank as possible. However, a

revetment footing shall extend waterward sufficiently to permit adequate run-up to dissipate wave energy.

- c) Revetments and bulkheads shall be flush with existing bulkheads on adjoining properties, except where the adjoining bulkheads extend waterward of the OHWM or the toe of the bank or permitted landfill, in which case the location requirements above shall apply.
4. New development should be located and designed to avoid the need for future shoreline stabilization to the extent feasible. Subdivision of land must be regulated to assure that the lots created will not require shoreline stabilization in order for reasonable development to occur using geotechnical analysis of the site and shoreline characteristics. New development on steep slopes or bluffs shall be set back sufficiently to ensure that shoreline stabilization is unlikely to be necessary during the life of the structure, as demonstrated by a geotechnical analysis. New development that would require shoreline stabilization which causes significant impacts to adjacent or down-current properties and shoreline areas should not be allowed (WAC 173-231(3)(a)(iii)).

#### **Regulations – Design:**

1. 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 or adequate smaller filter rock shall 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 wave action.
2. Revetments shall be sited and designed consistent with appropriate engineering principles. Professional, geologic, site studies or design may be required for any proposed revetment or bulkhead if the City determines sufficient uncertainties or potential for damage to other shoreline properties and features exist.
3. When a revetment is required at a public access site, provision for safe access to the water shall be incorporated into its design.
4. Stairs or other permitted structures may be built into a revetment, but shall not extend waterward of it.
5. Revetments shall be designed to permit the passage of surface or ground water without causing ponding or saturation of retained soil/materials.
6. Adequate toe protection shall be provided to ensure revetment stability without relying on additional rip-rap.

7. Revetment construction shall use stable, non erosion-prone, homogeneous materials such as concrete, wood, rock rip-rap, or other suitable materials which accomplish the desired end with the maximum preservation of natural shoreline characteristics.

#### **D. Dredging and Dredge Material Disposal**

Dredged material disposal on land is also subject to the landfill policies and regulations of the SMP.

Pursuant to WAC 173-27-040 or its successor, certain activities, such as those associated with normal maintenance and repair, are exempt from the requirements for a Shoreline Substantial Development Permit (SSDP), but may still require a shoreline conditional use permit or variance.

Actions exempt from SSDPs are required to comply with the SMA and all provisions of the SMP. *Ecology*/Army Corps of Engineers notifications of dredging proposals will be reviewed by the City to determine whether they are exempt from the SSDP requirement and to ensure compliance with regulations of the SMA and SMP.

#### **Policies:**

1. Dredging and dredge material disposal should be located and conducted in a manner which minimizes damage to the existing ecology and natural resources of the area to be dredged, and to the disposal site.
2. Dredging waterward of the OHWM for the primary purpose of obtaining fill material shall not be allowed except when the material is necessary for restoring ecological functions.
3. Dredging operations should be planned and conducted to minimize interference with navigation and adverse impacts to other shoreline uses, properties, and values.
4. Dredged material disposal in marine waters, other than for approved environmental enhancement or remediation projects or other uses permitted by this SMP, should only be allowed at sites designated through, and in a manner consistent with the policies and procedures of the Puget Sound Dredged Disposal Analysis (PSDDA) program (managed jointly by the Army Corps of Engineers, US Environmental Protection Agency, and Washington State DNR & *Ecology*).
5. When dredged material has suitable organic and physical properties, dredging operations should be encouraged to recycle dredged material for beneficial use in beach enhancement, habitat creation, sediment remediation (capping), or aggregate or clean cover material at a landfill (where appropriate).

### **Regulations – General:**

1. Dredging shall be permitted as a conditional use in the Aquatic Environment and shall be for the restoration, enhancement, or maintenance of natural resources and navigational channels.
2. Applications for shoreline dredging and dredged material disposal shall include copies of all information, data, and analyses submitted in accordance with the PSDDA evaluation procedures for managing the in-water disposal of dredged material and the Corps of Engineers process for Section 10 (Rivers and Harbors Act), and Section 404 (Clean Water Act) permits. This shall include the PSDDA-approved Sampling Analysis Plan, the PSDDA data report and quality and control (QA/QC) report, and the suitability decision issued by the PSDDA agencies.
3. In evaluating permit applications for dredging projects, the adverse effects of the initial dredging, subsequent maintenance dredging, and necessary dredged material disposal shall be considered. Dredging and dredged material disposal shall be permitted only where it is demonstrated that the proposed actions will not:
  - a) Result in significant and/or ongoing damage to water quality, fish, shellfish, and other essential marine biological elements; and,
  - b) Adversely alter natural drainage and circulation patterns, currents, and tidal flows, or significantly reduce flood water capacities.
4. Dredging and dredged material disposal shall be scheduled to protect biological productivity and minimize interference with fisheries. Dredging shall not occur in commercial fishing (e.g., gill net, crabbing, etc.) areas during a fishing season, unless specifically addressed and mitigated for in the permit.
5. Dredging and dredged material disposal shall be prohibited in or on archaeological sites on, or eligible for listing on, the Washington State Register of Historic Places until such time as they have been released by the State Archaeologist.

### **Regulations – Dredging:**

1. Dredging below the OHWM shall be permitted as a conditional use only:
  - a) For navigation or navigational access: Dredging of established navigation channels and basins is restricted to maintaining existing authorized location, depth, and width. Additional dredging is allowed only where needed to accommodate existing navigational uses and when ecological impacts are minimized;
  - b) In conjunction with a water-dependent use of water bodies or adjacent shorelines;

- c) As part of an approved habitat or environmental remediation project; or,
  - d) In conjunction with a navigational structure, wastewater treatment facility, or other public facility for which there is a documented public need and where other feasible sites or routes do not exist.
2. When dredging is permitted, the dredging shall be the minimum necessary to accommodate the proposed use.
3. Dredging shall utilize techniques that cause minimum dispersal and broadcast of bottom material.

**Regulations - Prohibited Dredging:**

1. New dredging activity is prohibited in the following locations:
  - a) In environmentally sensitive habitats (e.g., stream mouth estuaries, wetlands) except by shoreline conditional use permit.
  - b) Along net-positive drift sectors and where geo-hydraulic processes are active and accretion shoreforms would be damaged, altered, or irretrievably lost.
  - c) In shoreline areas with bottom materials prone to significant sloughing and refilling due to currents or tidal activity, resulting in the need for continual maintenance dredging.
  - d) In critical life-cycle habitats of officially designated or protected fish, shellfish, or wildlife.
  - e) Where concentrations of environmental pollutants or toxic chemicals are present in sediments and would be released in dredging operations, except as part of a permitted environmental enhancement or remediation program.
2. Dredging for the primary purpose of obtaining landfill material is prohibited.

**Regulations – Dredge Material Disposal:**

1. Unconfined disposal of dredged material in marine waters, other than for approved environmental enhancement or remediation projects under a shoreline conditional use permit, shall only be allowed at sites identified through the process defined in the PSSDA report and incorporated in DNR WAC 332-30-166 or its successor (Open Water Disposal Sites).
2. Yearly status reports shall be prepared and submitted by the dredge disposal permittee to the Director as requested. The reports shall state the quantity of material dumped, characterize the quality of the material, and review any factors necessary to verify continued compliance with the shoreline permit.

3. In-water disposal shall utilize techniques that cause the least dispersal and broadcast of materials, unless specifically designed and approved as a dispersal site.
4. Use of dredged materials for beach enhancement shall be conducted to comply with Section 6, Subsection A. Beach Enhancement, so that:
  - a) Dredged materials deposited on land shall constitute fill and, when deposited within the jurisdiction of the SMP, shall comply with the fill regulations.
  - b) Near-shore or upland disposal of dredged materials not used for beach enhancement shall not be located upon, adversely affect, or diminish environmentally critical areas, recognized wildlife habitat, public access, water quality, or drainage.
  - c) Revegetation of land disposal sites with native species and other approved plants shall be required.

#### **E. Fill**

Fill is the placement of soil, sand, rock, gravel, existing sediment or other material (excluding solid waste) to create new land, tideland, or bottom land area along the shoreline below the OHWM, or on wetland or upland areas in order to raise the elevation. Any landfill conducted within shoreline jurisdiction must comply with the following policies and regulations, and with the other provisions of the SMP. Beach enhancement as defined in the SMP shall not be considered fill.

#### **Policies:**

1. Fill waterward of the OHWM should be allowed only if necessary for water-dependent and/or public access uses consistent with the SMP, and with a shoreline conditional use permit as outlined under WAC 173-26-231 (3) (c). Fill for a restoration project does not require a conditional use permit.
2. Shoreline fills should be designed and located so there will be no significant damage to existing natural resources, including surface water drainage systems.
3. In evaluating fill projects, factors that should be considered include:
  - a) Conflict with potential and current public use of the shoreline and water surface area as identified in adopted City plans, policies, and programs;
  - b) Total water surface reduction;
  - c) Navigation restrictions;
  - d) Impediments to water flow and drainage;
  - e) Reduction of water quality; and,

- f) Destruction of habitat.
- 4. The perimeter of fills should be designed to avoid or eliminate erosion and sedimentation impacts, both during initial fill activities and over time.
- 5. Where permitted, fills should be the minimum necessary to provide for the proposed use and permitted only for a specific development proposal permitted by the SMP. Speculative fill activity is prohibited.

**Regulations – General:**

- 1. Fill shall be permitted as a conditional use in the High-Intensity Environment.
- 2. Fill in the Aquatic Environment shall be permitted as a conditional use only for water-dependent or public uses, or as part of a permitted environmental enhancement or remediation project.
- 3. Applications for fill permits shall include the following:
  - a) Proposed use of the fill area;
  - b) Source of the fill material and physical, chemical, and biological characteristics of the fill material as required by the Director;
  - c) Method of placement and compaction;
  - d) Location of fill relative to the OHWM and natural and/or existing drainage patterns.
  - e) Perimeter erosion control or stabilization means; and,
  - f) Type of surfacing and runoff control devices.
- 4. Pile or pier supports shall be utilized when feasible in preference to fills. Fills for approved road development in floodways or wetlands shall be permitted only if pile or pier supports are proven infeasible.
- 5. Fill shall be permitted only if it is demonstrated that the proposed action will not:
  - a) Result in significant damage to water quality, fish, shellfish, and/or wildlife habitat; or,
  - b) Adversely alter natural drainage and circulation patterns, currents, river and tidal flows, or significantly reduce flood water capacities.
- 6. Fills shall be the minimum necessary for the proposed use and permitted only for a proposal permitted by the SMP. Speculative fill activity is prohibited.

### **Regulations – Design and Construction:**

1. Where permitted, the fill shall be the minimum necessary to accommodate the proposed use.
2. Where fills reduce public access, compensatory public access shall be provided as part of the development project.
3. Fills shall be designed, constructed, and maintained to prevent, minimize, and control all material movement, erosion, and sedimentation from the affected area. Perimeters of permitted fill projects shall be designed and constructed with silt curtains, vegetation, retaining walls, or other mechanisms, and appropriately sloped to prevent erosion and sedimentation both during initial fill activities and afterwards. Such containment practices shall occur during the first growing season following completion of the fill.
4. Fill materials shall be sand, gravel, soil, rock, or similar material. Use of contaminated dredge material is prohibited.
5. The timing of fill construction shall be regulated to minimize damage to water quality and aquatic life within the time restraints recommended by the Washington DFW.



## **Section 7 – Administrative Regulations**

### **A. General**

The administrative system assigns responsibilities for implementation of the SMP and shoreline permit review, prescribes an orderly process for review of proposals and permit applications, and ensures persons affected by the SMP are treated fairly and equitably.

### **B. Director**

1. The Lynnwood Community Development Director or his/her designee (hereinafter "Director"), is vested with the following:
  - a) Overall administrative responsibility for the SMP;
  - b) Authority to grant statements of exemption from shoreline permits;
  - c) Authority to approve, conditionally approve, or deny shoreline substantial development permits and permit revisions in accordance with the policies and regulations of the SMP, provided that the decision may be appealed in accordance with Section J below;
  - d) Authority to determine if a shoreline variance permit application is minor, qualifying it for administrative decision; if the shoreline variance is not minor, it will be processed under the applicable procedures in Subsection K below;
  - e) Authority to approve, conditionally approve, or deny minor shoreline variance permit applications, provided that the decision may be appealed in accordance with Section J below;
  - f) Authority to determine compliance with the State Environmental Policy Act (RCW 43.21C or its successor).
2. The duties and responsibilities of the Director shall include:
  - a) Specifying required application forms and submittal requirements including type, details, and number of copies for shoreline substantial development, conditional use, and variance permits. At a minimum, the application shall include the information required in WAC 173-27-180 or its successor.
  - b) Determining if development proposals or other activities are consistent with the Shoreline Management Act (RCW 90.58) and the SMP.
  - c) Tracking and periodically evaluating cumulative effects of all project review actions in the shoreline jurisdiction.
  - d) Notifying the public of all permit applications.

- e) Advising interested citizens and applicants of the goals, policies, regulations, and procedures of the SMP.
- f) Making administrative decisions and interpretations of the policies and regulations of the SMP and the Shoreline Management Act.
- g) Determining whether a Shoreline Substantial Development Permit, shoreline conditional use permit, or shoreline variance permit is required.
- h) Collecting applicable fees.
- i) Determining if all applications and necessary related information are provided.
- j) Making field inspections.
- k) Conducting a thorough review and analysis of permit applications and related materials, and making written findings and conclusions.
- l) Making decisions pursuant to paragraph 1 above.
- m) Submitting applications and all relevant information and materials along with written findings and recommendations to the Hearing Examiner.
- n) Providing technical and administrative assistance to the Council, as needed, for effective and equitable implementation of the SMP and the SMA.
- o) Proposing amendments to the SMP as deemed necessary to more effectively and equitably achieve its goals and policies.
- p) Seeking remedies for alleged violations of the SMP, the SMA, or conditions of any approved shoreline permit.
- q) Coordinating information with affected agencies.
- r) Forwarding shoreline permits to *Ecology* for filing or appropriate action.
- s) Deciding whether to require any applicant granted a shoreline permit to post a bond or other acceptable security to assure the applicant and/or applicant's successors in interest shall adhere to the approved plans and all conditions attached to a shoreline permit. Such bonds or securities shall have a face value of at least one hundred (100) percent of the estimated development cost, including attached conditions. The City Attorney shall approve such bonds or securities as to form.

### **C. Hearing Examiner**

1. The City of Lynnwood Hearing Examiner is vested with authority to:
  - a) Approve, conditionally approve, or deny Shoreline variance and shoreline conditional use permit applications after holding an open record public hearing and after considering the findings and recommendations of the Director, which shall be given substantial weight.
  - b) Affirm, affirm with modifications, or reverse decisions on shoreline substantial development permit applications, minor Shoreline variance applications, and shoreline exemptions on appeal.
2. Further duties and responsibilities of the Hearing Examiner shall include:
  - a) Ensuring that proper notice is given to appropriate persons and the public for all hearings before the Hearing Examiner.
  - b) Basing all decisions on shoreline permits and administrative appeals on the criteria established in the SMA and the SMP.
  - c) Deciding whether to require any applicant granted a shoreline permit to post a bond or other acceptable security to assure the applicant and/or the applicant's successors in interest shall adhere to the approved plans and all conditions attached to the shoreline permit. Such bonds or securities shall have a face value of at least one hundred (100) percent of the estimated development cost, including attached conditions. The City Attorney shall approve such bonds or securities as to form.

### **D. Planning Commission**

The Lynnwood Planning Commission shall be responsible for hearing and making recommendations for action to the City Council on amendments to the Shoreline Master Plan

### **E. City Council**

The City Council is vested with authority to review and act upon any recommendations for amendments or revisions of the SMP. To become effective, amendments to the SMP must be reviewed and approved by *Ecology*, pursuant to RCW 90.58.190 or its successor and WAC Ch. 173-26 or its successor.

### **F. Permit or Exemption Required Before Undertaking Development or Activity**

1. Permits Required
  - a) A development, use, or activity shall not be undertaken within the jurisdiction of the Shoreline Management Act (Chapter 90.58 RCW or its successor) and

the Shoreline Master Program, unless it is consistent with the policy and procedures of the Shoreline Management Act, applicable State regulations and the Shoreline Master Program.

- b) A substantial development shall not be undertaken within the jurisdiction of the Shoreline Management Act and the Shoreline Master Program, unless an appropriate shoreline permit has been obtained, the appeal period has been completed, any appeals have been resolved, and/or the applicant has been given permission by the proper authority to proceed.
- c) Any person wishing to undertake substantial development or exempt development on shorelines shall apply to the Director for an appropriate shoreline permit or a Statement of Exemption.
- d) If a development, use or activity is listed as a conditional use by the SMP, such development, use, or activity shall not be undertaken within the jurisdiction of the SMA and the SMP, unless a shoreline conditional use permit has been obtained, the appeal period has been completed, any appeals have been resolved, and/or the applicant given permission to proceed by the proper authority.
- e) If a development, use, or activity cannot comply with the regulations of the SMP, a shoreline variance must be obtained before commencement of development or construction, or beginning the use or activity.
- f) If a project includes uses or activities that include both permitted and conditional uses, or a regular (major rather than minor) shoreline variance is required, the permit shall be heard and decided by the Hearing Examiner using the procedures, requirements, and criteria for a shoreline conditional use and/or variance.
- g) See WAC 173-27-070 or its successor for a description of how the permit requirements apply to developments undertaken prior to passage of the SMA.
- h) See WAC 173-27-060 or its successor for a description of how the permit requirements apply to federal agency projects.

## 2. Statement of Exemption

- a) No use or activity described in WAC 173-27-050 or other exempt development shall be undertaken within the jurisdiction of the SMA and the SMP, unless a statement of exemption has been obtained from the Director.
- b) The request for the statement of exemption shall be in writing, on forms required by the Director, and shall include the information required by the Director. In the case of an emergency, the Director may waive this requirement and authorize the use or activity orally or in writing. If authorized orally, it shall be put in writing as soon as possible. A statement of

exemption may be for a single development event, but the Director can issue a programmatic statement of exemption for a finite series of development events or regularly repeated activity, as long as the series of events or repeated activity can be described and predicted in sufficient detail so a determination can be made that they are and will as a whole, be exempt under WAC 173-27-050.

- c) The Director shall decide requests for a Statement of Exemption based on WAC 173-27-040 or its successor and the provisions of the SMA and SMP.
- d) Before determining that a proposal is exempt, the Director may conduct a site inspection to ensure that the proposal meets the exemption criteria.
- e) Exempt developments and activities shall comply with the SMA and SMP. The Director shall condition statements of exemption to ensure the exempt development or activity complies with the SMA and SMP.
- f) In the case of development subject to the policies and regulations of the SMP, but exempt from the substantial development permit process, shoreline management requirements may be made conditions of the building permits and/or other permits and approvals. For example, the approval of a building permit for a single-family residence can be conditioned with provisions from the SMP.
- g) Whenever a development falls within the exemptions stated in WAC 173-27-040 or its successor, a letter exempting the development from the substantial development permit requirements of RCW 90.58 or its successor shall be given to the applicant and to *Ecology*.

### **G. Fees**

A filing fee in an amount established by the City Council ~~by resolution~~ shall be paid at the time of application. After the fact permit fees will be triple the otherwise required amount.

### **H. Permit Application**

The Director shall provide the necessary application forms for shoreline substantial development, conditional use, and variance permits. The application shall provide, at a minimum, the information required by WAC 173-27-180.

### **I. Shoreline Substantial Development Permit Process**

- 1. Shoreline Substantial Development Permit Review Procedure
  - a) The applicant shall submit a complete application including a site plan, the required fees, and a SEPA Checklist to the Director.

- b) The Director shall review the application and determine within 28 days whether it is complete. The application shall not be deemed filed until the Director determines the application is complete and all required fees are paid. If the application is not complete, the Director shall contact the applicant and request the needed information or fee.

2. Notice

- a) The Director shall give notice of the shoreline application by at least one of the following methods:
  - i. Mailing of the notice by first class mail, postage prepaid, to the applicant, the property owner and each person identified by the real property records of the Snohomish County auditor as the owner of property within three hundred (300) feet of any boundary of the subject property, and of any contiguous property owned by the owner of the land on which the proposal is sited. The notices shall include the information required by WAC 173-27-110 or its successor.
  - ii. Posting notice in a conspicuous manner on the property where the project is to be constructed.
  - iii. Any other means deemed appropriate to accomplish the objectives of reasonable notice to adjacent landowners and the public.
- b) Failure to receive a properly mailed notice shall not affect the validity of any testimony received at the hearing or of any action taken.
- c) An affidavit(s) attesting that the notice has been properly published and/or properly mailed shall be completed and included in the application file.
- d) Costs of notification shall be the responsibility of the applicant.

3. Public Comment - The City shall not make a decision on the permit until after the end of the comment period.

- a) A thirty (30) day public comment period shall be given for shoreline permits.
- b) The public comment period shall be twenty (20) days for substantial development permits for a limited utility extension or for erosion control measures to protect a single-family residence and its appurtenant structures. (See Page A-9, Appendix A for definition of "limited utility extension.")
- c) SEPA review shall be conducted as provided by LMC Chapter 17.02 or its successor. The required SEPA notices should be included with the shoreline notices when possible. SEPA documents should be circulated with permit documents where possible.

4. Decision - After the thirty (30) day comment period has ended, the Director shall issue a decision on the application.
  - a) The Director may approve, approve with modifications, or deny any substantial development permit.
  - b) In making the decision, the Director shall consider the applicable provisions of the SMA, as amended; WAC 173-27 or its successor; the SMP; all other applicable law; and any related documents and approvals. The Director shall also consider whether the cumulative impact of additional past and future requests that reasonably may be made in accordance with the Comprehensive Plan, or similar planning document, for like actions in the area will result in substantial adverse effects on the shoreline environment and shoreline resources.
  - c) The applicant(s) shall have the burden of proving that a proposed development is consistent with the approval criteria and SMP policies and regulations. [WAC 90.58.140(7) or its successor].
  - d) The Director may require additional information if necessary.
  - e) The Director shall issue a written decision which contains the following:
    - i. A statement indicating the application is approved, approved with modifications, or denied;
    - ii. A statement of any conditions included as part of an approval or approval with modifications;
    - iii. A statement of facts upon which the decision, including any conditions, is based, and conclusions derived from those facts; and
    - iv. A statement of the right of any person to appeal the decision of the Director pursuant to section I below.
5. Distribution/notification of Administrative Decision.
  - a) The Director shall mail the applicant the original of the completed permit form and the findings and conclusions, and shall forward a copy of the same documents to *Ecology* and the Attorney General's Office as required by WAC 173-27-130 or its successor.
  - b) All persons who submitted comments on the application during the comment period (see paragraph 3 above) and anyone else requesting notification in writing, shall be notified in a timely manner of the decision and mailed a copy of the decision.

## **J. Appeals**

1. Local appeals of SSDPs (for appeal of CUPs & variances, see Section J).
  - a) The Director's decision may be appealed to the Hearing Examiner within twenty-one (21) calendar days following issuance of the decision.
  - b) Appeals shall be initiated by filing a notice of appeal with the Community Development Dept. setting forth the action being appealed and the principal points of the appeal together with a filing fee as prescribed by the Council.
  - c) If an appeal is filed, the case shall be reviewed by the Hearing Examiner at an open record hearing following the procedures of LMC 1.35.200 or its successor.
  - d) Within eight (8) days of final action by the City, including completion of appeals or expiration of appeal periods, the Director shall file copies of the action with the *Ecology* and the Attorney General.
2. Washington State Department of Ecology Appeal Period
  - a) The twenty-one (21) day appeal period begins from the "date of receipt" – the date the applicant receives the Ecology appeal period letter. Date of receipt is defined in RCW 43.21B.001 (*Ecology* sends a letter to the Director and the applicant informing them of the 21 day appeal period.)
  - b) During the appeal period, the City decision on the permit may be appealed to the Washington State Shorelines Hearings Board under RCW 90.58.180 or its successor and WAC 461-08 or its successor. Development pursuant to a shoreline permit shall not begin and is not authorized until:
    - i. Thirty (30) days from the filing date of the Hearings Board decision defined in RCW 90.58.140(5)(b &c) or its successor and WAC 173-27-090 or its successor, or;
    - ii. All review proceedings initiated within twenty-one (21) days from the filing date have been terminated, except as provided in RCW 90.58(b) or its successor.
3. Revisions to Permits
  - a) An applicant wishing to revise a permit must submit detailed plans and text describing the proposed changes. If the Director determines the proposed revisions are within the scope and intent of the original permit, consistent with WAC 173-27-100 or its successor, the Director may approve the revision.

- b) "Within the scope and intent of the original permit" means all of the following:
  - i. No additional over-water construction is involved, except that pier, dock, or float construction may be increased by five hundred (500) square feet or ten (10) percent, whichever is less;
  - ii. Ground area coverage and/or height of each building is not increased more than ten (10) percent;
  - iii. The revision does not authorize development to exceed height, setback, lot coverage, or any other requirement of the SMP;
  - iv. Additional landscaping is consistent with conditions, if any, attached to the original permit and with the SMP;
  - v. The use authorized by the original permit is not changed; and
  - vi. No adverse, environmental impact will be caused by the revision. WAC 173-27-100 (2)(a-f) as amended.
- c) If the sum of the proposed revision and any previously approved revisions do not meet the criteria above, a new shoreline permit application must be filed. If the revision involves a shoreline conditional use or variance conditioned by *Ecology*, the revision also must be reviewed and approved by *Ecology*.
- d) A City or *Ecology* decision on a permit revision may be appealed within twenty-one (21) days of such decision, in accordance with RCW 90.58.180 or its successor.
- e) Construction allowed by a revised permit, but not under the original permit is undertaken at the applicant's risk until expiration of the appeals deadline.

#### 4. Duration of Permits

- a) Substantial Progress
  - i. Substantial progress towards completion of a permitted activity shall be undertaken within two (2) years after approval of the permit. See Section 8, Appendix A for definition of "substantial progress."
  - ii. The Director may, with prior notice to parties of record and *Ecology*, grant a single one (1) year extension of the two (2) year substantial progress period based on reasonable justifying factors, including the inability to expeditiously obtain other required governmental permits. The extension request must be filed before the end of the time limit.
- b) Five Year Permit Authorization

- i. The authorization granted by an approved permit to construct any structure or conduct any use or activity shall terminate five (5) years from the date the permit is approved by the City, except that the permit may be authorized for a lesser period of fixed duration.
  - ii. Where an approved permit authorizes construction, the use and maintenance of the structure or facility may continue after the five (5) year period, provided the structure was completed during the five (5) year time limit or any approved extension.
  - iii. Where an approved permit authorizes a use or activity which does not require a structure, such as mining or maintenance dredging, the use or activity shall cease at the end of the five (5) year limit or any extension as granted in paragraph (4) below.
  - iv. The Director may, with prior notice to parties of record and *Ecology*, grant one (1) extension of up to one (1) year based on reasonable justifying factors. The extension request must be filed before the end of the time limit.
- c) The time periods shall not include time during which an activity was not actually pursued due to the pendency of reasonably related administrative appeals or litigation or other government approvals or permits as provided in WAC 173027-090(4).
  - d) When a permit is conditioned, the conditions shall be satisfied prior to occupancy or use of a structure, or prior to commencement of a nonstructural activity, provided an alternative compliance limit may be specified in the permit. Permit revisions may be authorized after expiration of the original permit under paragraph b of this section, provided this procedure shall not be used to extend the original permit time requirements. [WAC 173-27-090 or its successor].

#### **K. Shoreline Variance and Shoreline Conditional Use Permits**

This subsection applies to all applications for shoreline variances and shoreline conditional use permits. Where a development includes several uses or activities one or more of which requires a shoreline conditional use permit, all uses and activities shall be processed and decided following the shoreline conditional use procedures.

1. Shoreline variance: The purposes of a shoreline variance permit are strictly limited to granting relief to specific bulk, dimensional, or performance standards of the SMP, where there are extraordinary or unique circumstances relating to the property such that strict implementation of the SMP would impose unnecessary hardships on the applicant or thwart SMA policies as stated in RCW 90.58.020 or its successor. Variances from the SMP use and modification regulations are prohibited.

- a) Application - An application for a shoreline variance shall be submitted on a form provided by the City. The application should be accompanied by maps, a completed environmental checklist, applicable fees, and any other information specified in the SMP or requested by the Director.
- b) Criteria for Granting Shoreline variances - Shoreline variance permits for development to be located landward of the OHWM, except within wetlands may be authorized provided the applicant can demonstrate the following:
  - i. That the strict application of the bulk, dimensional, or performance standards in the applicable Master Program precludes or significantly interferes with a reasonable use of the property not otherwise prohibited by the SMP.
  - ii. The hardship described above is specifically related to the property and the result of unique conditions, such as irregular lot shape, size, natural features, and the application of the SMP, and is not, for example, from deed restrictions or the applicant's own actions.
  - iii. The design of the project will be compatible with other permitted activities in the area and will not cause adverse effects to adjacent properties or the shoreline environment.
  - iv. The shoreline variance authorized does not constitute a grant of special privilege not enjoyed by the other properties in the area and will be the minimum necessary to afford relief.
  - v. The public interest will suffer no substantial detrimental effect.
- c) Applications for shoreline variance permits when the authorized development will be located waterward of the OHWM or in wetlands may be approved or approved with conditions or modifications subject to approval by *Ecology*, if the decision maker finds the applicant has demonstrated compliance with the following criteria as well as those stated in paragraphs b and d:
  - i. Strict application of the bulk, dimensional, or performance standards in the SMP precludes all reasonable economic use of the property not otherwise prohibited by the SMP.
  - ii. Public navigation and shoreline use rights are not adversely affected.
- d) In granting shoreline variance permits, consideration shall be given to the cumulative impact of additional requests for like actions in the area. For example, if shoreline variances were granted to other developments in the area where similar circumstances exist, the totality of such variances should remain consistent with the policies of RCW 90.58 or its successor and should not produce substantial adverse shoreline environment effects.

2. Conditional Uses - The purpose of a shoreline conditional use permit is to allow greater flexibility in applying the SMP use regulations in a manner consistent with RCW 90.58.020, or its successor. Shoreline conditional use permits should also be granted in circumstances where denial of the permit would result in thwarting policy enumerated in RCW 90.58.020 or its successor. The City or *Ecology* may attach special conditions to the permit to prevent undesirable effects from the proposed use. Uses specifically prohibited by the SMP may not be authorized by a shoreline conditional use permit. In granting conditional use permits consideration shall be given to the cumulative impacts of additional requests for like actions in the area.

- a) Uses classified as conditional uses may be authorized provided the applicant can demonstrate all the following:
  - i. The proposed use will be consistent with the policies of RCW 90.58.020 or its successor and the policies of the SMP.
  - ii. The proposed use will not interfere with the normal public use of the shorelines.
  - iii. The proposed use of the site and design of the project will be compatible with other permitted uses in the area.
  - iv. The proposed use will not cause unreasonable adverse effects to the shoreline environment designation in which it is located.
  - v. There will be no substantial detrimental effect to the public interest.
  - vi. The proposed use is consistent with the Lynnwood Zoning Ordinance (LMC Title 21) and Comprehensive Plan.
- b) Uses not listed as permitted or conditionally permitted in the SMP, but not prohibited may be authorized as conditional uses provided the applicant in addition to the criteria set forth in 2a above demonstrates that
  - i. Extraordinary circumstances preclude reasonable economic use of the property in a manner consistent with RCW 90.58.020, or its successor, and
  - ii. The proposed use would not produce significant adverse effects on the shoreline environment.

3. If the Director determines that a shoreline variance permit application is minor in its potential impacts, the Director shall decide the application following the procedures in Section H above Shoreline Substantial Development Permit Process, under 1. The Director's decision is subject to *Ecology* approval as stated in paragraph 7 below. A shoreline variance shall be considered minor if it meets the following criteria:

- a) Projects of relatively small scale;

- b) Projects involving only one property; or
  - c) Projects which have not generated significant public input.
4. Applications for shoreline variances not determined to be minor and all shoreline conditional use permits shall be decided by the Hearing Examiner upon holding an open record public hearing.
- a) The Director shall prepare a staff report identifying the approval criteria, providing available information on the application, analyzing the proposal, making a recommendation on the proposal, making recommended findings of fact and conclusions of law, and including any other information or recommendations the Director finds appropriate. The Director shall provide a copy of the staff report to the applicant and the Hearing Examiner.
  - b) In making a decision, the Hearing Examiner shall consider the applicable criteria in 1 and 2 above. The applicant has the burden of proof to show that the proposal complies with the decision criteria and all applicable requirements. [RCW 90.58.140(7) or its successor].
  - c) The Hearing Examiner may attach conditions of approval to permits as necessary to assure consistency of the proposal with the approval criteria.
  - d) There is no local appeal of the Hearing Examiner's decision on shoreline variances and conditional use permits.
5. The Director shall mail the final City decision to the applicant, *Ecology*, and the Attorney General. The permit must be received by *Ecology* within eight (8) days of the date of the decision. Within eight (8) days, the Director shall also mail the decision to any person requesting notice of the decision.
6. *Ecology* shall approve, approve with conditions, or deny all shoreline variance and shoreline conditional use permits approved by the City. *Ecology's* decision must be made within thirty (30) days of the date the permit and other information required by WAC 173-27-130 or its successor are received by *Ecology* and the Attorney General. *Ecology* will send a letter to the applicant and the City informing them of the decision. Up receipt of the *Ecology* decision, the Director shall notify persons requesting such.
7. Twenty-one Day Appeal Period
- a) If the permit or shoreline variance was denied by the City, the twenty-one (21) day appeal period begins the day the applicant receives the denied permit or shoreline variance and other information required by WAC 173-27-130 or its successor. *Ecology* usually sends an appeal period letter to the Director and the applicant

- b) If the permit or shoreline variance was approved by the local government, the twenty-one (21) day appeal period begins from the "date of receipt" – the date the applicant receives the Ecology appeal period letter. Date of receipt is defined in RCW.
- c) During the appeal period, the City and/or *Ecology* decision may be appealed to the Washington State Shorelines Hearings Board as provided by RCW 90.58.180 or its successor. Construction, development, or any authorized use or activity shall not begin until after the twenty-one (21) day appeal period, or until such review is terminated except as described in RCW 90. 58.140(5). Note RCW 90.58.140(5) b is required in full to explain

### **L. Nonconforming Development**

#### Applicability:

This section applies to shoreline uses or structures lawfully constructed or established prior to the effective date of the SMP, but which do not conform to present regulations or standards of the SMP or policies of the SMA.

Nonconforming uses and developments may be continued provided they meet the following provisions:

1. Nonconforming Uses
  - a) Nonconforming uses shall not be altered or expanded in any way that increases the nonconformity.
  - b) If a nonconforming use is discontinued for twelve (12) consecutive months or for 12 months in any two (2) year period, any subsequent use shall conform.
  - c) A nonconforming use can change to another nonconforming use with a CUP if:
    - i. It meets the criteria of WAC 173-27-080(6)(a) & (b); 2
    - ii. No reasonable alternative conforming use is practical, and;
    - iii. The proposed use is consistent with the SMA and SMP and compatible with other uses in the area.
2. Nonconforming Structures
  - a) Enlargement or expansion of a structure cannot increase the extent of nonconformity by further encroaching upon or extending into areas where construction or use would not be allowed for new development or use. Repair, reconstruction, and expansion of nonconforming structures which does not increase the nonconformity shall be permitted.

- b) Permitted expansion of a nonconforming structure shall not obstruct existing views of the water from primary waterfront residences or public rights-of-way to any greater degree than a fully conforming structure.
- c) If a nonconforming development is damaged to an extent not exceeding seventy-five percent of the replacement cost of the original development, it may be reconstructed to those configurations existing immediately prior to the time the development was damaged, provided that application is made for the permits necessary to restore the development within six months of the date the damage occurred, all permits are obtained and the restoration is completed within two years of permit issuance (WAC 173-27-080 (8)).

### **M. Master Program Review**

The Shoreline Master Program and Restoration Plan shall be periodically reviewed by the Director and City Council and adjustments made as necessary to reflect changing local circumstances, new information or improved data, and/or changes in State statutes and regulations. This review process shall be consistent with RCW 90.58.080 (4) and shall include a local citizen involvement effort and public hearings to obtain the views and comments of the public. Consistent with the aforementioned statute, a Shoreline Master Program Review shall be undertaken at least once every seven years.

### **N. Amendments to Master Program**

The provisions of the SMP may be amended as provided in RCW 90.58.120, 90.58.200 or its successor and WAC 173-26 or its successor. Any person, including the City, may submit an application for an amendment to the Director together with any required fee. Any SMP amendment must satisfy the requirements of the State Environmental Policy Act (Chapter 43.21C RCW or its successor).

The City Council shall approve, modify, or deny an application for an amendment after conducting at least one public hearing considering the proposal. The City shall publish notice of the hearing at least once in each of the three (3) weeks immediately preceding the hearing in one or more newspapers of general circulation in the area within the jurisdiction of the SMP. The notice shall include:

1. Reference to the authority under which the action is proposed;
2. A statement or summary of the proposed changes to the SMP;
3. The date, time, and location of the hearing, and the manner in which interested persons may present their views; and
4. Reference to the availability of the proposal for public inspection at the local government office, or upon request.

Amendments and revisions to the SMP are not effective unless approved by the *Ecology*.

Proponents of shoreline environment redesignations (i.e., amendments to the shoreline maps and descriptions) have the burden of demonstrating consistency with the shoreline environment designation criteria of the SMP.

The Director shall send a copy of any locally approved amendment and the information required by WAC 173-26-062 or its successor to *Ecology* within fourteen (14) days of the date of the City's decision. If *Ecology* denies or modifies the proposed amendment, the City may appeal the decision to the *Growth Management Hearings Board* as provided in RCW 90.58.190.

#### **O. Severability**

If any provision of the Shoreline Master Program, or its application to any person, legal entity, parcel of land or circumstances is held invalid, the remainder of the SMP and application of its provisions to other persons, legal entities, parcels of land or circumstances, shall not be affected.

#### **P. Inspections**

Whenever it is necessary to make an inspection to enforce any provision of this ordinance or whenever the Director has reasonable cause to believe that there exists in any building, or upon any premises, any condition which makes such a building or premises nonconforming, the Director or his designee may enter such building or premises. If the building or premises is occupied, the Director or designee shall present proper credentials and request entry. If the building or premises is unoccupied, the Director shall make reasonable efforts to locate the owner or other persons having charge or control of the building or premises and request entry. If entry is refused, the Director shall have recourse to every remedy provided by law to secure entry, including administrative search warrant.

#### **Q. Enforcement**

Enforcement of this Shoreline Master Program shall be in accordance with the provisions of LMC 1.40, Code Violations, except that penalties cannot exceed \$1,000 per violation.

# Appendix A

## Definitions and Acronyms

**Accessory Dwelling Unit** - Separate living quarters contained within, or detached from, a single-family dwelling on a single lot; provided no recreational vehicle shall be an accessory dwelling unit.

**Accessory Building or Structure** - A subordinate building or structure incidental to the principal building or structure on the same lot. Accessory dwelling units are not considered accessory buildings or structures.

**Accessory Use** - A use that is customarily incidental and related to the principal use.

**Accretion** - The growth of a beach by the addition of material transported by wind and/or water. Included are such shoreforms as barrier beaches, points, spits, hooks, and tombolos.

**Act** - The Shoreline Management Act, Chapter 90.58 RCW or its successor.

**Adjacent Lands** - Lands adjacent to the shorelines of the state (outside of shoreline jurisdiction). The Shoreline Management Act directs local governments to develop land use controls (i.e., zoning, etc.) for such lands consistent with the policies of the Shoreline Management Act, related rules, and the local master program. See RCW 90.58.340 or its successor.

**Administrator** - Director of the Department of Planning and Community Development, or designee, charged with responsibility for administering the Shoreline Master Program.

**Agriculture** - See Lynnwood Municipal Code (LMC) Title 21.

**Anadromous Fish** - Species such as salmon, which are born in fresh water, spend a large part of their lives in the sea, and return to fresh water rivers and streams to procreate.

**Applicant** - An individual, partnership, corporation, association, organization, cooperative, public or municipal corporation, or agency of the state or local governmental unit, however designated [RCW 90.58.030(1d) or its successor].

**Appurtenance** - A structure or development necessarily connected to the use and enjoyment of a single-family residence. "Normal appurtenance" means a garage, boat house, deck, driveway, utilities, fences, and grading not exceeding two hundred fifty (250) cubic yards, except to construct a conventional drainfield [WAC 173-4-040(lg) or its successor]. Appurtenances must be landward of the ordinary high water mark (OHWM) and the perimeter of marshes, bogs, and swamps.

**Aquaculture**- The cultivation of fish, shellfish, and/or other aquatic animals or plants, including the harvesting and incidental preparation of these products for human use. Activities include hatching, cultivating, planting, feeding, raising and harvesting aquatic plants and animals, and constructing and maintaining necessary equipment, buildings, and growing areas. Cultivation methods include, but are not limited to, fish pens, shellfish rafts, racks and long lines, seaweed floats and nets, and the culture of clams and oysters on tidelands and subtidal areas.

**Archaeological** - Having to do with the scientific study of material remains of past human life and activities.

**Average Grade Level** - The average of the natural or existing topography of the portion of the lot, parcel, or tract of real property directly under the proposed building or structure. In the case of structures built over water, average grade level shall be the ordinary high water level. Calculation of the average grade level shall be made by averaging the elevations at the center of all exterior walls of the proposed building or structure. Note: This definition of "average grade level" differs from the definition in the City of Lynnwood Zoning Code (Chapter 21 of the City of Lynnwood Municipal Code). Structures within shoreline jurisdiction shall comply with the definition contained herein.

**Backshore** - The accretion or erosion zone, located landward of the line of ordinary high tide, which is normally wetted only by storm tides. A backshore may take the form of a more or less narrow storm berm (ridge of wave-heaped sand and/or gravel) under a bluff, or it may constitute a broader complex of berms, marshes, meadows, or dunes landward of the line of ordinary high water. It is part of the littoral drift process along its seaward boundary.

**Backshore marina** - See Marina.

**Beach** - The zone of unconsolidated material that is moved by waves, wind, and tidal currents, extending landward to the coastline.

**Beach Enhancement/Restoration** - The process of restoring a beach to a state more closely resembling a natural beach using beach feeding, vegetation, drift sills, and other non-intrusive means, as applicable.

**Beach Feeding** - The process of replenishing a beach by delivery of materials dredged or excavated elsewhere.

**Beach Scarp** - A steep slope produced by wave erosion.

**Benthic Organisms** - Organisms that live in or on the bottom of a body of water.

**Berm** - A linear mound, or series of mounds, of sand and/or gravel generally paralleling the water at, or landward of the line of ordinary high tide. Also, a linear mound used to screen an adjacent activity, such as a parking lot, from transmitting excess noise and glare.

**Best Available Technology** - The most effective method, technique, or product available, generally accepted in the field, and demonstrated to be reliable, effective, and (preferably) low maintenance.

**Best Management Practice (BMP)** - See LMC Title 17.

**Biofiltration System** - A stormwater or other drainage treatment system that utilizes the ability of plant life to screen out and metabolize sediment and pollutants as a primary feature. Typically, biofiltration systems are designed to include grassy swales, retention ponds, and other vegetative features.

**Biota** - The animals and plants that live in a particular location or region.

**BMP** - see Best Management Practices.

**BNSF** - Burlington Northern Santa Fe Railroad (right-of-way within Lynnwood shoreline jurisdiction)

**Boat House** - An upland building used primarily for boat storage.

**Boat Launch or Ramp** - Graded slopes, slabs, pads, planks, or rails used for launching boats by means of a trailer, hand, or mechanical device.

**Boating Facilities** - Includes marinas, boat launch facilities, dry storage facilities, marine travel lifts, and marine railways.

**Breakwater** - Offshore structure, usually aligned parallel to shore, sometimes shore-connected, that provides protection from waves.

**Buffer** - A parcel or area of land that is designed and designated to permanently remain vegetated in an undisturbed and natural condition to protect an adjacent aquatic or wetland area from upland impacts and to provide habitat for wildlife. The "native vegetation zone" is a buffer protecting the ecology and resources of Puget Sound. A buffer may be used to protect any sensitive area.

**Building** - Any structure having a roof, designated for shelter of persons, animals or property.

**Bulkhead** - A solid or open pile wall erected generally parallel to and near the ordinary high water mark to protect adjacent uplands from waves or current action. Bulkheads may be built of posts and timbers, concrete, large rocks (riprap), or other materials. The normal purpose of a bulkhead is to protect land from erosion, not to create land. It is essentially a vertical structure (differentiated from a revetment, which slopes) that absorbs some of the wave energy.

**Channel** - An open conduit for water, either naturally or artificially created, but not including artificially created irrigation, return flow, or stock watering channels. See also Stream.

**City** - The City of Lynnwood.

**Clean Water Act** - The primary federal law providing water pollution prevention and control. This was previously known as the Federal Water Pollution Control Act. (See 33 USC 1251 et seq.)

**Clearing** - An activity associated with property modification or maintenance. Clearing means the destruction or removal of vegetative ground cover and/or trees including, but not limited to, root material removal and/or topsoil material.

**Coastline** - The line where terrestrial processes give way to marine processes - tidal currents, wind waves, etc.

**Community Structure** - A building, dock, or other structure intended for the common use of the residents of a particular subdivision or community. It is not intended to serve as a public facility.

**Community or Joint-use Dock** - A structure or structures intended for the common use of the residents of adjoining parcels or subdivision, short subdivision or community located on adjacent uplands. A community dock is not for the purpose of serving the public. If a community dock accommodates six (6) or more vessels, it is considered a marina.

**Conditional Use** - A use or expansion of a use permitted on shorelines which, because of certain characteristics, requires a special degree of control to make it consistent with the intent and provisions of the Act and these regulations, and compatible with other uses permitted on shorelines.

**Conditional Use Permit** - Local governments are authorized under the Shoreline Management Act to include provisions for authorizing land uses and developments that may be permitted by Conditional Use

permits (CUP). The purpose of the Conditional Use permit is to allow greater flexibility in varying the application of the use regulations of the Master Program.

**Council** - Legislative body of the City of Lynnwood.

**Covered Moorage** - Boat moorage, with or without walls, that has a roof to protect a vessel or vessels.

**CUP** - see Conditional Use Permit

**Day** - Means a calendar day beginning at midnight and ending on the following midnight. When counting the number of days for notices required by the Master Program, the day a notice is mailed, posted, or published is not counted, but the day of any hearing is counted. The day of the hearing shall be counted as an entire day, even though the hearing takes place before midnight and an entire twenty-four hour period has not passed. When counting the number of days or years for other time limits established by this title, the day a decision is made is not counted in computing the time limit.

**Degrade** - To scale down in desirability or salability, to impair in respect to some physical property, or to reduce in structure or function.

**Department** - The City of Lynnwood Community Development Department.

**Development** - A use consisting of the construction or exterior alteration of structures; dredging; drilling; dumping; filling; removal of any sand, gravel, or minerals; bulkheading; pile driving; placing of obstructions; or any project of a permanent or temporary nature which interferes with the normal public use of the surface of the waters of the state, subject to Chapter 90.58 RCW or its successor, at any state of water level [RCW 90.58.030(3d) or its successor].

**DFW** - Washington State Department of Fish and Wildlife

**Director** - The director of the department.

**Dock** - A floating platform which abuts the shoreline, extending waterward from ordinary high water, or from the bottom of a ramp extending from a pier, generally used as a landing or moorage place for commercial and/or pleasure craft.

**DoE** - Washington State Department of Ecology - see "Ecology"

**DNR** - Washington State Department of Natural Resources

**Dredge Spoil** - The material removed by dredging. Same as dredge material.

**Dredged Material Disposal** - Depositing dredged materials on land or into water bodies. The purpose may be to create additional lands, to dispose of dredging by-products, or to enhance or remedy an environmental condition.

**Dredging** - Removal or displacement of earth or sediments such as gravel, sand, mud or silt, and/or other materials or debris from any stream, river, lake or marine water body, and associated shorelines and wetlands. Dredging is normally done for specific purposes or uses such as constructing and maintaining navigation channels, turning basins, harbors and marinas; installing submarine pipelines or cable crossing; or repairing and maintaining dikes or drainage systems. 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 or cleanup of polluted sediments.

**Drift Sector** - A particular reach of marine shore in which littoral drift may occur without significant interruption, and which contains any and all natural sources of such drift as well as any shoreform(s) accreted by such drift. Each normal drift sector contains these shore process elements: feeder bluff or estuary, driftway, littoral drift, and accretion shoreform.

**Drift Sills** - Small groins that hold sediments in place without blocking longshore drift.

**Driftway** - That portion of the shore process corridor, primarily the lower backshore and the upper intertidal area, through which sand and gravel are transported by the littoral drift process. It is the critical link between the feeder bluff and the accretion shoreform.

**Dune** - A hill or ridge of sand piled up by the wind and/or wave action.

**Ecology** – A broad biological science that can be divided into many sub-disciplines using various criteria. For example, one such categorization, based on overall complexity (from the least complex to the most), is: *Behavioral ecology*, which studies the ecological and evolutionary basis for animal behavior, focusing largely at the level of the individual; *Population ecology* (or autecology), which deals with the dynamics of populations within species, and the interactions of these populations with environmental factors; *Community ecology* (or synecology) which studies the interactions between species within an ecological community; *Ecosystems ecology*, which studies how flows of energy and matter interact with biotic elements of ecosystems.

**Ecology (Washington State Department of Ecology)** - Use of "Ecology" or "Washington State Department of Ecology" is preferred over "DOE" to avoid confusing the Washington State Department of Ecology with the federal Department of Energy.

**Ecological Functions (or Shoreline Functions)** – Means the work performed or role played by the physical, chemical, and biological processes that contribute to the maintenance of the aquatic and terrestrial environments that constitute the shoreline's natural ecosystem. See WAC 173-26-200 (2)(c).

**Ecosystem** – A combination of all living and non-living elements of an area. Ecosystems are the smallest level of organization in nature that incorporates both living and non-living factors. They can range in scale from a wide geographical area such as the Sahara Desert to something as small as a puddle. The term microecosystem may be used to describe a very small (often closed) ecosystem.

**Ecosystem ecology** – The study of the movement of energy and matter through ecosystems. It is one of the fundamental disciplines of ecology. Ecosystem ecology operates at a scale above that of communities but it is defined more by subject matter than scale. The discipline deals with locally defined ecosystems which exchange matter and energy with their surroundings. The discipline concerns itself with such areas as nutrient cycling (especially carbon, nitrogen, and phosphorus cycles), Gross Primary Productivity (GPP) and Net Primary Productivity (NPP), trophic dynamics and food chains.

**Ecosystem-wide Processes** – Means the suite of naturally occurring physical and geological processes of erosion, transport, and deposition; and specific chemical processes that shape landforms within a specific shoreline ecosystem and determine both the types of habitat and associated ecological functions.

**Ecotope** – The smallest ecologically distinct landscape features in a landscape mapping and classification system. As such, they represent relatively homogeneous, spatially-explicit landscape units useful for

stratifying landscapes into ecologically distinct features for the measurement and mapping of landscape structure, function, and change.

**Emergency** - 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 necessary to protect property from the elements [RCW 90.58.030(3eiii) or its successor].

**Enhancement** - Alteration of an existing wetland or habitat to improve or increase its characteristics and processes without degrading other existing functions. Enhancements are distinguished from wetland/habitat creation or restoration projects.

**Envelope** - The enclosing shell of a building's volume.

**Environmentally Critical Areas** - Areas with especially fragile biophysical characteristics and/or with significant environmental resources as identified by the City or by 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, aquifer recharge areas; wildlife habitat areas; fish breeding; rearing or feeding areas; frequently flooded areas; geologically hazardous areas (e.g., steep, unstable slopes); wetlands; streams; tidal lagoons; mud flats; salt marshes; and marine vegetation areas.

**Erosion** - The wearing away of land by the action of natural forces.

**Estuary** - The zone in which fresh and salt water mingle and affect the total land and water habitat.

**Estuarine Zone, Estuary** - The zero-gradient sector of a stream where it flows into a standing body of water, together with associated wetlands. Tidal flows reverse flow in this zone twice daily, determining its upstream limit. It is characterized by low bank channels branching off the main streamway to form a broad, near-level delta. The bank, bed, and delta materials are typically silt and clay. Banks are stable, with vegetation ranging from marsh to forest, and the water is usually brackish due to daily mixing and layering of fresh and salt water. Estuarine shores are rich in aquatic and other bird and animal life, and in their natural condition are the most productive of all shoreline habitats of the marine food chain.

**Exemption** - Certain developments are exempt from the definition of substantial developments and, therefore, from the substantial development permit process of the Shoreline Management Act. An activity exempt from the substantial development provisions of the Shoreline Management Act must still be carried out in compliance with the policies and standards of the Act and the local master program. Conditional use and/or Variance permits may be required even if the activity does not need a substantial development permit. [RCW 90.58.030(3e) or its successor].

**Extreme Low Tide** - The lowest line on the land reached by a receding tide [RCW 90.58.030(2a) or its successor]. For the purposes of the Shoreline Master Program, it is the contour 4.5 feet below Mean Lower Low Water (datum plane 0.0). [WAC 332-30-106 (18) or its successor].

**Fair Market Value** - Of a development is the open market bid price for conducting the work, using the equipment and facilities, and purchase of the goods, services and materials necessary to accomplish the development. This would normally equate to the cost of hiring a contractor to undertake the development from start to finish, including the cost of labor, materials, equipment and facility usage, transportation and contractor overhead and profit. The fair market value of the development shall include the fair market value of any donated, contributed or found labor, equipment or materials.

**Feeder Bluff, Erosional Bluff** - Any bluff (or cliff) experiencing periodic erosion from waves, sliding, or slumping, whose eroded earth, sand, or gravel material is naturally transported (littoral drift) via a driftway to an accretion shoreform. These natural sources of beach material are limited and vital for the long-term stability of driftways and accretion shoreforms.

**Fill** – Means the addition of soil, sand, rock, gravel, sediment, earth retaining structure, or other material to an area waterward of the OHWM, in wetlands, or on shorelands in a manner that raises the elevation or creates dry land.

**Floating Home** - A non-vessel structure designed and operated substantially as a permanent over-water residence. Floating homes lack adequate self-propulsion and steering equipment to operate as a vessel. They are typically served by permanent utilities and semi-permanent anchorage/moorage facilities.

**Flood Hazard Management** - A program or major project carried out on a single parcel or coordinated on a series of parcels for the primary purpose of preventing or mitigating damage due to flooding. Flood hazard management projects or programs may employ physical and/or regulatory controls.

**Floodplain** - Synonymous with one hundred-year floodplain, this is that land area susceptible to being inundated by stream-derived waters with a one 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 Shoreline Management Act.

**Floodway** - Those portions of the area of a river valley lying streamward from the outer limits of a watercourse, and upon which flood waters are carried during periods of flooding that occur with reasonable regularity, though not necessarily annually. The floodway is identified, under normal conditions, by changes in surface soil conditions, or changes in types or quality of vegetative ground cover conditions. The floodway does not include lands that can reasonably be expected to be protected from flood waters by flood control devices maintained by or 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 that meets the objectives of the Shoreline Management Act.

**Foreshore** - In general terms, the beach between mean higher high water and mean lower low water.

**Foreshore Marina** - See Marina.

**Forest Practice** - Any activity conducted on, or directly related to, forest land and relating to growing, harvesting, or processing timber. This includes: 1) site preparation and regeneration, 2) protection from insects, fire, and disease, 3) silvicultural practices such as thinning, fertilization, and release from competing vegetation, and 4) harvesting. Forest practices do not include log storage. (See industrial use.) These activities include, but are not limited to, road and trail construction, final and intermediate harvesting, pre-commercial thinning, reforestation, fertilization, prevention and suppression of disease and insects, salvage of trees, and brush control. See WAC 222-16-010(21) or its successor.

**Forest Land** - Land capable of supporting merchantable stands of timber, and not being actively used in a way incompatible with timber growing. [WAC 222-16-010 or its successor].

**Gabions** - Structures of masses of rocks, rubble, or masonry held tightly together, usually by wire mesh, to form blocks or walls. Sometimes used on heavy erosion areas to retard wave action, or as foundations for breakwaters or jetties.

**Geotechnical Report or Geotechnical Analysis** – Means a scientific study or evaluation conducted by a qualified expert that includes a description of the ground and surface hydrology and geology, the affected land form and its susceptibility to mass wasting, erosion, and other geologic hazards or processes, conclusions and recommendations regarding the effect of a proposed development on geologic conditions, the adequacy of the site for development, the impacts of the proposed development, alternative approaches to the proposed development, and measures to mitigate potential site-specific and cumulative geological and hydrological impacts of a proposed development, including potential adverse impacts to adjacent and down-current properties. Geotechnical reports shall conform to accepted technical standards and must be prepared by qualified professional engineers or geologists who have professional expertise about the regional and local shoreline geology and processes.

**GMA** - Washington Growth Management Act (Chapter 36.70A RCW)

**Grading** – The movement or redistribution of soil, sand, rock, gravel, sediment, or other material on a site in a manner altering the natural contour of the land.

**Grassy Swale** - A vegetated drainage channel designed to remove various pollutants from storm water runoff through biofiltration.

**Groin** - A barrier-type structure extending from the backshore or streambank into a water body, generally perpendicular to the shore, to protect a shoreline and adjacent upland by influencing the movement of water and/or deposition of materials - also referred to as a spur dyke or rock weir.

**Habitat** - The place or type of site where a plant or animal naturally or normally lives and grows.

**Height** - The distance from the average grade level to the highest point of a structure. Television antennas, chimneys, and similar structures or appurtenances are not used in calculating height except where they obstruct the view of residences adjoining such shorelines. Temporary construction equipment is excluded in this calculation. For over-water structures, height is measured from the ordinary high water mark.

**Hook** - A spit or narrow cape of sand or gravel that turns landward at its outer end.

**Houseboat** - A particular type of vessel licensed and designed for use as a mobile structure with adequate self-propulsion and steering equipment to be operated as a vessel, but also characterized by detachable utilities or facilities for residential use. When principally used as an over-water residence, it is a "live-aboard vessel."

**HPA** - Hydraulic Project Approval. The permit issued by the Washington State Department of Fish and Wildlife pursuant to the State Hydraulic Code Chapter 75.20.100-140 RCW or its successor.

**Hydric Soils** - Hydric soil means soil that is saturated, flooded, or ponded long enough to develop anaerobic conditions in the upper part. The presence of hydric soil shall be determined by following the methods described in the Washington State Wetland Identification and Delineation Manual, or as revised.

**Hydrophytes** - Hydrophytic vegetation means macrophytic plant life growing in water or on a substrate at least periodically deficient in oxygen as a result of excessive water content. The presence of hydrophytic vegetation shall be determined following the methods described in the Washington State Wetland Identification and Delineation Manual, or as revised.

**Industrial Use** - Uses intended primarily to provide for ship and boat building, haul out and repair and related uses serving boating needs.

**In-kind** - Replacing wetlands, biota or other organisms with substitute flora or fauna whose characteristics closely match those destroyed, displaced, or degraded by an activity.

**Intertidal** - 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 sometimes submerged, but sometimes exposed to air. (Source: M.N.Dethier, A Marine and Estuarine Habitat Classification System for Washington State 10 [Washington State Department of Natural Resources, Washington Natural Heritage Program, 1990].

**Jetty** - A structure projecting out into the sea at the mouth of a river for the purpose of protecting a navigation channel or harbor, or to influence water currents.

**Lagoon** - See Tidal Lagoon.

**Landscape ecology** – A subdiscipline of ecology and geography that is the study of spatial variation and one interested in landscape elements (such as fields, hedgerows, woodlots, rivers, or towns) and how their distribution affects the distribution and flow of energy and individuals in the environment (which, in turn, may influence the distribution of the elements themselves). Landscape ecology typically deals with problems in an applied and holistic context.

**Levee** - A large dike or embankment, often having an access road along the top, designed as part of a system to protect land from floods.

**Limited Utility Extension** - The extension of natural gas, electricity, telephone, water, or sewer service where all of the following are met: 1) the extension is categorically exempt under the Washington State Environmental Policy Act (SEPA)(See WAC 197-11-800(24 or its successor) for utility improvements categorically exempt under SEPA), 2) the extension will serve existing uses in compliance with the Act, and 3) the project does not involve construction of more than 2,500 linear feet of utility lines or pipes within shoreline jurisdiction.

**Littoral** - Living on, or occurring on, the shore.

**Littoral Drift** - The movement of mud, sand, or gravel material parallel to the shoreline in the nearshore zone by waves and currents.

**Live-aboard Vessel** - A vessel licensed and designed for use as a mobile structure with adequate self-propulsion and steering equipment to be operated as a vessel, but principally used as an over-water residence. Principal use as an over-water residence means essentially full-time occupancy within the City's jurisdiction for a total of more than sixty (60) days, consecutive or not, in any calendar year.

**LMC** – Lynnwood Municipal Code.

**Marina** - A commercial or public facility primarily to provide moorage for six (6) or more vessels, which consists of a system of piers, buoys, or floats. Foreshore marinas are located in the intertidal or offshore zone (the Aquatic environment). Backshore marinas are landward of the OHWM. There are two common types of backshore marinas, one with wet moorage dredged out of the land to artificially create a basin, and the other, dry moorage, with upland storage and a hoist, marine travel lift, or ramp for water access.

**Marine Travel Lift** - A mechanical device to hoist vessels off trailers and transport them into the water. Often associated with dry land moorage.

**Marine Railway** - A set of rails running from an upland area into the water upon which a cart or dolly can carry a boat to be launched.

**Mean Higher High Tide (MHHT)** - The plane of the arithmetic mean of the higher of two (2) daily high tides calculated from the most recent 19-year tidal cycle.

**Mean Low Water (MLW)** - The plane of the arithmetic mean of all low tides calculated from the most recent 19-year tidal cycle.

**Mean Lower Low Water (MLLW)** - The plane of the arithmetic mean of the lower of two (2) daily low tides calculated from the most recent 19-year tidal cycle (datum plane 0.0).

**Midden** - An ancient refuse heap. Often a source of archaeological material.

**Mining** - Removal and primary processing of naturally occurring materials from the earth for economic use. "Processing" includes screening, crushing, stockpiling - all of which utilize materials removed from the site where the processing activity is located. Processing does not include the manufacture of molded or cast concrete, or asphalt products, asphalt mixing operations, or concrete batching operations.

**Mooring Buoy** - A floating object anchored to the bottom of a water body providing vessel tie-up capability.

**Muds** - Sediments with particle size smaller than 1/16 mm. For sediments in a tidal inlet to be classified as critical habitat, they must contain at least 30% (by weight) mud (i.e., 30% of the sediments have to pass through a 1/16 mm mesh sieve).

**Multi-family Dwelling or Residence** - A building containing two or more dwelling units including, but not limited to, duplexes, apartments, and condominiums.

**Natural Riparian Habitat Corridor** - The streamside environment maintained in its natural state, primarily for fisheries and wildlife habitat, and water quality improvement, and, secondarily, for flood control works, while allowing controlled access to avoid damage to the resource.

**Native Vegetation Zone** - A required vegetation buffer measured horizontally upland from and perpendicular to the ordinary high water mark (OHWM).

**Nonconforming Use or Development** - A shoreline use or development lawfully constructed or established prior to the effective date of the Act or the SMP, or amendments thereto, but which does not conform to present program regulations or standards. [WAC 173-27-080(1) or its successor].

**Nonwater-oriented** - Uses with little or no relationship to the shoreline and not considered priority uses under the Act. Nonwater-oriented uses are not water-dependent, water-related, or water-enjoyment uses.

**Normal appurtenance** - See Appurtenance.

**Normal Maintenance** - Those usual acts to prevent the decline, lapse, or cessation of a lawfully established condition. [WAC 173-27-040(2b) or its successor]. (See Normal Repair.)

**Normal Protective Bulkhead** - See Bulkhead.

**Normal Repair** - To restore a development to a state comparable to its original condition within a reasonable period after decay or partial destruction, except where repair involves total replacement when that is not a common repair method for the type of structure or development, or causes substantial adverse effects to the shoreline resource or environment. [WAC 173-27-040(2b) or its successor]. (See Normal Maintenance.)

**OHW, Ordinary High Water Mark** - A mark 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 ordinary years, that the soil has a character distinct from the abutting upland in respect to vegetation as that condition existed on June 1, 1971, as it may naturally change thereafter, or may change thereafter in accordance with permits issued by the City or Washington State Department of Ecology. In any area the ordinary high water mark cannot be found, the ordinary high water mark adjoining salt water shall be the line of mean higher high tide and the ordinary high water mark adjoining fresh water shall be the line of mean high water. [See RCW 90.58.030(2)(b) or its successor].

**Oil/Water Separator** - Specialized catch basins designed to trap oil and other lighter than water materials in the basin while allowing water to escape through the drainage system.

**Open Space** -See LMC Title 21.

**Parking** - The temporary storage of automobiles or other motorized vehicles.

**Periodic** - Occurring at regular intervals.

**Person(s)** - Includes organizations and corporations.

**Point** - A low profile, more or less triangular shoreline promontory, the top of which extends seaward.

**Pier** - A fixed platform above the water which abuts the shoreline, and extends waterward from ordinary high water, generally used as a landing or moorage place for watercraft.

**Principal Building, Adjacent** - A principal building located on a lot abutting an applicant's lot.

**PSDDA** - Puget Sound Dredged Disposal Analysis (see Section 6.D)

**RCW** - Revised Code of Washington.

**Recreation** - Refreshment of body and mind through play, sports, relaxation, amusement or contemplation.

**Recreational Development, Active** - activities generally requiring use of constructed facilities such as playgrounds, athletic fields, boat ramps, and marinas.

**Recreational Development, Passive** - activities requiring minimal constructed facilities such as swimming, picnicking, hiking, canoeing and fishing.

**Recreational Floats** - Anchored off-shore platforms for water-dependent recreational activities such as swimming and diving.

**Replacement Area** - An area of replacement native vegetation compensating for disturbance of part of the required Native Vegetation Zone. (See Section III.E. regulations 10 and 11 for requirements to allow for such disturbance.)

**Residential Development** - Construction or alteration of one or more buildings, structures, or portions thereof designed for and used to provide a dwelling place for human beings. This includes single and multi-family dwellings, accessory uses, and structures normally associated with residential uses and structures. Residential development includes land divisions, including short plats, of residentially zoned land. It also includes modifications to land and vegetation associated with construction, preparation, or maintenance of residential structures or accessory structures.

**Restoration** - To revitalize or reestablish the characteristics and natural processes of a degraded shoreline resource.

**Revetment** - A sloping structure built to protect a scarp, embankment, or shore against erosion by waves or currents. Usually built of riprap, with a heavy armor layer, one or more filter layers of smaller rock or filter cloth, and "toe" protection. A revetment slopes shoreward and has a rough or jagged facing. Its sloping face absorbs wave energy and differentiates it from a bulkhead, which is a vertical structure.

**Riparian** - Of, on, or pertaining to the banks of a river.

**Riparian Management Zone** - A specified area alongside a shoreline where the Forest Practice Regulations sets out specific measures to protect water quality and fish and wildlife habitat. [WAC 222-30 or its successor].

**Riprap** - A layer, facing, or protective mound of stones placed to prevent erosion, scouring, or sloughing of a structure or embankment.

**Rock Weir** - See Groin.

**Runoff** - Water not absorbed into the soil, but rather flowing along the ground surface following the topography.

**Salmon and Steelhead Habitats** - Gravel bottom streams, creeks, and rivers used for spawning; streams, creeks, rivers, side channels, ponds, lakes, and wetlands used for rearing, feeding, cover and refuge from predators and high water; streams creeks, rivers, estuaries, and shallow areas of saltwater bodies used as migration corridors; and salt water bodies used for rearing, feeding, and refuge from predators and currents.

**Salt Tolerant Vegetation** - Vegetation tolerant of interstitial soil salinities greater than or equal to 0.5 parts per thousand.

**Scarification** - Loosening topsoil and/or disrupting forest floor in preparation for regeneration.

**SDP/SSDP** - see Shoreline Substantial Development Permit

**Seawall** - Structure separating land and water areas primarily to prevent erosion and wave damage; Generally more massive and capable of resisting greater wave forces than a bulkhead or revetment.

**Seaward** - To or toward the Puget Sound.

**Sediment** - Material deposited by water or wind.

**SEPA** - Washington State Environmental Policy Act (Chapter 43.21C RCW)

**Setback** - The required horizontal distance from the ordinary high water mark to an allowed development.

**Shoreland areas** - Those lands extending landward for two hundred feet horizontally in all directions from the ordinary high water mark; floodways and contiguous floodplains landward two hundred feet from such floodways; and all wetlands, including river deltas associated with streams, rivers and tidal waters subject to the provisions of this chapter; location of same to be designated by the Dept. of Ecology.

**Shorelands** - See "Shoreland areas."

**Shoreline Armoring** - Structural protection from wave erosion including revetments, bulkheads, sea walls, gabions, and so forth.

**Shoreline Environment Designations** - The categories of shorelines established by local Shoreline Master Programs to provide a uniform basis for applying policies and use regulations within distinctively different shoreline areas.

**Shoreline Jurisdiction (Associated Wetlands [Jurisdictional])** - The proper term for all geographic areas covered by the Shoreline Management Act, related rules, and applicable master programs. Lands extending landward for 200 feet horizontally in all directions, from the ordinary high water mark; floodways and contiguous floodplain areas landward 200 feet from such floodways; and all marshes, bogs, swamps, and deltas associated with streams, lakes, and tidal waters subject to the Act. See RCW 90.58.030 (2f) or its successor, WAC 173-16-030(17) or its successor; WAC 173-22-030(10) or its successor. Also, such areas within a specified local government's authority. See definitions of shorelines, shorelands, shorelines of the state, and Shorelines of Statewide Significance, and wetlands, jurisdictional.

**Shoreline Management Act (SMA)** - The Shoreline Management Act of 1971, RCW Ch. 90.58, as amended, also "the Act."

**Shoreline Stabilization and Flood Protection** - Actions to reduce adverse impacts caused by current, flood, wake, or wave action. These include structural and nonstructural means to reduce impacts from flooding, erosion, and accretion. Examples of specific structural and nonstructural shoreline modifications include revetments, riprap, bulkheads, and bank stabilization.

**Shoreline Permit** - A Substantial Development, Conditional Use or Revision permit, or Variance, or combination thereof.

**Shoreline Substantial Development Permit** - A mechanism the City uses to determine whether a proposed development or activity complies with the Shoreline Management Act (Chapter 90.58 RCW or its successor) and the Master Program.

**Shorelines** - All water areas of the State, including reservoirs and associated wetlands, together with the lands underlying them, except those areas excluded under RCW 90.58.030(2)(d) or its successor and shorelines of statewide significance.

**Shorelines Hearings Board (SHB)** - A six-member, quasi-judicial body, created by the Shoreline Master Program, which hears appeals by aggrieved parties on the issuance of shoreline permits and appeals by local governments of State Dept. of Ecology approval of master programs, rules, regulations, guidelines, or designations under the Shoreline Management Act. [RCW 90.58.170 or its successor; 90.58.180 or its successor].

**SMA** - see Shoreline Management Act

**SMP** - Shoreline Master Program

**Shorelines of State-wide Significance** - A select category of shorelines of the State, defined in RCW 90.58.030(2)(e) or its successor, where special preservation policies apply and where greater planning authority is granted by the Shoreline Management Act [RCW 90.58.020 or its successor]. Within the City's jurisdiction, all areas lying seaward of the extreme low tide line are shorelines of statewide significance [RCW 90.58.030 (1)(e)(iii) or its successor].

**Shorelines of the State** - Shorelines including shorelines of state-wide significance.

**Sign** - Any structure, device, object or display used to identify, advertise, direct or attract attention to a business, product, service, activity, place, person, institution or event using words, figures, graphics, symbols, fixtures, colors, illumination or projected images.

**Single-family Residence (SFR)** - A detached dwelling designed for and occupied by one family, including those structures and developments within a contiguous ownership that are a normal appurtenance. [WAC 173-27-040(2)(g) or its successor].

**Soil Bioengineering** - An applied science combining structural, biological, and ecological concepts to construct living structures that stabilize the soil to control erosion, sedimentation, and flooding using live plant materials as a main structural component.

**Solid Waste Disposal** - Discharge, deposit, injection, dumping, spilling, leaking or placing of any solid waste, including hazardous waste, on land or in the water.

**Solid Waste** - Solid and semi-solid wastes, including garbage, rubbish, ashes, industrial wastes, wood wastes, and sortyard wastes associated with commercial logging activities, swill, demolition and construction wastes, abandoned vehicles and parts of vehicles, household appliances, and other discarded commodities. Solid waste does not include wastewater, dredge material, agricultural, or other commercial logging wastes not specifically listed above. See landfill and dredging material.

**Spit** - An accretion shoreform that extends seaward from and parallel to the shoreline. They are usually characterized by a wave-built berm on the windward side and a more gently sloping, muddy, or marshy shore on the leeward side. A curved spit is normally called a hook.

**Spur Dock** - See Groin.

**SSDP** - Shoreline Substantial Development Permit.

**Structure** - A permanent or temporary edifice or building, or any piece of work artificially built or composed of parts joined together in some definite manner, whether installed on, above, or below the surface of the ground or water, except for vessels. [WAC 173-27-030(15) or its successor].

**Subdivision** - The division or redivision of land, including short subdivisions, for the purpose of sale, lease, or conveyance.

**Substantial Development** - Any development of which the total cost or fair market value exceeds five thousand dollars (\$5,000) [or another amount established in 90.58.030(3)(e) RCW or its successor], or any development which materially interferes with the normal public use of the water or shorelines of the State, except as specifically exempted pursuant to RCW 90.58.030(3)(e) or its successor. See definitions for Development and Exemption.

**Substantial Progress** - Substantial progress toward completion of a permitted activity includes all of the following, where applicable: the making of contracts, signing of notice to proceed, completion of grading and excavation and the laying of major utilities; or, where no construction is involved, commencement of the activity.

**Subtidal** - The area of the marine environment below extreme low tide.

**Sustainable Development** - Development that maintains a balance between the health of the natural environment and the needs of the human community living within it.

**Systems Ecology** – A transdiscipline which studies ecological systems, or ecosystems. As an environmental science, systems ecology has also been associated with the notion of *field physiology* which applies the concept of metabolism as understood in physiology and bioenergetics to 'the field', like a 'field' of wheat for example. Like systems biology, systems ecology seeks a holistic view of the interactions and transactions within and between biological and ecological systems. Moreover, systems ecologists realize that the function of any ecosystem can be influenced by human economics in fundamental ways. They have therefore taken an additional transdisciplinary step by including economics in the consideration of ecological-economic systems.

**Terrestrial** - Of or relating to land as distinct from air or water.

**Tidal Inlet** - A salt-water bay, subject to the daily influence of tides, whose mouth is narrower than its length. The inlet is all lands and waters seaward of the ordinary high water mark, and extending to its mouth. Within tidal inlets, specific areas constituting critical habitat are designated for special protection under the Master Program.

**Tidal Flats** - Marshy or muddy areas of seabed covered and uncovered by the rise and fall of tidal water.

**Tidal Lagoon** - A body of saline water (salinity greater than 0.5 parts per thousand) with a constricted or subsurface outlet subject to periodic, but not necessarily daily, exchange of water with Puget Sound or a tidal inlet. The exchange may occur seasonally, during storms, or during the highest spring tides. The connection between the sea and the lagoon is not necessarily on the surface, and can be subsurface through permeable gravel or sand berms.

**Tidal Water** - Includes marine and estuarine waters bounded by the ordinary high water mark. Where a stream enters the tidal water, the tidal water is bounded by the extension of the elevation of the marine ordinary high water mark within the stream.

**Tidelands** - Land on the shore of marine water bodies between the line of ordinary high tide and the line of extreme low tide.

**Toxic Material** - Any material damaging marine life including, but not limited to, paints, varnishes, anti-fouling agents, bleaches, petroleum, and contaminated bilge waste water.

**Transient Moorage** - Moorage for a stay of less than two (2) weeks.

**Transportation Facilities** - Structures and developments that aid in land and water surface movement of people, goods, and services. They include roads and highways, bridges and causeways, bikeways, trails, railroad facilities, ferry terminals, float plane terminals, heliports, and other related facilities.

**Upland** - Generally described as the area above and landward of the OHWM.

**Utilities, Accessory** - Small scale distribution systems directly serving a permitted shoreline use. They include power, telephone, cable, water, sewer, septic, and stormwater lines.

**Utilities, Primary** - Facilities to produce, transmit, carry, store, distribute, or process electric power, gas, water, sewage, or information. Primary utilities include solid waste handling and disposal facilities, wastewater treatment facilities, utility lines, electrical power generating or transfer facilities, radio, cellular telephone and microwave tower, and gas distribution and storage facilities.

**Variance** - A means to grant relief from specific dimensional, or performance standards specified in the applicable Master Program, and not a means to vary the use of a shoreline. Variance permits must be specifically approved, approved with conditions, or denied by the Washington State Department of Ecology. (See WAC 173-27-030 (17) or its successor).

**Vessel** - A ship, boat, barge, or other floating craft designed and used for navigation and which does not interfere with normal public use of the water.

**View Corridor** - An area free of buildings and other view-blocking structures that provides visual access to water and/or the shoreline.

**WAC** - Washington Administrative Code.

**Water-bar** - A diversion ditch and/or hump in a trail or road for the purpose of carrying surface water runoff into the vegetation duff, ditch, or other dispersion area so it does not gain the volume and velocity to cause soil movement and erosion.

**Water-dependent Use** - A use or a portion of a use which requires direct water contact and cannot exist at a nonwater location due to its intrinsic nature. 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.

**Water-enjoyment Use** - A recreational use, or other use facilitating public shoreline access as a primary characteristic of the use, or 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 location, design, and operation ensures public ability to enjoy the physical and aesthetic qualities of the shoreline. 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 foster 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. General water-enjoyment uses may include, but are not limited to, restaurants, museums, aquariums, educational/scientific

reserves, resorts, and mixed use commercial, provided such uses conform to the above water-enjoyment specifications and provisions of the Master Program.

**Water-oriented Use** - Any combination of water-dependent, water-related and/or water-enjoyment uses.

**Water-related** - A use or a portion of a use which is not intrinsically dependent on a waterfront location, but whose economic viability is dependent upon a waterfront location because:

1. 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,
2. 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: 1) manufacturers of ship parts large enough that transportation becomes a significant factor in the product(s) cost, 2) professional services serving primarily water-dependent activities, and 3) 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.

**Wave Direction** - The direction from which waves approach an observer..

**Washington State Department of Ecology** - See Ecology.

**Wetlands** - Areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to 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 from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands that were 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.

**Wetlands, Jurisdictional** - See "shoreland areas."

**Zoning** - To designate by ordinance, including maps, areas of land reserved and regulated for specific land uses.



**Appendix B**  
**Presentation Map Portfolio**



# City of Lynnwood Shoreline Master Program Presentation Map Portfolio

## Background

The Shoreline Management Act (SMA) was passed by the Washington legislature in 1971 and adopted by the public in a 1972 referendum. The overarching goal of the SMA is "to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines." The City of Lynnwood's sewage treatment plant is located on City property that has Puget Sound shoreline. This is property that is subject to the Shoreline Management Act. During 2003, staff became aware that the City has never adopted a Shoreline Master Program as required by the SMA. Discussions with the Washington State Department of Ecology have revealed that the agency was unaware that the City has land subject to the SMA. A Shoreline Master Program is required for the City of Lynnwood sewage treatment plant property. The Community Development Department has prepared a work program to prepare a Shoreline Master Program (SMP). It is intended that the SMP will be adopted as an element of the Comprehensive Plan as one of the 2006 annual amendments.

## Purpose

The purpose of the City of Lynnwood Presentation Map Portfolio is to establish an inventory of all pertinent and available data, reports, information, aerial photographs, plans, studies, and other information for analysis. This baseline inventory of natural and built conditions in the City of Lynnwood's shoreline jurisdiction will provide a basis for the preparation of the City's Shoreline Master Program. The Washington State Department of Ecology requires that at a minimum, and to the extent such information is relevant and reasonably available, local governments collect the following information.

## Description of Maps

Ecology's draft shoreline guidelines require that at a minimum, and to the extent such information is relevant and reasonably available, local governments collect the following information in items B through J below. For most original maps, two formats have been used. Maps of the immediate City of Lynnwood shoreline area, referred to as the Study Area on Map A3, are at a scale of approximately 1:4000. Maps of the regional shoreline, referred to as the Brown's Bay region on Map A3, are at a scale of approximately 1:24000. This is generally the largest appropriate scale for the selected regional data. When digital map data was not available, the largest scale published maps have been used.

### A. *Vicinity Map – to orient the reader with the City of Lynnwood wastewater treatment plant and study area.*

- A1: City of Lynnwood Vicinity Map. This map illustrates the Lynnwood study area, and neighboring jurisdictions, while the overview map shows the extent of the County.
- A2: City of Lynnwood Site Map – Lynnwood Study Area. This map includes an aerial photograph and shows the extent of the City of Lynnwood wastewater treatment plant. The overview map shows the non-contiguous city site in relation to the remainder of the City of Lynnwood.
- A3: Southwest Snohomish County Jurisdictions and Coverages. This map shows the relationship of the Lynnwood Study Area (blue rectangle) and Brown's Bay shoreline area (orange rectangle) to Lynnwood, the municipal urban growth area (MUGA) and neighboring cities. The map also shows the relationship of the Lynnwood Study Area to the Puget Sound Drainage Sub-basin

### B. *Shoreline and adjacent land use patterns and transportation and utility facilities, including the extent of existing structures, impervious surfaces, vegetation and shoreline modifications in shoreline jurisdiction.*

- B1: Shoreline & Adjacent Land Use Patterns – City of Edmonds Comprehensive Plan Map (2003). Adjacent Plan Designations are Single Family Large Lot and Park/Open Space.
- B2: City of Edmonds Zoning Map (2003). Adjacent Zoning Designations are RSW-12 (12,000 square foot residential waterfront lots), OS (open space), and RS-12 (12,000 square foot residential lots).

- B3: Existing structures – Depicts the City of Lynnwood wastewater treatment plant building footprint.
- B4: Pervious Surface – Depicts the pervious surfaces in the City of Lynnwood wastewater treatment plant site.
- B5: City of Lynnwood Sewer Lines – Depicts the existing sewer lines in and surrounding the wastewater treatment plant site.
- B6: Eelgrass and Spartina. This map, derived from the Washington DNR Shorezone Inventory, shows the only patchy eelgrass in the Brown's Bay region to be far to the north of the City. The inventory did not record any presence of spartina in or near the City of Lynnwood. (Note that the side-looking SONAR inventory conducted by Battelle for King County, and shown in Maps B11a and B11b, did find apparent patchy eelgrass much closer to the City's shoreline zone)
- B7: Shoreline Modifications – Lynnwood's shoreline has been modified through the addition of rock armoring ("riprap") associated with the Burlington Northern & Santa Fe rail line. The rock armoring has been characterized by Snohomish County as either vertical, sloped, or sloped and failing. The armoring within and adjacent to the city falls into the "sloped and failing" classification. The only other significant modification is a wharf several hundred yards north of the City.
- B8: Shoreline Type – This map, derived from the Washington DNR Shorezone Inventory, shows shorelines in the Brown's Bay region to include sand beach, narrow sand and gravel beach, and sand and gravel flats or fans. The only shoreline type present in or near the City of Lynnwood is "narrow sand and gravel beach".
- B9: Drift Cells – This map, derived from Washington DOE net shore drift data, shows Lynnwood's shoreline to be in a net south-to-north drift area that extends beyond the Brown's Bay region.
- B10: Eelgrass/Kelp (Shoreline Lengths) – This map, derived from the Washington DNR Shorezone Inventory, indicates no inventoried eelgrass, kelp, or laminaria near the vicinity of our shoreline. The nearest kelp is patchy bull kelp several hundred yards south of the city limits, while the nearest eelgrass is shown a somewhat greater distance to the north of the City.
- B11a: Sonar Survey Vegetation Type - More recent side-scan sonar surveys in the Brown's Bay region also found no presence of kelp or eelgrass on our shoreline jurisdiction. Unlike the earlier DNR visual surveys, the sonar

Missing

surveys do indicate patches of both moderate and dense eelgrass within a few hundred feet of the site, and small patches of kelp within 2000 feet both north and south of the city limits.

B11b: Sonar Survey Substrate and Vegetation – The sonar survey data also provide additional detail about substrate conditions, confirming the presence of sandy bottom conditions along the shorezone. The sonar map also depicts the general orientation of the wastewater treatment plant outfall, extending through the survey area.

B12: Fucus & Ulva (Shoreline Lengths) – This map, derived from the Washington DNR Shorezone Inventory, shows evidence of both patchy focus (barnacle) and patch ulva (algae) off the shore of the City of Lynnwood.

C. *Critical areas, including wetlands, aquifer recharge areas, fish and wildlife conservation areas, geologically hazardous areas, frequently flooded areas, and shorelines of statewide significance.*

C1: City of Lynnwood Sensitive Areas Map. Depicts critical areas (no wetlands known on waste water treatment plant site).

- Aquifer Recharge Areas – Unknown.
- Fish and Wildlife Conservation areas – mapped near Lynnwood city limits.

C2: Geologically Hazardous areas – See Composite Geological Map of the Sno-King Area created by the University of Washington and USGS (2004). The Geologic Units present in the vicinity of the City of Lynnwood wastewater treatment plant site include “Qvt – Vashon till” and “Qpf – pre-Fraser deposits”.

C3: Frequently Flooded areas – Flood Insurance Rate Map from FEMA. According to FEMA’s Flood Zone Definitions: Zone A is an area of special flood hazard without water surface elevations determined; Zone AE is an area of special flood hazard with water surface elevations determined; and Zone X, B, or C are areas of minimal to moderate flood hazard (where flood insurance is available but not required by federally regulated lenders). Zone AE covers the Lynnwood shoreline up to the railroad tracks but does not appear to extend to the wastewater treatment plant site.

C4: Shorelines of Statewide Significance & Shorelands Map. This map depicts Lynnwood’s estimation of the Ordinary High Water Mark (OHWM), Line of Extreme Low Tide, Shorelines of Statewide Significance, Shorelines, and Shorelands (200-feet from the OHWM).

- C5: Sensitive Areas Wetlands & Riparian Corridors (Edmonds Drainage Basin Study by RW Beck & Associates, 1991). This map exhibits the Meadowdale drainage basin and riparian corridor.
- C6: Existing Drainage System – Meadowdale Basin (Edmonds Drainage Basin Study by RW Beck & Associates, 1991). This map exhibits existing streams, drainage basin boundaries, sub basin boundaries, and pipe in the City of Edmonds (which includes the Lynnwood site).
- C7: Seasonal High Water Table (Edmonds Drainage Basin Study by RW Beck & Associates, 1991). This map exhibits the seasonal high water table in the study area.
- C8: Soils – This map shows regional soils as depicted by the USDA Natural Resources Conservation Service (NRCS). The dominant map units in the Lynnwood Study Areas are Alderwood-Everett gravelly sandy loams (25-70% slopes) and Alderwood-Urban Land complex (8-15% slopes). These soils are typically moderate well to somewhat excessively drained above a much less permeable hardpan layer. Hydric soils are either missing or occur in small areas below the mapping unit criteria for the survey.
- C8x: Generalized Land Use
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- C9a: Bathymetry and Topography. Recent LIDAR imagery has been used to generate a hillshade terrain map and both 10 and 100-foot contours for the upland areas within the City of Lynnwood study area. This map shows clearly the beach, valley floor, and access road portions of the site. Bathymetry, here superimposed with 50 and 100 foot contours, has been derived from PRISM 10 meter digital elevation model data.
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- C9b: Percent Slope. The LIDAR-based digital elevation model has been processed to indicate percent slope within the study area. The overall terrain of the area, relatively level low coastal bluff with deeply incised stream valleys, is clearly portrayed. The linear area of steep slopes running along the coastline is the rip-rap armored rail bed.
- C10: Selected Fish Species – This map, derived from the Washington DNR Marine Resources Database, shows selected species habitat use in Brown’s Bay. DNR surveys have shown no evidence of forage fish spawning in this area of the Sound Deeper offshore areas support both pelagic and demersal species common to Puget Sound.

- C11: Shoreline Slope Stability – This map, derived from the Coastal Zone Atlas of Washington (1979) categorizes slopes as stable, intermediate, unstable, unstable recent slide, unstable old slide, and modified. Slope categories in and around the Lynnwood study area include “modified”, “stable”, and “unstable”, with most city property being either modified or unstable.
- C12: Crab Distribution – Marine Shoreline of Snohomish County map of the existing Dungeness Crab Distribution and Recreation Harvest areas. The map shows both Dungeness crab and Dungeness crab recreational buoys in and around the Lynnwood study area. More detailed maps of crab distribution are not available.
- C13: Bathymetry & Topography - This map was developed using the same data sources and techniques described in C9a (above), showing bathymetry and topography for the coastal region containing the study area.
- C14: Forage Fish - WRIA 8 and 9 State of the Nearshore Report, King County DNR, map of known forage fish spawning areas. This map shows no evidence of spawning sand lance, surf smelt, herring, or any other fish. The Washington DNR Marine Resources Survey, not shown here, also reports no forage fish spawning in the study area.
- C15a Invertebrates - WRIA 8 and 9 State of the Nearshore Report, King County DNR, map of the distribution of selected invertebrates. This map shows evidence of Trawl Survey-Dungeness Crab, Dungeness Crab, and Geoduck off or near the City of Lynnwood shoreline.
- C15b: Geoduck – This map, derived from the Washington DNR Marine Resources Survey, shows areas of geoduck habitat in the Brown’s Bay region.
- C16: Salmonid Use of the Nearshore Environment - Areas supporting either commercial (intense season) or sportfishing for salmonids, as indicated in the Washington DFW Marine Resources Survey, are depicted as shaded area. Juvenile Chinook, chum, coho, cutthroat, pink, sockeye, and steelhead are known or expected to be found in the Nearshore zone to a depth of 30 meters.

*D. Degraded areas and sites with potential for ecological restoration.*

- D1: Photo of Pilings – This photo is evidence that there was a previous structure on or near the City of Lynnwood shoreline (they appear to be pilings). The only area with potential for ecological restoration is the treatment plant site, and these nearby pilings appear to be the only item that could be considered degraded.

E. *Areas of special interest, such as priority habitats, rapidly developing waterfronts, previously identified toxic or hazardous material clean-up sites, or eroding shorelines.*

- Priority Habitats – None known.
- Rapidly Developing Waterfronts – Does not apply, because there is no development potential of the waterfront. This is a static environment (see aerial photograph).
- Toxic or Hazardous Material Clean-up Sites – None. The wastewater treatment operations are being handled properly under existing state regulations.
- Eroding Shoreline – None. We are not aware of any significant bluff erosion (see steep slope maps – C9 and C11). However, some lengths of the rip-rap seawall protecting the BNSF tracks are described as “failing.” (See Map B7)

F. *Existing and potential shoreline public access sites, including public rights-of-way and utility corridors. The inventory will include descriptions of recorded public access easements, their prescribed use, maintenance and terms.*

- Existing & Potential Shoreline Public Access Sites – Not Applicable (strictly prohibited).
- Public Rights-of-Way – Not Applicable (strictly prohibited).
- Utility Corridors – Not Applicable.
- Explanation of Public Access Sites: Our agreement with the Railroad specifically forbids us from allowing the public to access the beach through our property. Treatment plant personnel do however have the right to cross the tracks to maintain the outfall. Any work that requires heavy equipment to cross the tracks requires coordination with the railroad and may require that the City pay to have a railroad flagger on site. We do have a lease with the railroad that allows us to drive on railroad right-of-way (not on or over the tracks) to drive around the lab building to reach the centrifuge building. The lease and the drive lane keep us clear of the tracks by a minimum of 14 feet. We fence and gate our property, entirely locked/fenced – it is open for operation only.

G. *General location of channel migration zones and floodplains.*

- Channel Migration Zones (CMZs) – No evidence of Channel Migration Zones.

G1: Floodplains – Consult FEMA Firmette map (C3), which shows estimated floodplains (Zone AE is an area of special flood hazard with water surface elevations determined).

H. *Historical aerial photographs documenting past conditions to assist in preparing an analysis of cumulative impacts of development.*

H1: Aerial photograph of site, looking East.

H2: Aerial photograph (north of site) looking East.

H3: Aerial photograph (south of site) looking East.

H4: Aerial photograph, 2000.

H5: Historic photo of treatment plant site, circa 1960.

H6: Historic photo of treatment plant site, circa 1960.

H7: Historic aerial photo, 1977.

H8: Current photo of site looking east from the beach, 08/16/2004.

H9: Current photo of site looking east, 09/08/2004.

H10: Current photo of site looking west, 09/08/2004.

I. *Archaeological or historic resources in shoreline jurisdiction.*

- Archaeological/Historic Resources – Not Applicable. Because the reach of the City of Lynnwood shoreline is so small, and because of its situation in the County, there is no available data on Archaeological or historic resources in shoreline jurisdiction.

I1: Tribal Lands – There are no Tribal Lands in the vicinity.

J. *Conditions and regulations in shore land and adjacent areas that affect shorelines, such as surface water management and land use regulations.*

- Land Use Regulations – Also applicable to the City of Edmonds (200-foot landward from the ordinary high water mark). The City of Lynnwood site is entirely surrounded by City of Edmonds. See also the City of Edmonds Zoning and Comprehensive Plan maps.



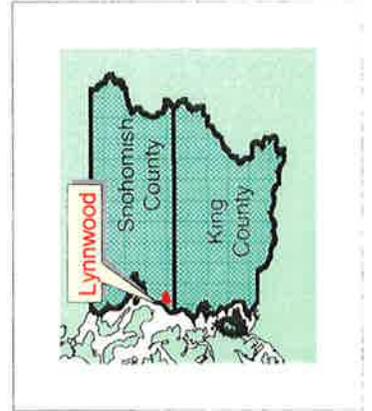
City of Lynnwood  
 Community Development  
 19000 44th Avenue West  
 PO Box 5008  
 Lynnwood, WA 98046-5008  
 Phone 425.775.1971  
 Fax 425.771.6585  
[www.ci.lynnwood.wa.us](http://www.ci.lynnwood.wa.us)

N 0 2000 Feet

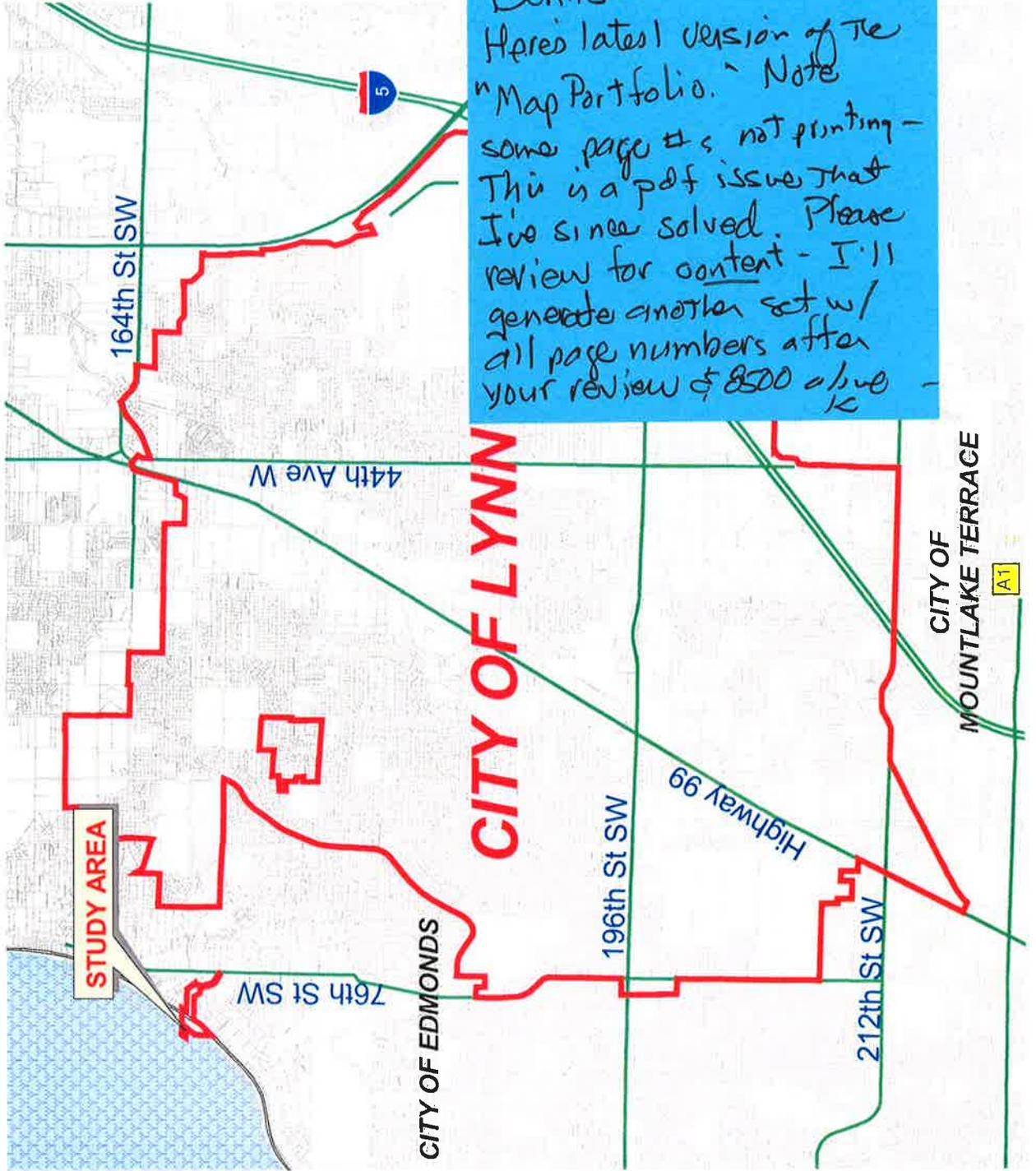
Created by the Community Development Department (GK), August 2004, for the Shoreline Master Program.  
 Data Source: City of Lynnwood GIS.

**Legend**

- Major Roads
- Railroad
- Parcels
- Puget Sound
- Lynnwood
- Counties
- Washington State



# Vicinity Map



Dennis -  
 Here's latest version of the "Map Portfolio." Note some page #'s not printing - This is a pdf issue that I've since solved. Please review for content - I'll generate another set w/ all page numbers after your review of 8500 above -  
 KC



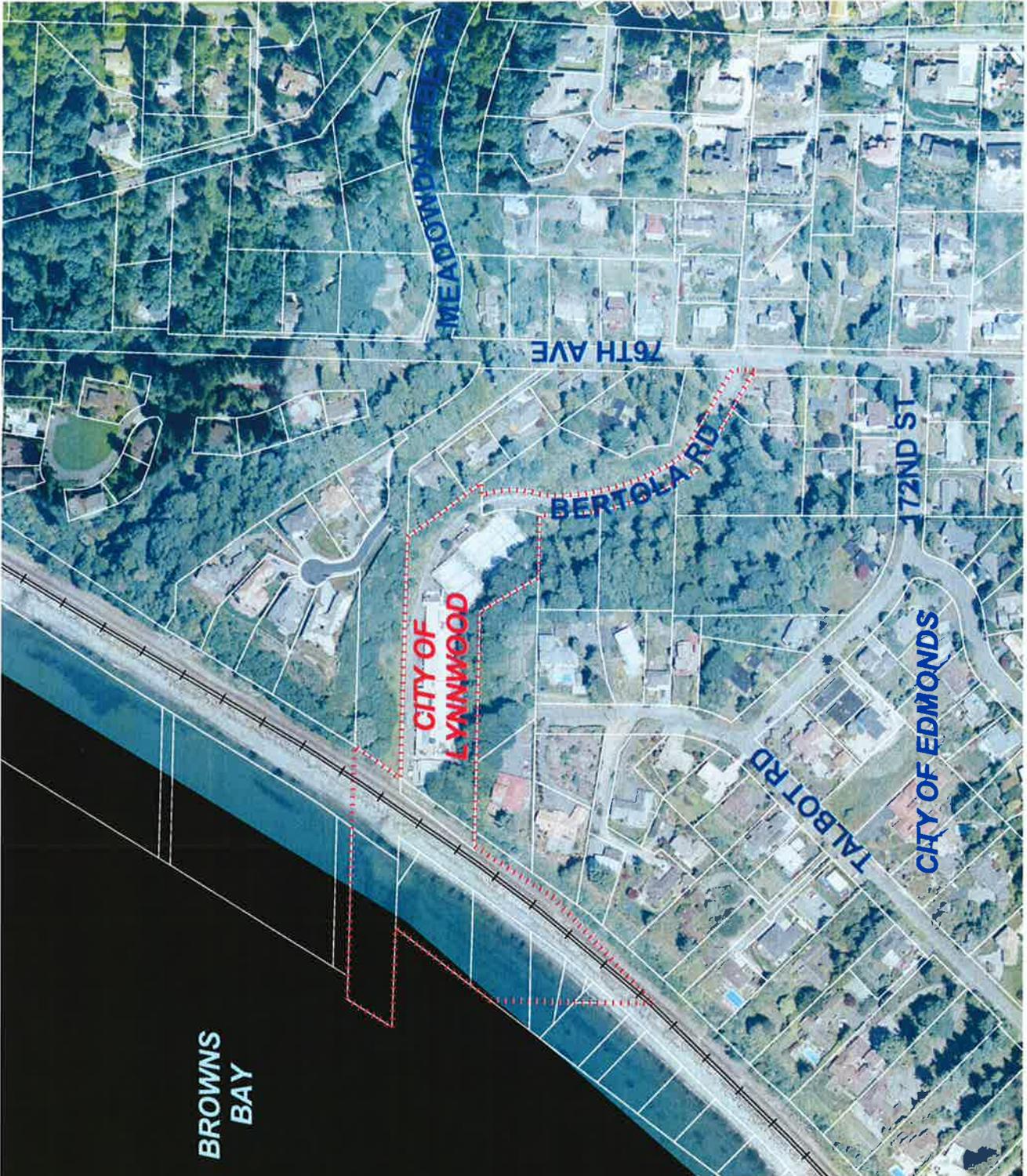
City of Lynnwood  
 Community Development  
 19000 44th Avenue West  
 PO Box 5008  
 Lynnwood, WA 98046-5008  
 Phone 425.775.1971  
 Fax 425.771.6585  
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### STUDY AREA

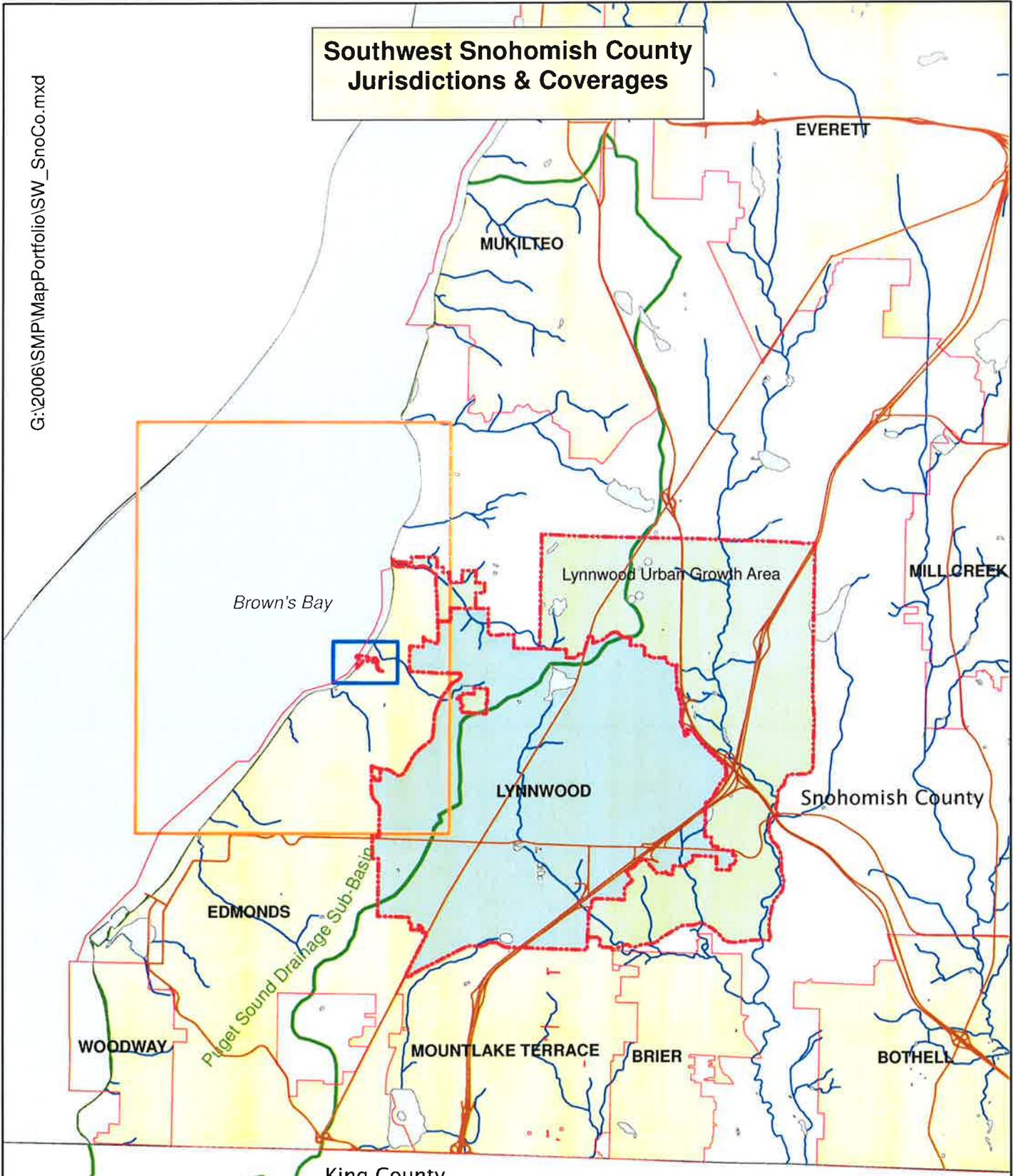
| Legend |                  |
|--------|------------------|
|        | Railroad         |
|        | City of Lynnwood |
|        | Parcels          |



Created by the Community Development Department (GDC), Revised September, 2004 for the Shoreline Master Program. Data Sources: City of Lynnwood GIS, Aerial Photograph Taken in 2000.



# Southwest Snohomish County Jurisdictions & Coverages



Legend

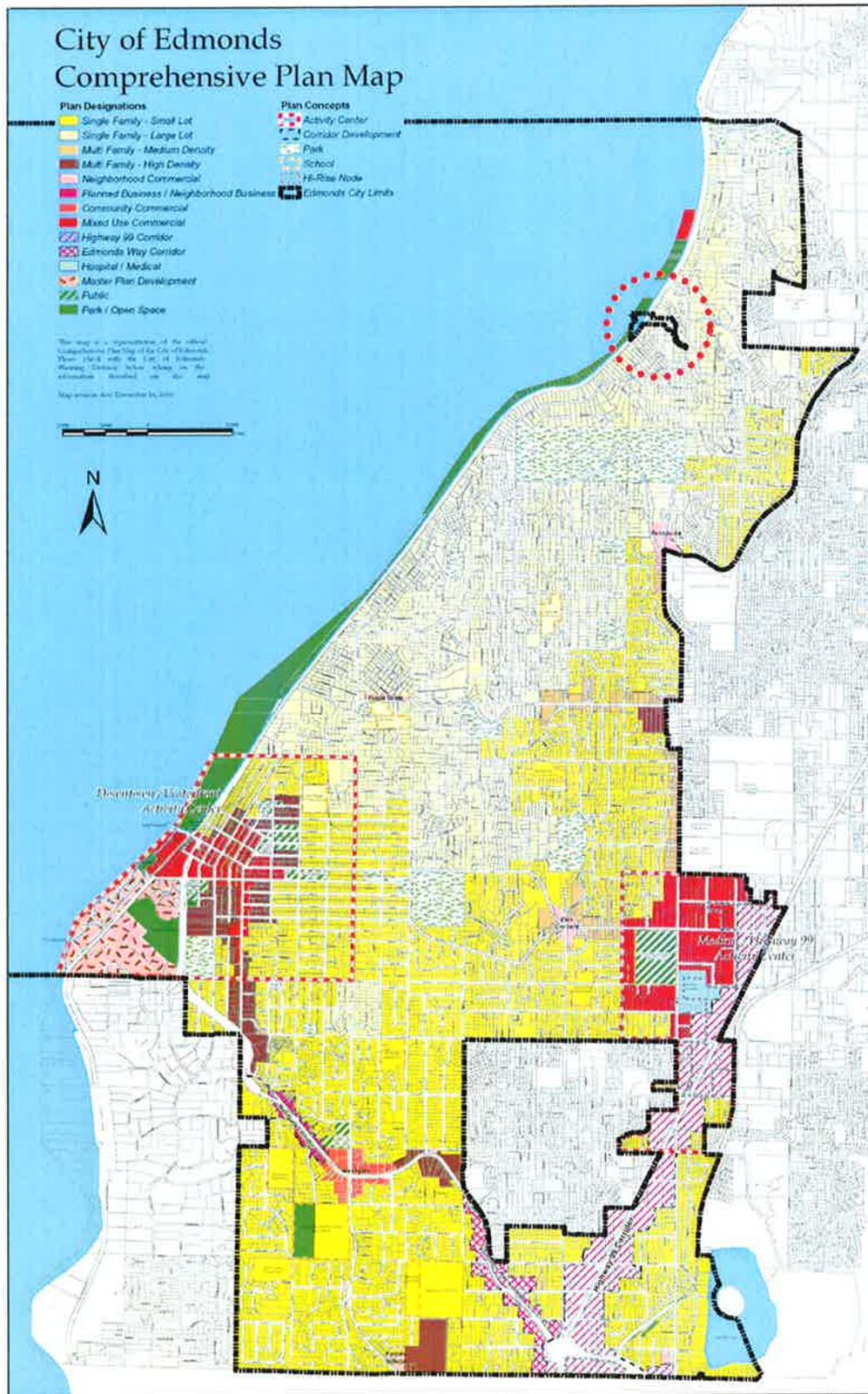
-  COL Study Area
-  Brown's Bay Region

0 0.5 1 2 3  
Miles

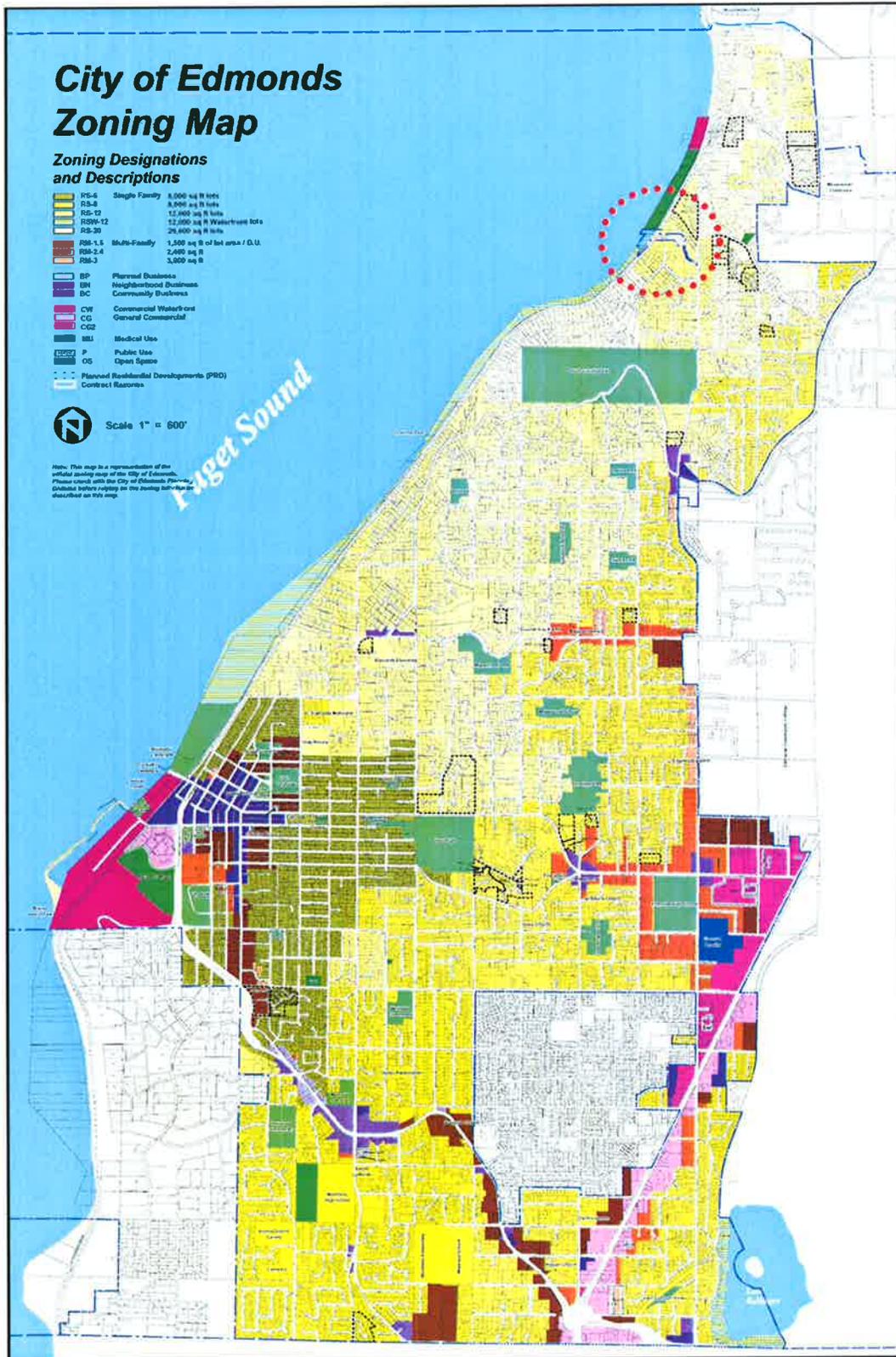


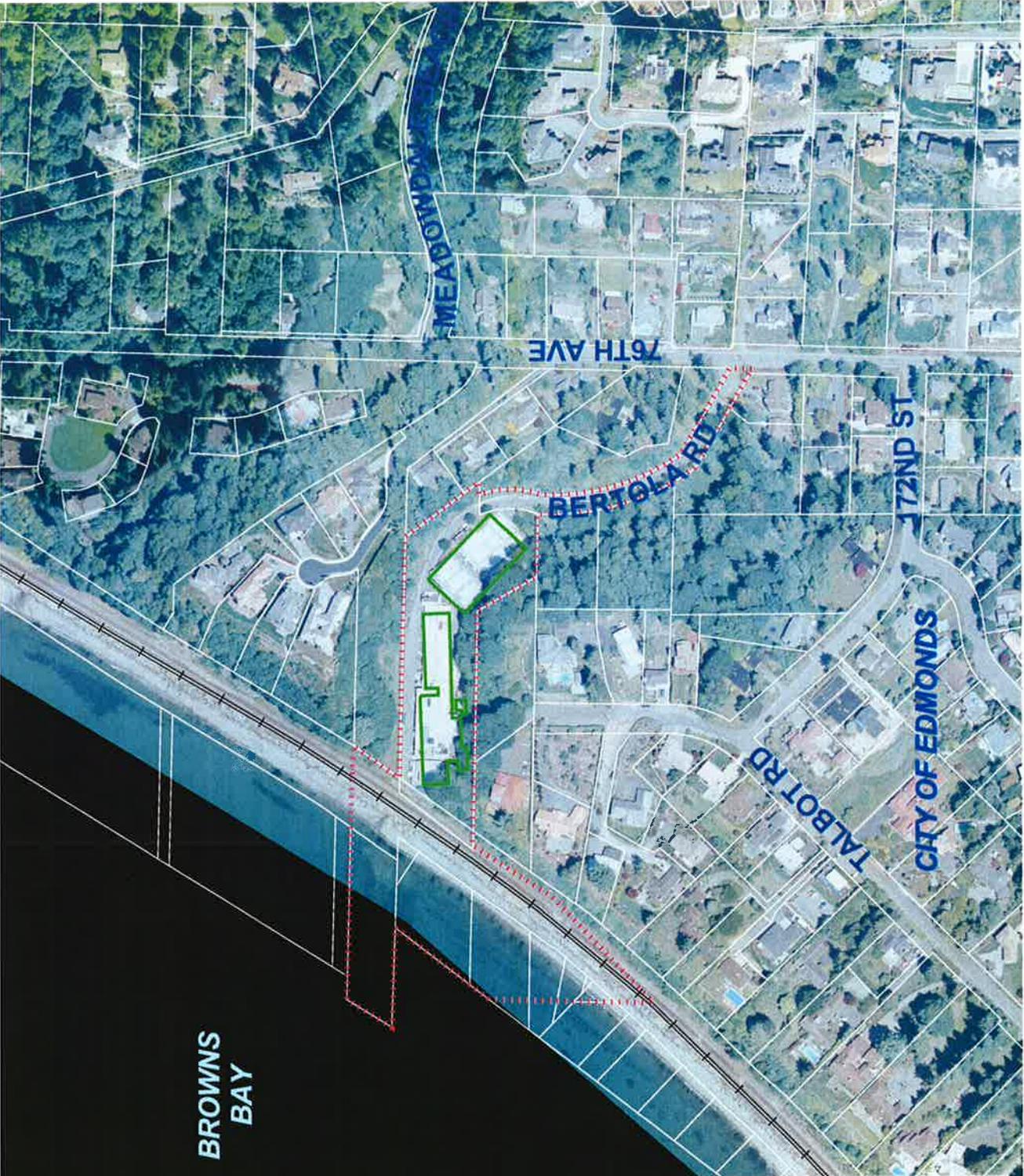
Community Development Department  
Shoreline Master Program

**B-1:** City of Edmonds Comprehensive Plan Map (2003).



**B-2:** City of Edmonds Zoning Map.





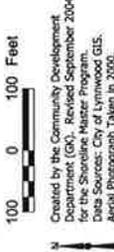
**BROWNS  
BAY**



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Lynnwood, WA 98046-5008  
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Fax 425.771.6585  
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**EXISTING  
STRUCTURES**

| Legend |                  |
|--------|------------------|
|        | Railroad         |
|        | City of Lynnwood |
|        | Parcel           |
|        | Buildings        |



Created by the Community Development Department (GIS), Revised September 2004 for the Shoreline Master Program.  
Data Sources: City of Lynnwood GIS, Aerial Photograph Taken in 2000.





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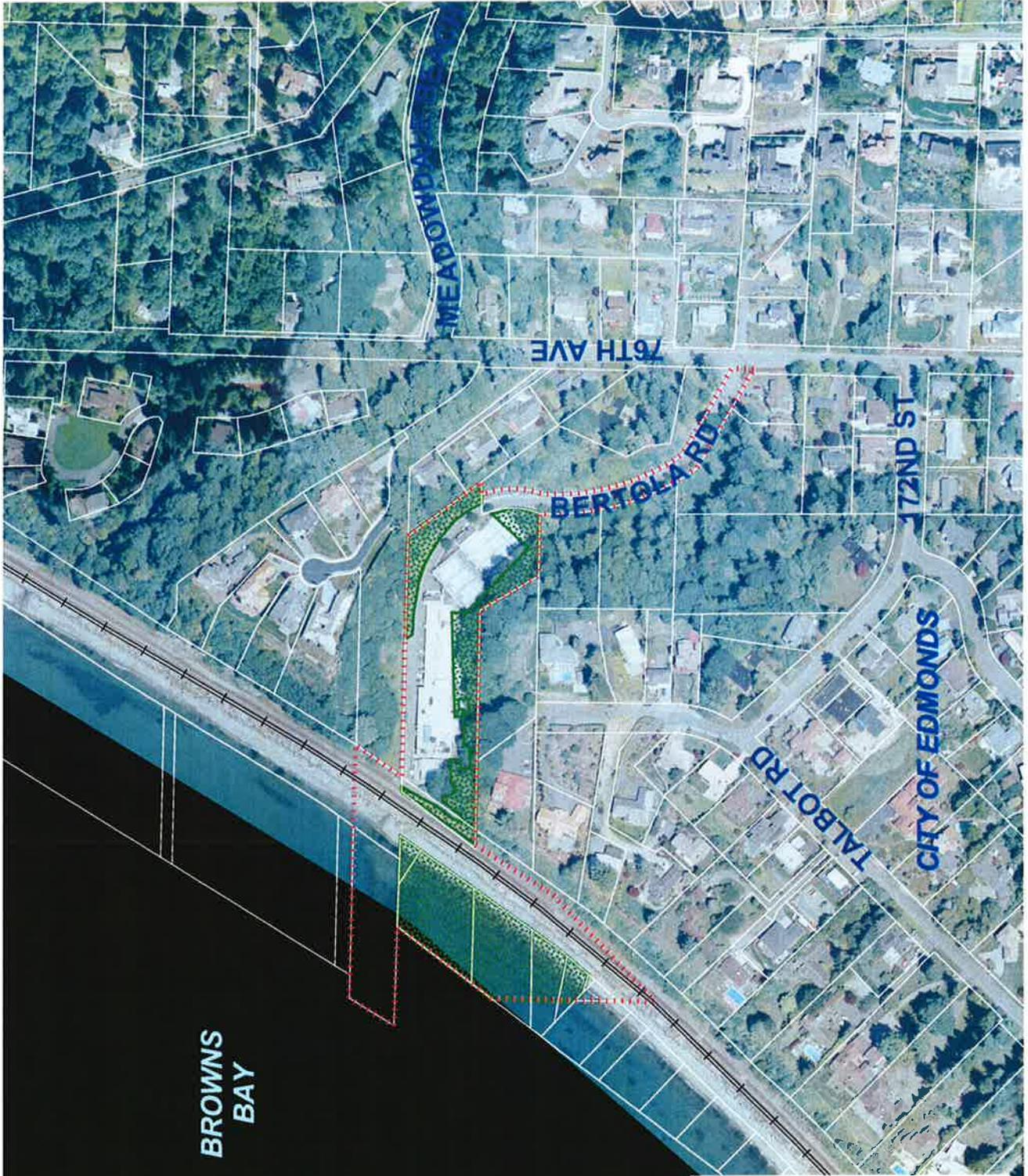
## PERVIOUS SURFACE

| Legend |                  |
|--------|------------------|
|        | Railroad         |
|        | City of Lynnwood |
|        | Parcels          |
|        | Pervious Surface |



Created by the Community Development Department (CDD), Revised September 2004 for the Shoreline Master Program.  
 Data Sources: City of Lynnwood GIS, Aerial Photograph Taken in 2000.

**BROWNS BAY**





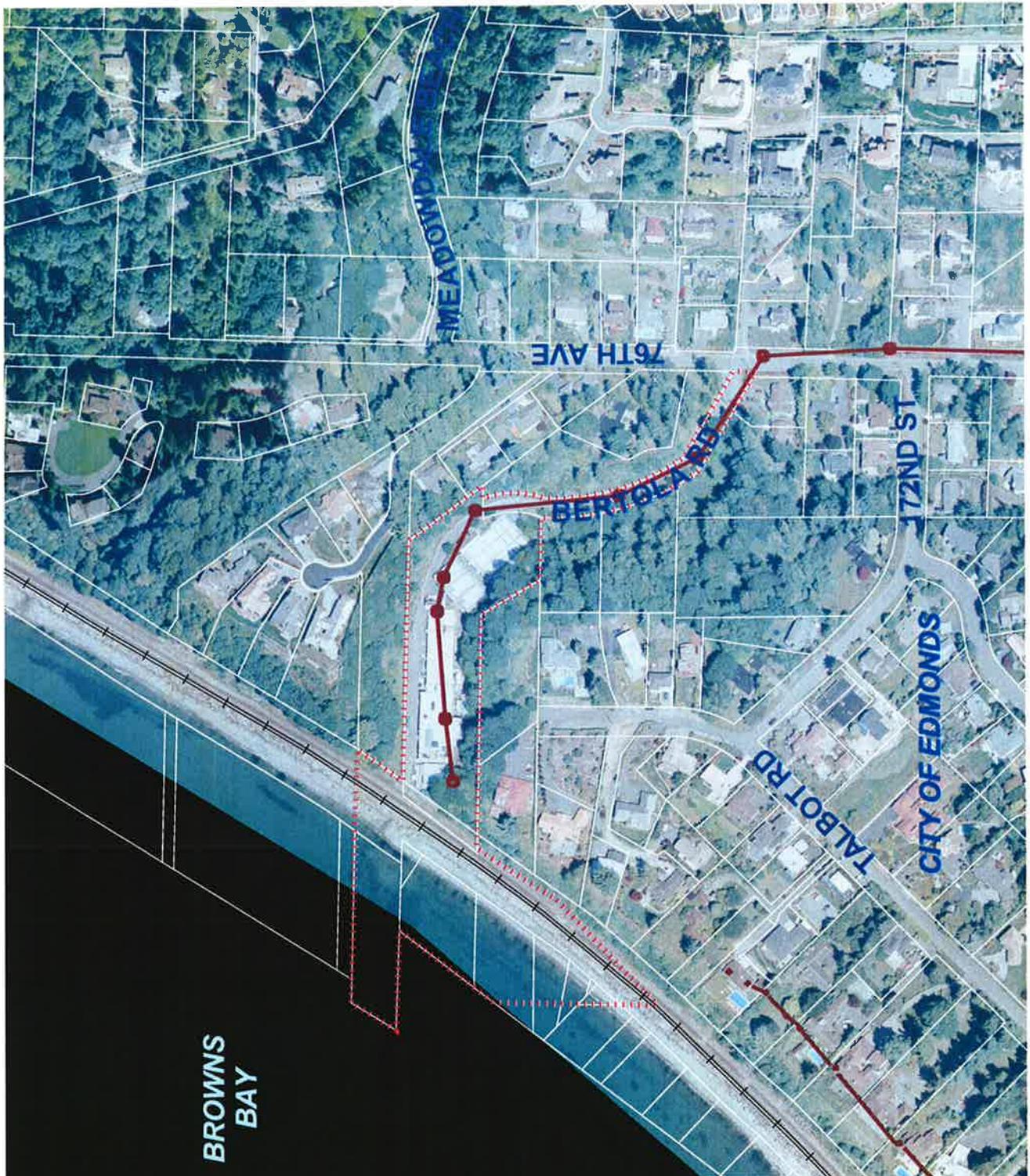
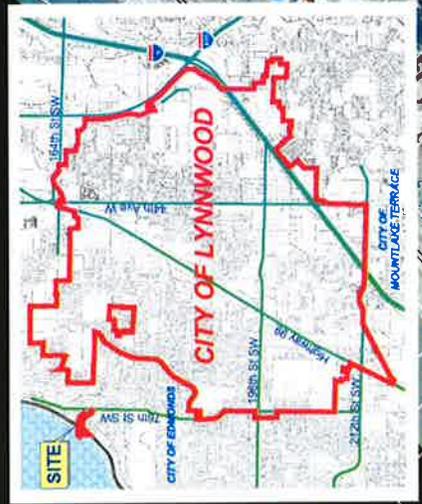
City of Lynnwood  
 Community Development  
 19000 44th Avenue West  
 PO Box 5008  
 Lynnwood, WA 98046-5008  
 Phone 425.775.1971  
 Fax 425.771.6585  
 www.ci.lynnwood.wa.us

## SEWER LINE

| Legend |                  |
|--------|------------------|
|        | Railroad         |
|        | City of Lynnwood |
|        | Sewer Line       |
|        | Parcels          |



Created by the Community Development  
 City of Lynnwood, November 2004  
 for the Shoreline Master Program  
 Data Sources: City of Lynnwood GIS,  
 Aerial Photograph Taken in 2000.



**BROWNS BAY**

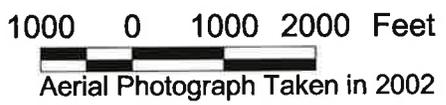
# Eelgrass & Spartina

## Legend

-  City Limits
- Eelgrass**
-  Continuous
-  Patchy
- Spartina**
-  Continuous
-  Patchy

Data Sources:  
 Spartina - Washington DNR Shorezone Inventory  
 Eelgrass - Washington DNR Shorezone Inventory

Only patchy eelgrass is reported in the coverage area



Community Development Department  
 Shoreline Master Program

# Shoreline Modifications

## Legend

-  City Limits
-  Wharf (wood)
-  Railroad
-  Rock Armoring
-  Vertical Good
-  Sloped Good
-  Sloped Failing

Data Sources:  
Snohomish County Surface Water Management,  
Armoring  
DNR Shorezone Inventory, Wharf



1000 0 1000 2000 Feet  
Aerial Photograph June 2002



Community Development Department  
Shoreline Master Program

# Shoreline Type

## Legend

-  City Limits
-  River Channels
-  River Channel, Sand
-  River Channel, Sand & Pebble
- Shoreline Type**
-  Sand beach
-  Sand and gravel beach, narrow
-  Sand and gravel flat or fan

Data Sources:  
DNR Shorezone Inventory



1000 0 1000 2000 Feet  
  
Aerial Photograph June 2002



Community Development Department  
Shoreline Master Program

# Eelgrass and Kelp Shoreline Lengths

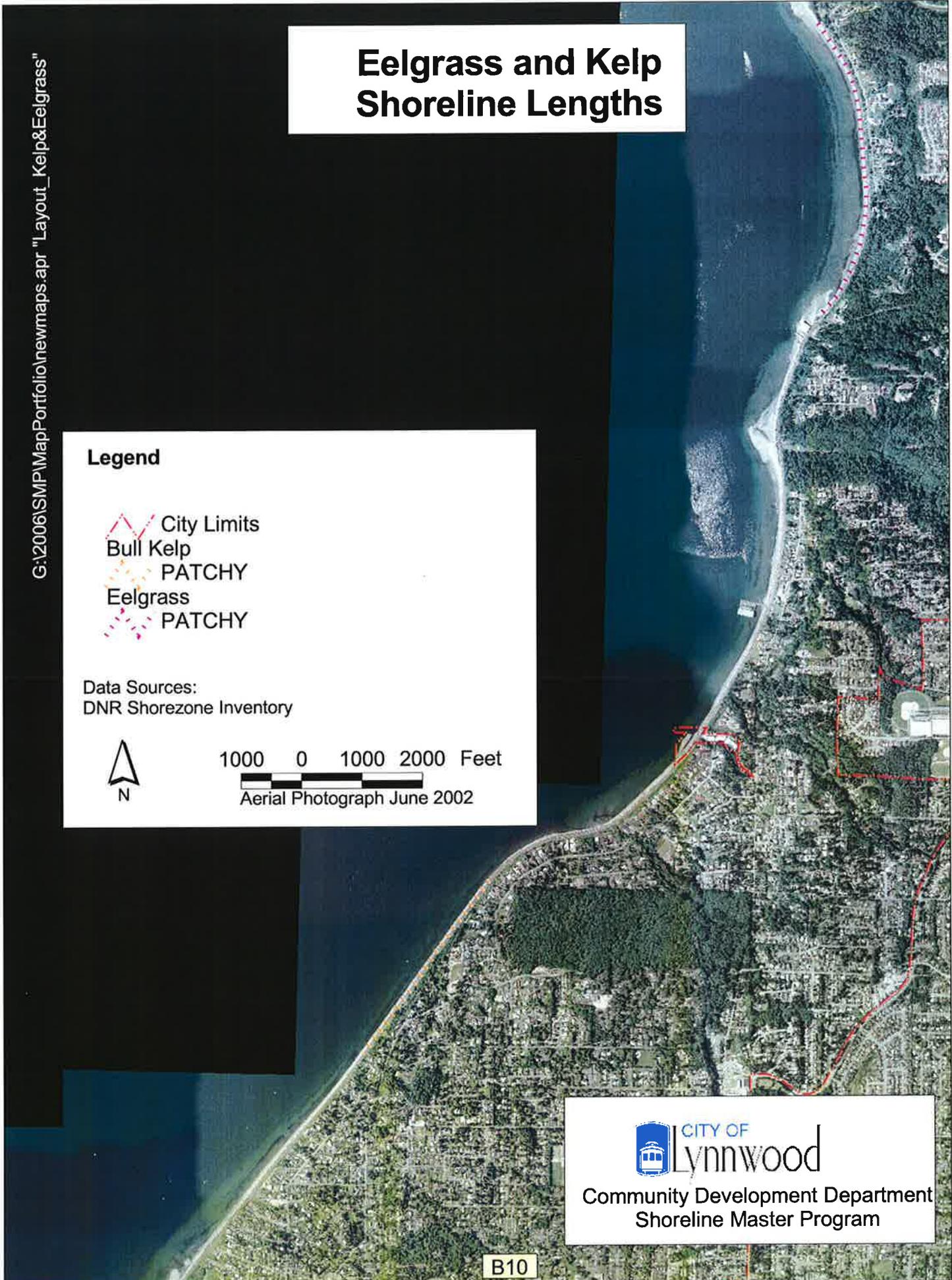
**Legend**

-  City Limits
-  Bull Kelp PATCHY
-  Eelgrass PATCHY

Data Sources:  
DNR Shorezone Inventory

 N

1000 0 1000 2000 Feet  
  
Aerial Photograph June 2002



  
CITY OF  
**Lynnwood**  
Community Development Department  
Shoreline Master Program

# Sonar Survey Vegetation Type

**Legend**

Vegetation Type

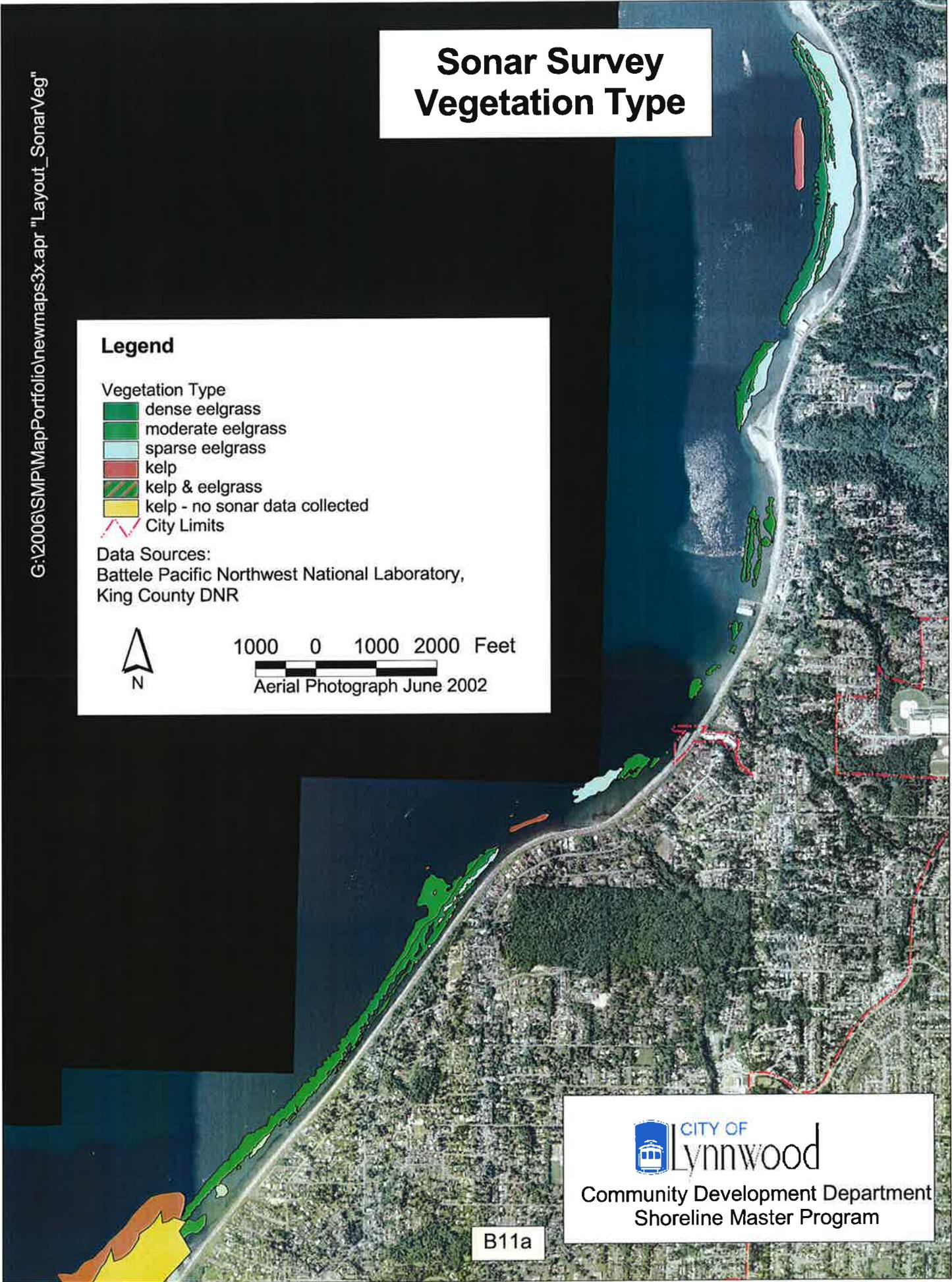
- dense eelgrass
- moderate eelgrass
- sparse eelgrass
- kelp
- kelp & eelgrass
- kelp - no sonar data collected
- City Limits

Data Sources:  
Battele Pacific Northwest National Laboratory,  
King County DNR

N

1000 0 1000 2000 Feet

Aerial Photograph June 2002



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**Lynnwood**  
Community Development Department  
Shoreline Master Program

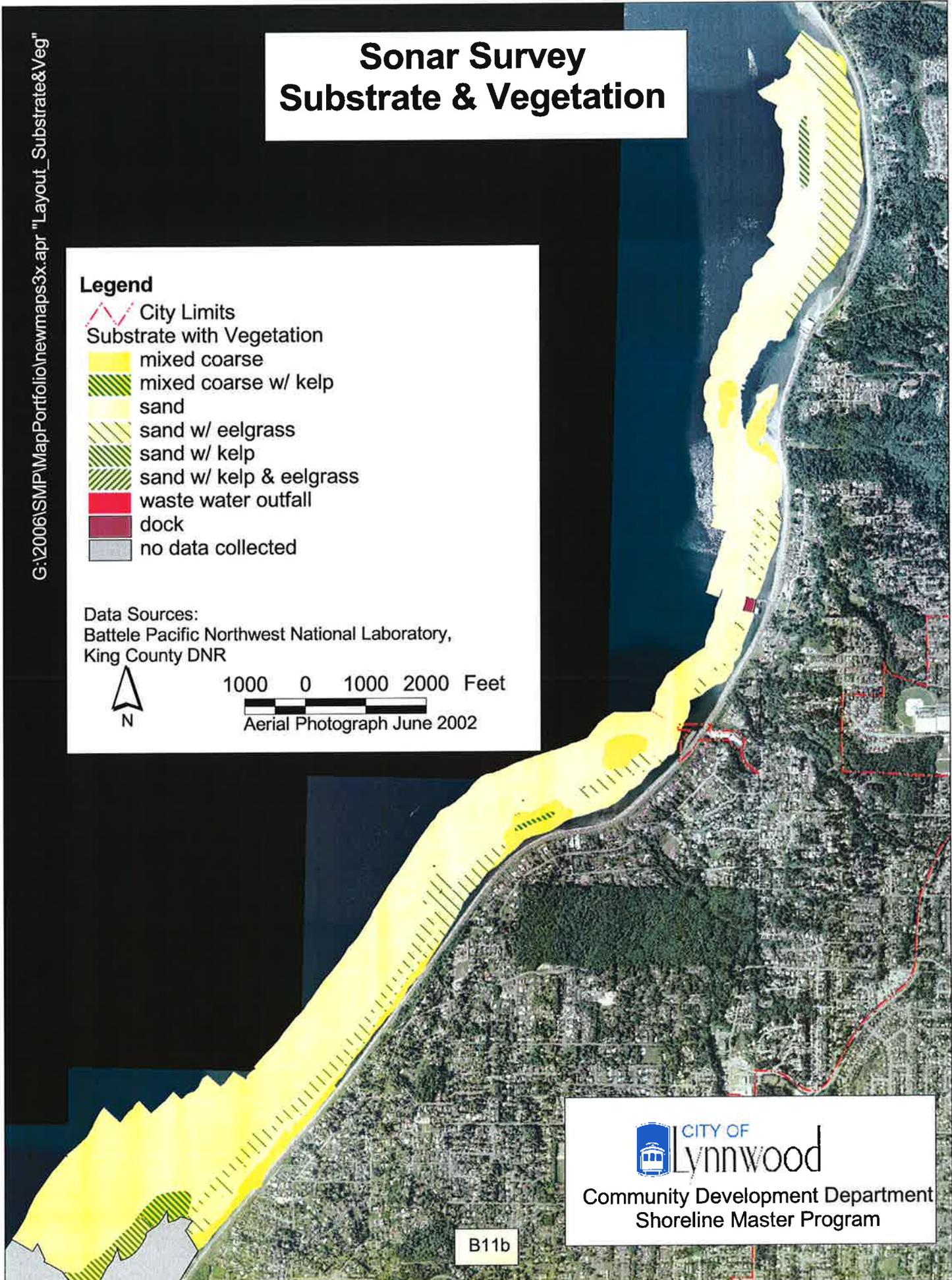
# Sonar Survey Substrate & Vegetation

**Legend**

- City Limits
- Substrate with Vegetation
  - mixed coarse
  - mixed coarse w/ kelp
  - sand
  - sand w/ eelgrass
  - sand w/ kelp
  - sand w/ kelp & eelgrass
- waste water outfall
- dock
- no data collected

Data Sources:  
Battele Pacific Northwest National Laboratory,  
King County DNR

1000 0 1000 2000 Feet  
Aerial Photograph June 2002



# Fucus and Ulva Shoreline Lengths

## Legend

-  City Limits
-  Fucus barnacle
-  Continuous
-  Patchy
-  Ulva algae
-  Continuous
-  Patchy

Data Sources:  
DNR Shorezone Inventory

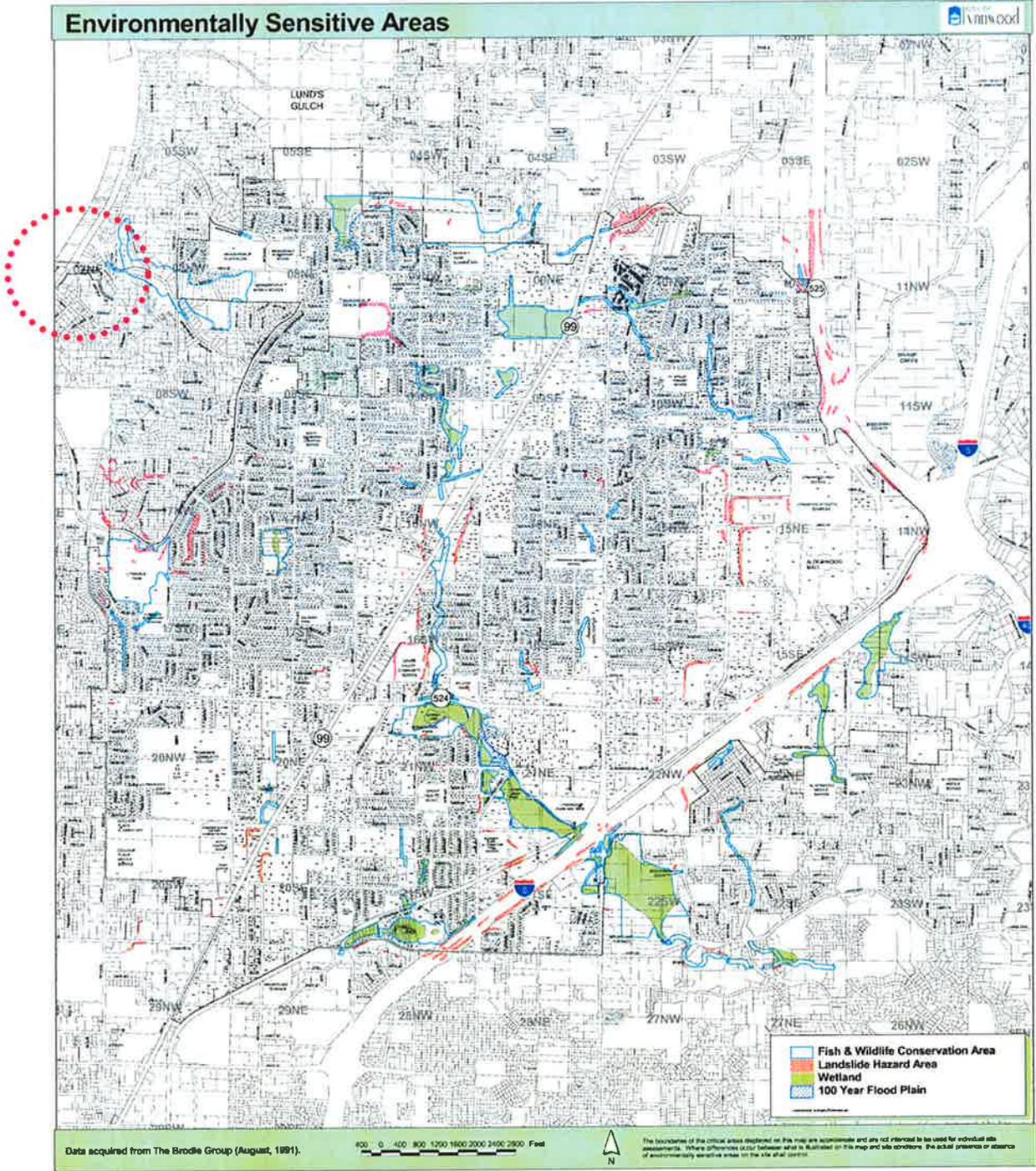


1000 0 1000 2000 Feet  
  
Aerial Photograph June 2002



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Shoreline Master Program

C-1: City of Lynnwood Sensitive Areas Map.











**CITY OF Lynnwood**  
 City of Lynnwood  
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 Fax 425.771.6585  
[www.ci.lynnwood.wa.us](http://www.ci.lynnwood.wa.us)

### SHORELINES & SHORELANDS

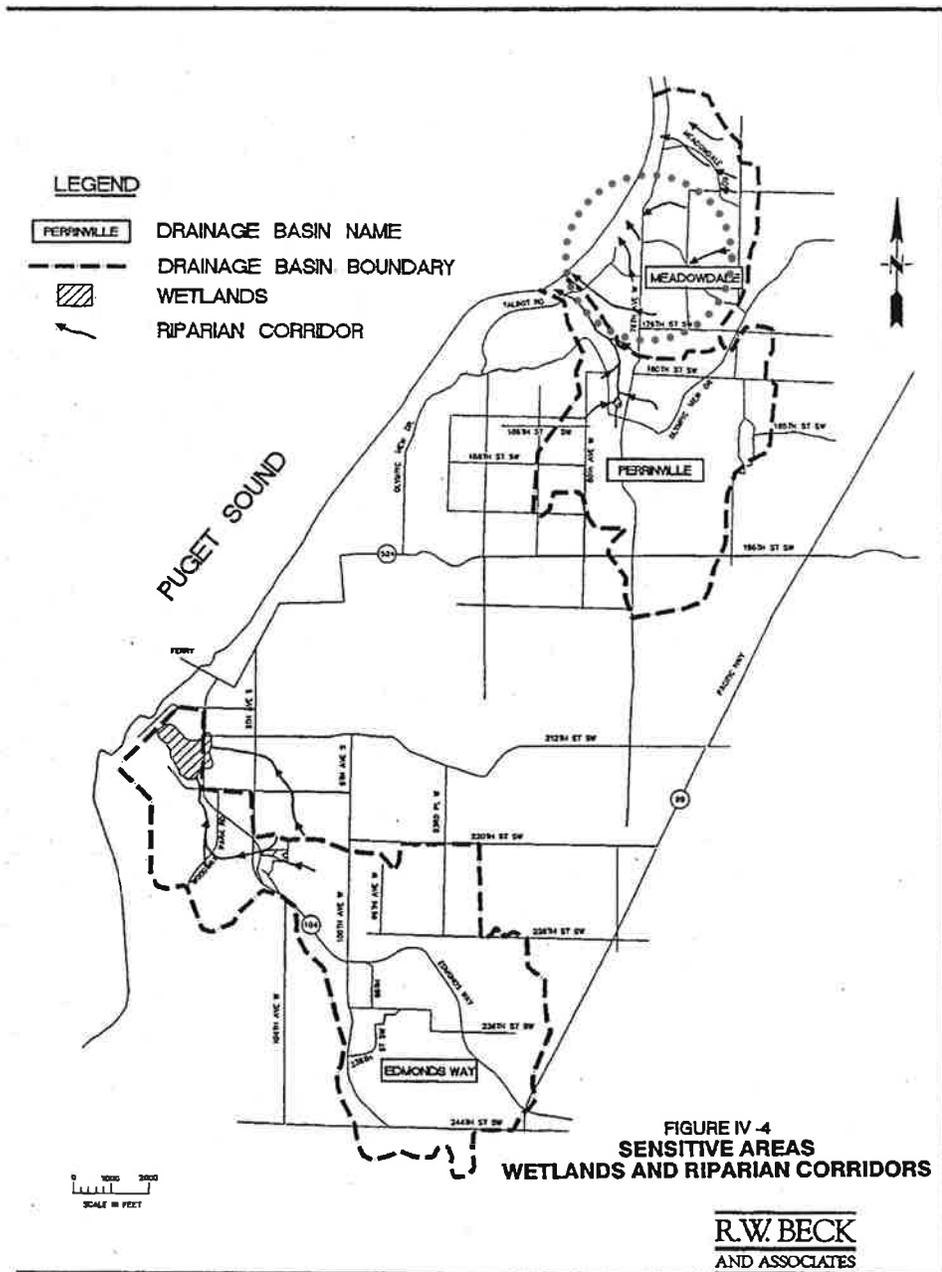
**Legend**

- City of Lynnwood
- Railroad
- Parcels
- Shorelines of Statewide Significance
- Lynnwood Shoreline
- Shorelands (200-feet from Ordinary High Water Mark)

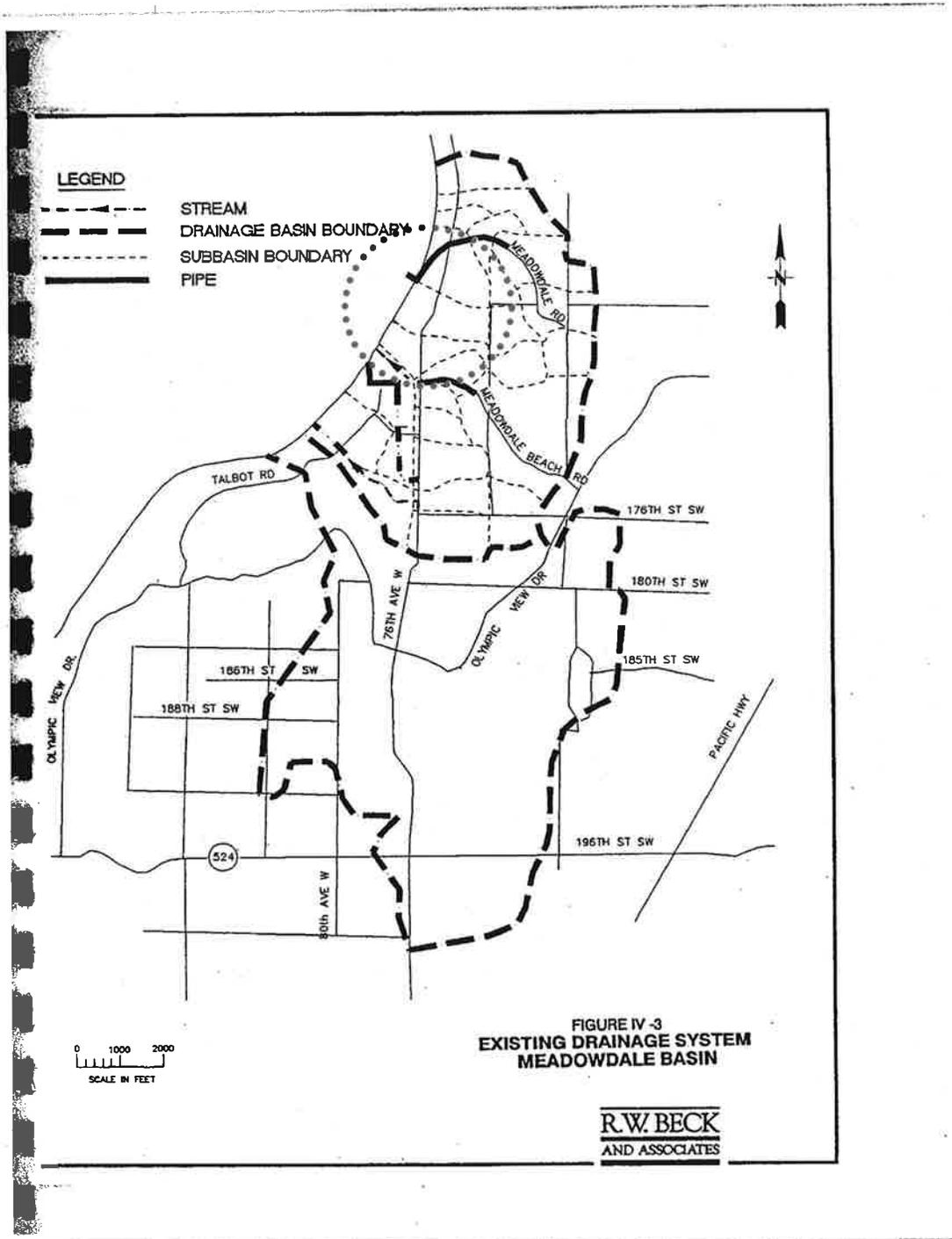
100 0 100 Feet

Created by the Community Development Department (GSI) and revised September 2004  
 Data Sources: City of Lynnwood GIS, Aerial Photograph Taken in 2000.

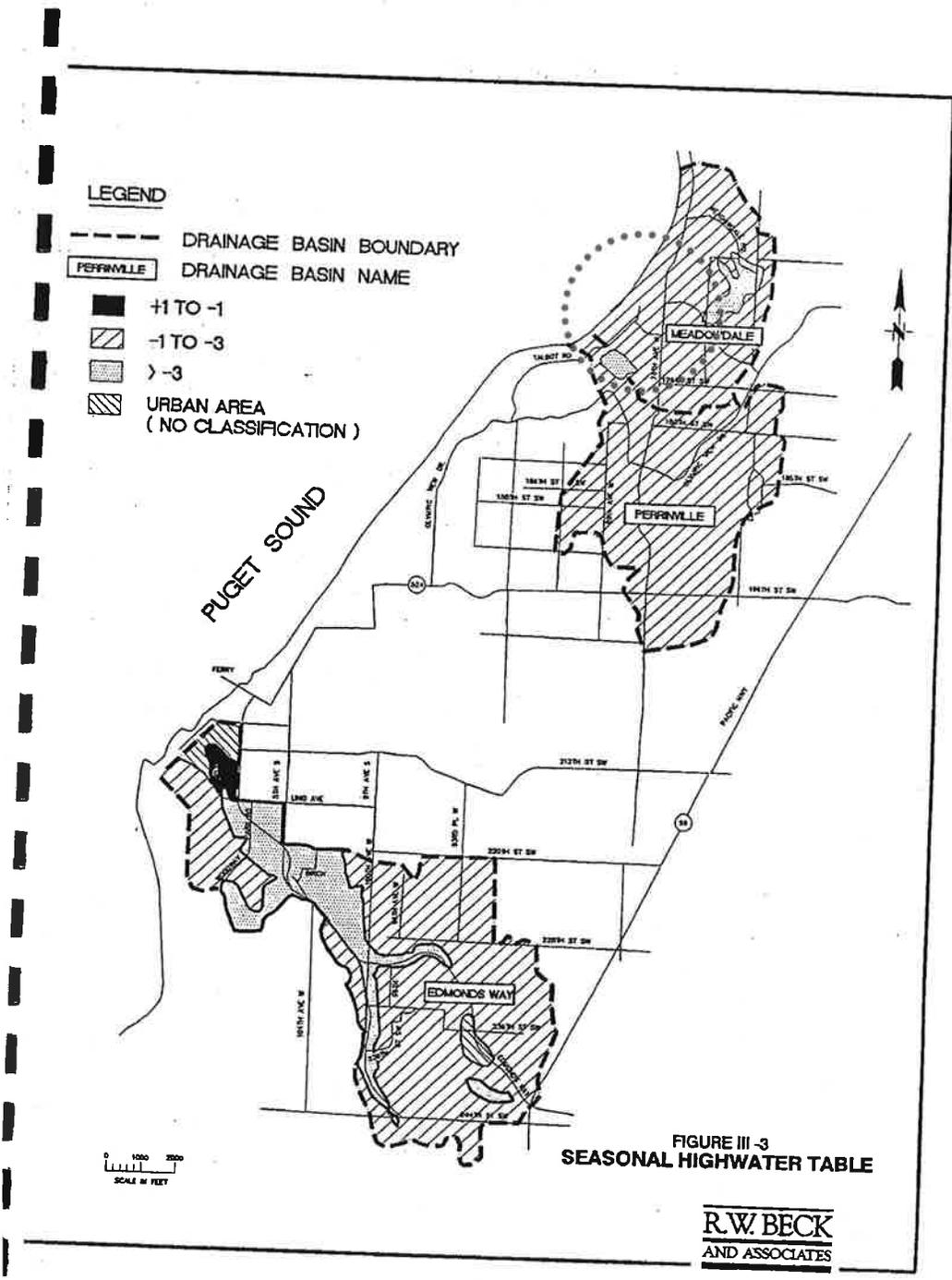
**C-5:** Sensitive Areas Wetlands & Riparian Corridors (Edmonds Drainage Basin Study by RW Beck & Associates, 1991).



**C-6:** Existing Drainage System – Meadowdale Basin (Edmonds Drainage Basin Study by RW Beck & Associates, 1991).



**C-7:** Seasonal High Water Table (Edmonds Drainage Basin Study by RW Beck & Associates, 1991).



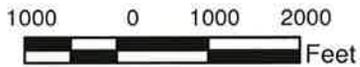
# Soils

## Legend

### Soils

#### Map Unit Name

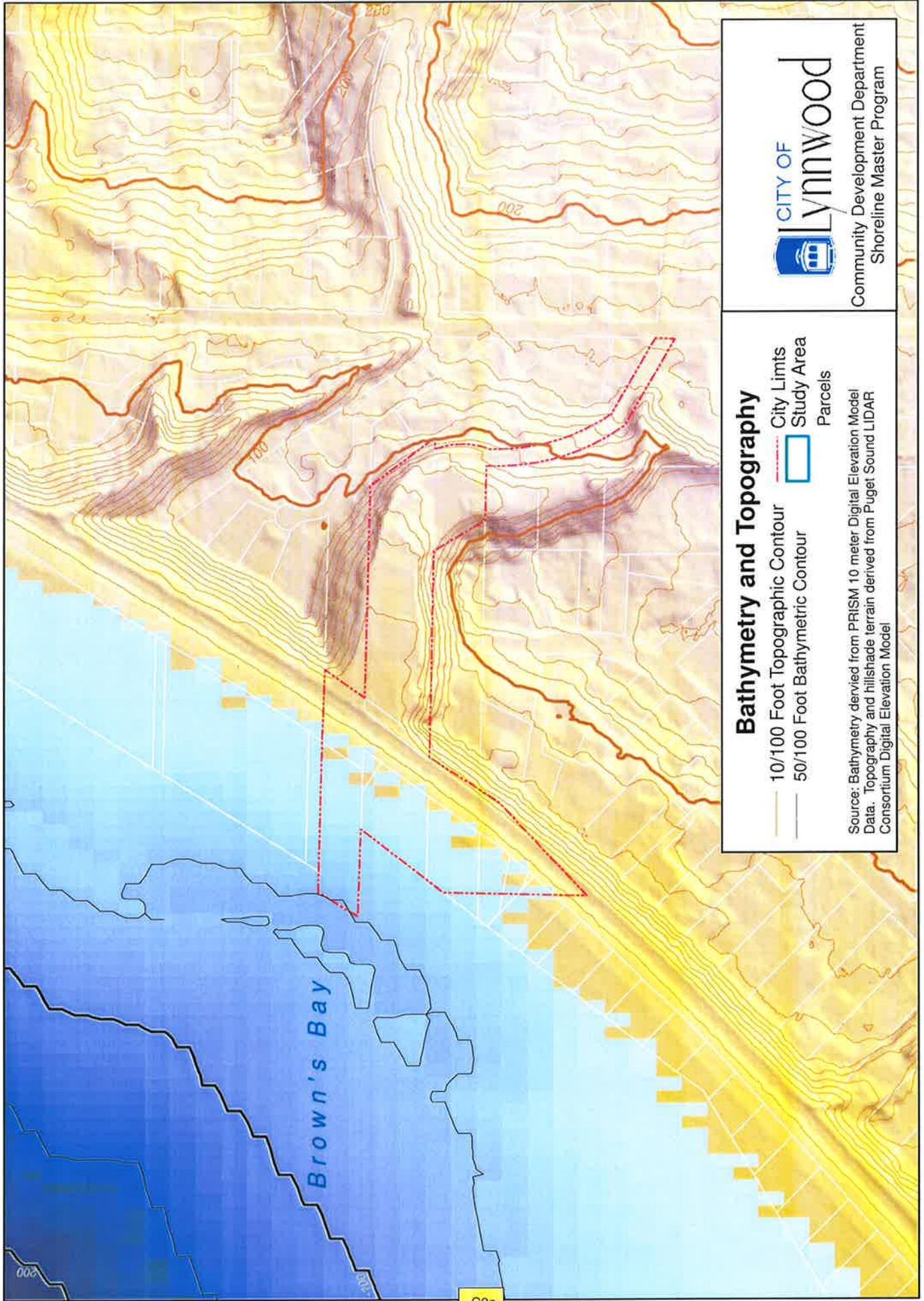
-  Alderwood gravelly sandy loam, 2 to 8 percent slopes
-  Alderwood gravelly sandy loam, 8 to 15 percent slopes
-  Alderwood gravelly sandy loam, 15 to 25 percent slopes
-  Alderwood-Everett gravelly sandy loams, 25 to 70 percent slope
-  Alderwood-Urban land complex, 2 to 8 percent slopes
-  Alderwood-Urban land complex, 8 to 15 percent slopes
-  Everett gravelly sandy loam, 0 to 8 percent slopes
-  Everett gravelly sandy loam, 8 to 15 percent slopes
-  Everett gravelly sandy loam, 15 to 25 percent slopes
-  Fluvaquents, tidal
-  McKenna gravelly silt loam, 0 to 8 percent slopes
-  Pits
-  Tokul gravelly loam, 8 to 15 percent slopes
-  Urban land
-  Water
-  Xerorthents, nearly level
-  City Limits



CITY OF  
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G:\2006\SMP\MapPortfolio\soilsBB.mdx



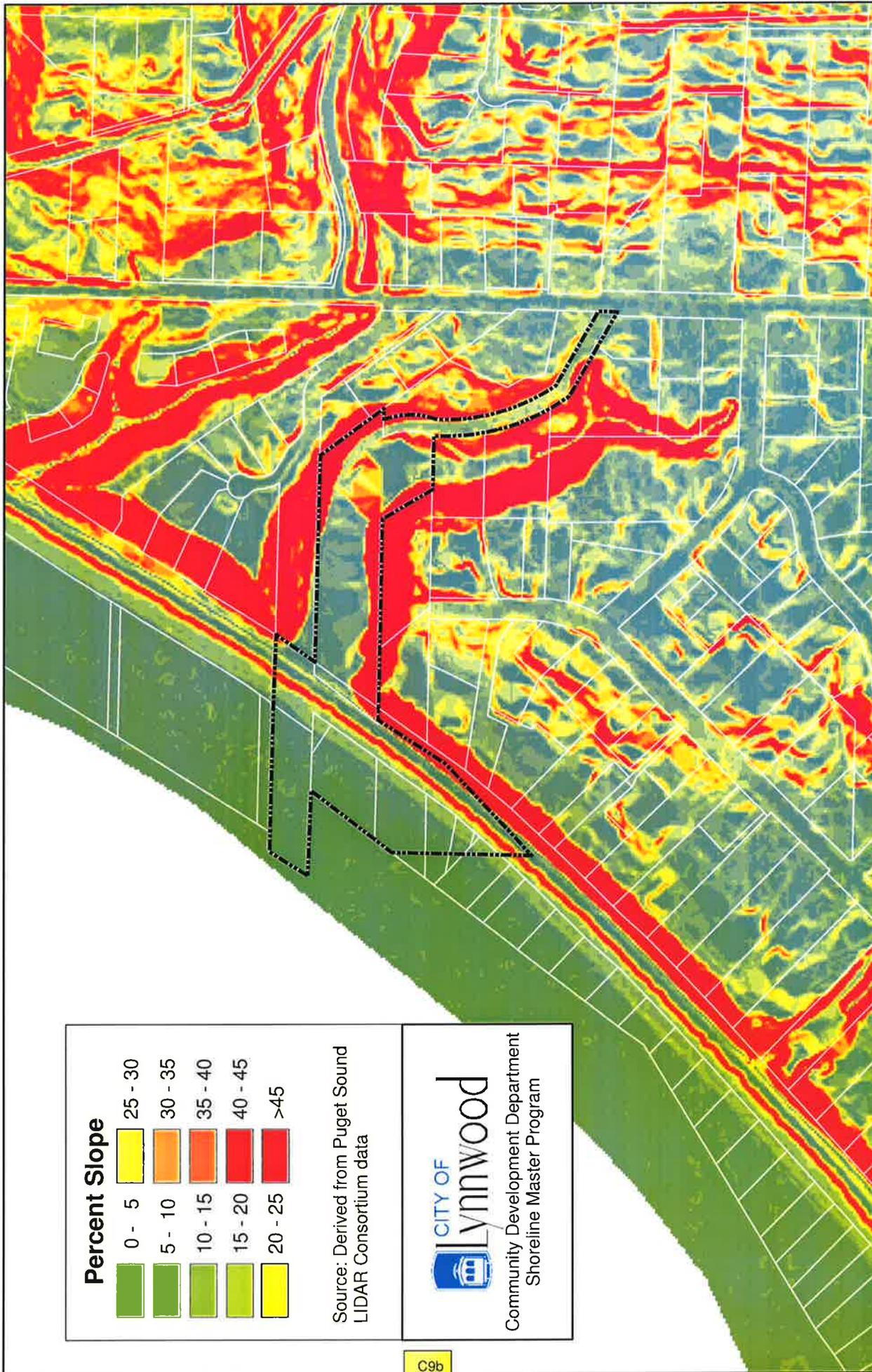
### Bathymetry and Topography

- 10/100 Foot Topographic Contour
- 50/100 Foot Bathymetric Contour
- City Limits
- ▭ Study Area
- ▭ Parcels

Source: Bathymetry derived from PRISM 10 meter Digital Elevation Model Data. Topography and hillshade terrain derived from Puget Sound LIDAR Consortium Digital Elevation Model



Community Development Department  
Shoreline Master Program



C9b

# Selected Fish Species

**Legend**

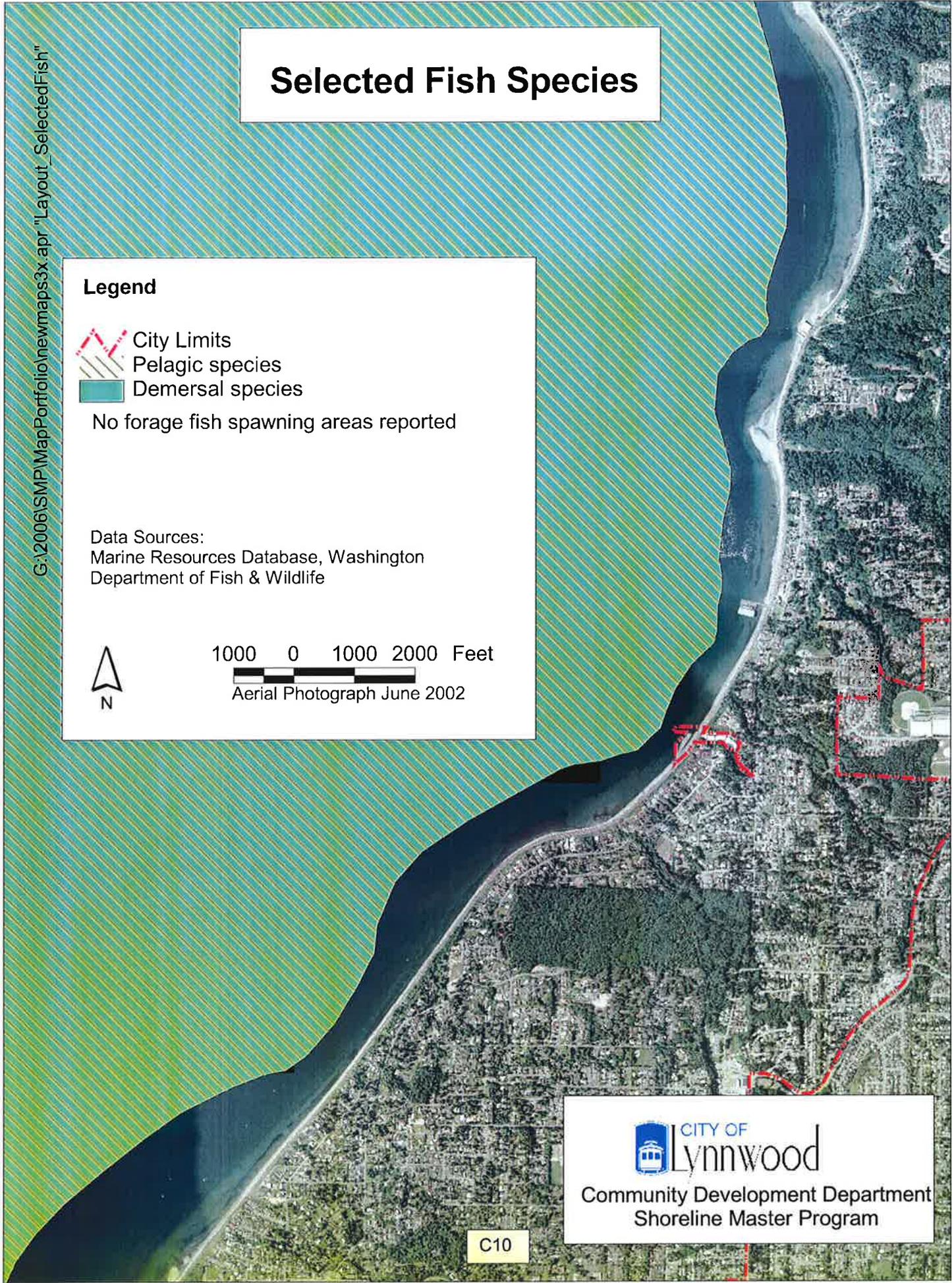
-  City Limits
-  Pelagic species
-  Demersal species

No forage fish spawning areas reported

Data Sources:  
Marine Resources Database, Washington  
Department of Fish & Wildlife

 N

1000 0 1000 2000 Feet  
  
Aerial Photograph June 2002



# Shoreline Slope Stability

## Legend

-  City Limits
- Slope Stability**
- I - Intermediate slope
- M - Modified
- S - Stable slope
- U - Unstable slope
- Uos - Unstable-old slide
- Urs - Unstable-recent slide

Data Sources:  
DOE Shoreline Stability, LIDAR Hillshade



1000 0 1000 2000 Feet



Aerial Photograph June 2002



Community Development Department  
Shoreline Master Program

C11

# Dungeness Crab Distribution & Recreational Harvest



## Marine Shoreline of Snohomish County

- Legend**
- ~ County Boundary
  - ~ Major Roads
  - ~ Railroads
  - ~ Streams
  - ~ WRIA Boundary
  - ~ City Boundary
  - Dungeness Crab
  - Incorporated Areas
  - Parks
  - Recreational Crab Boy



Adult Dungeness crab in eelgrass



Commercial crab fishing boat



Local retail sale of Dungeness crab

**Dungeness Crab Info.**

Dungeness crab is an important local economic resource. From 1996 to 2001, the average annual commercial and total Dungeness crab harvest in Snohomish County was over 120,000 pounds, which had a wholesale value of about \$1 million.<sup>1</sup>

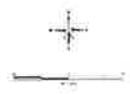
Highly productive and shallow near-shore waters with sandy or muddy bottoms, including estuaries, are critical to Dungeness crab reproduction and growth.

Clams, fish, worms, squid, shells, and snails are important food sources for Dungeness crab.

The Puget Sound Dungeness crab fishery is co-managed by the State of Washington and the tribes.

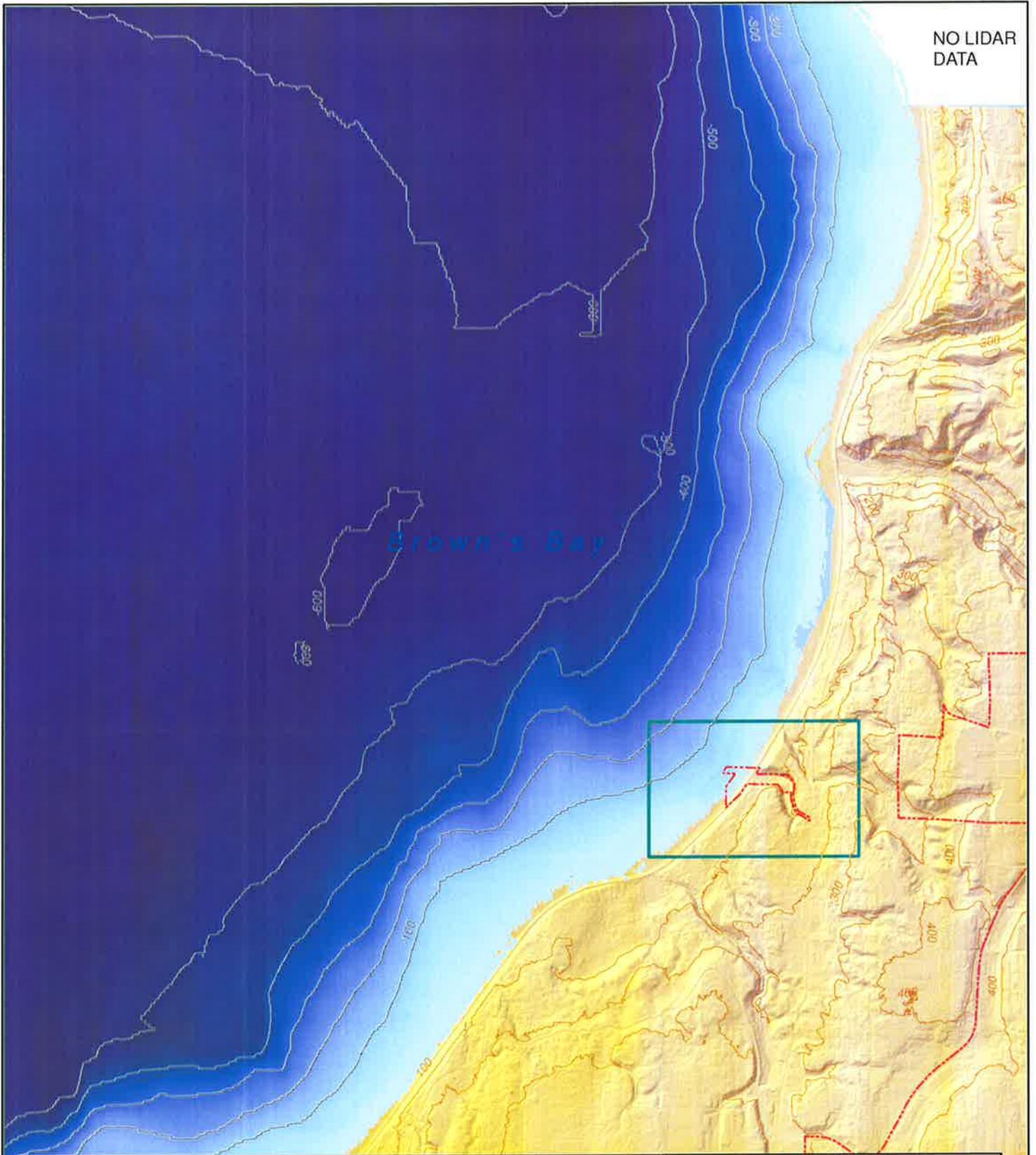


Snohomish County, Washington



1. Snohomish County, Washington, "Dungeness Crab Harvest Statistics," 2002. Available at: <http://www.sno.wa.gov/county/parksandplanning/landuseandplanning/landuseandplanning.htm>

NO LIDAR  
DATA



### Bathymetry and Topography

- 100 Foot Topographic Contour
- 100 Foot Bathymetric Contour
- City Limits
- Study Area

Source: Bathymetry derived from PRISM 10 meter Digital Elevation Model Data. Topography and hillshade terrain derived from Puget Sound LIDAR Consortium Digital Elevation Model



Community Development Department  
Shoreline Master Program



- Documented Salmon Spawning Beaches (4/2004)
- Documented Cutthroat Trout Spawning Beaches (4/2004)
- Documented Freespinner Holding Area (1995)
- Documented Freespinner Spawning Grounds (10/1992)
- County Boundary
- Drainage Basin Boundary
- WRIA Boundary
- Lakes/State Waterways
- Incorporated Area

- Notes:**
- 1) Surf net data are offset slightly into the Sound for clarity purposes.
  - 2) Lack of documentation does not necessarily indicate that any specific site does not have the potential to serve as a spawning site.
  - 3) All users of this map should seek the existence of qualified professionals and refer to the original data source to ensure that such users possess complete, precise, and up-to-date information on forage fish spawning distribution and water body location.
  - 4) Please refer to the text of this report for further information on the interpretation and use of this graphic.

**Data Source:**  
Washington Department of Fish and Wildlife (WDFW)

**Map Produced By:**  
GR and VML Communications, Inc., WFL  
King County Department of Natural Resources

**File Name:**  
0111078 Foragefish.rakp



Figure 19  
**Known Forage Fish Spawning Areas**  
*State of the Nearshore Report*





- Trawl Survey-Dungeness Crab (1987-1996)
- Interstitial Hard Shell Clams (1992)
- Geoduck (2000)
- Dungeness Crab (1992)
- Water Column Dwelling Shrimp (1992)
- County Boundary
- Drainage Basin Boundary
- WRIA Boundary
- Lakes/Major Waterways
- Incorporated Area

**Notes:**

- 1) These data likely underestimate the true distribution of invertebrate areas because surveys are incomplete
- 2) All users of this map should seek the assistance of qualified professionals such as surveyors, hydrologists, or fishery biologists as needed to ensure that such users possess complete, precise, and up-to-date information on selected invertebrate distribution and water body location

**Data Sources:**  
 Trawl Survey: Foint/Wayne Falson,  
 Washington Department of Wildlife (WDFW)  
 Species Data: Marine Resources Database,  
 Washington Department of Wildlife (WDFW)

**Produced by:**  
 Cheryl Kunkle, mrc@wdfw.wa.gov, 2018  
 King County Department of Natural Resources

**File Name:**  
 18102218wrtb01nysa.k.0

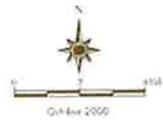


Figure 20  
**Distribution of Selected Invertebrates**  
*State of the Nearshore Report*



# Geoduck Distribution

## Legend

-  City Limits
-  Geoduck

Data Sources:  
Marine Resources Database, Washington  
Department of Fish & Wildlife



1000 0 1000 2000 Feet



Aerial Photograph June 2002



Community Development Department  
Shoreline Master Program

# Salmonid Use of Nearshore Environment

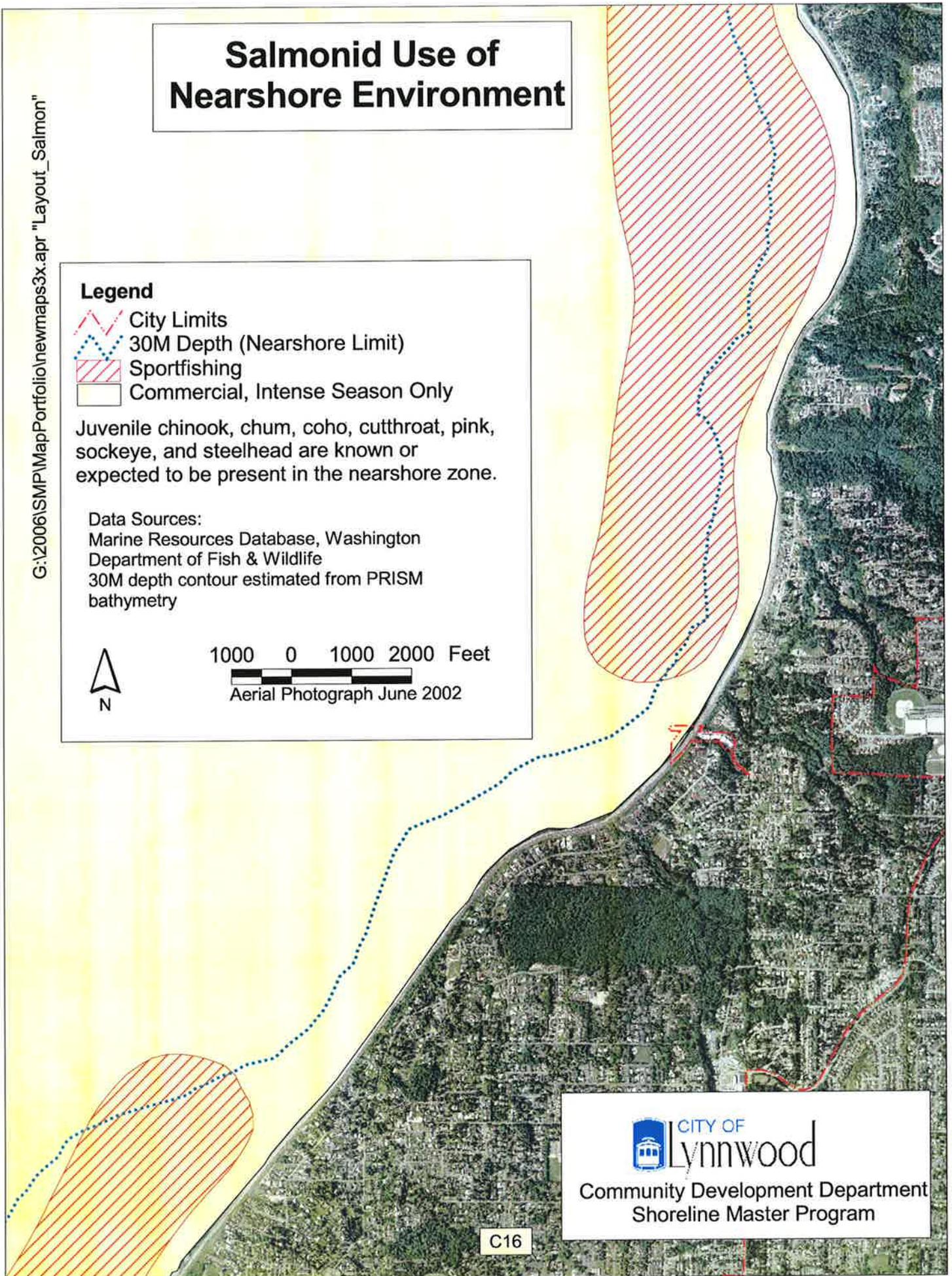
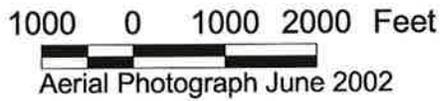
## Legend

-  City Limits
-  30M Depth (Nearshore Limit)
-  Sportfishing
-  Commercial, Intense Season Only

Juvenile chinook, chum, coho, cutthroat, pink, sockeye, and steelhead are known or expected to be present in the nearshore zone.

### Data Sources:

Marine Resources Database, Washington Department of Fish & Wildlife  
30M depth contour estimated from PRISM bathymetry



Community Development Department  
Shoreline Master Program

# Appendix C

## Shoreline Inventory, Analysis, and Characterization

December 14, 2006

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# Shoreline Inventory, Analysis, and Characterization

December 14, 2006

## 1.0 INTRODUCTION

### 1.1 Purpose and Background

The purpose of this study is to conduct a baseline inventory and assessment of natural and built conditions in the City of Lynnwood's shoreline jurisdiction to provide a basis for preparation of the City's Shoreline Master Program. The findings of the study will provide a framework for establishing the City's shoreline environment designations under the Shoreline Management Act (SMA), and developing the shoreline management policies and regulations specifically suited for land uses and conditions within those environments.

The City has been assisted in the preparation of this study through technical guidance provided by staff of the Washington State Department of Ecology (Ecology) either by direct contact or through use of printed and electronic materials prepared by them. Also, the City received financial assistance in the amount and form of a \$37,800 grant provided by the Washington State Department of Ecology (Ecology). The grant was provided by means of state funding authorized to support planning under the Shoreline Management Act (SMA).

### 1.2 Shoreline Jurisdiction

Under the State SMA, the City's shoreline jurisdiction includes areas within the City limits that are 200 feet landward of the Ordinary High Water Mark (OHWM) and waters that have been designated as "shorelines of statewide significance" or "shorelines of the state". The area of the City of Lynnwood located within shoreline jurisdiction is a small part of the city which is not connected to the main body of the city (see Map C-4, Appendix B). It is an area of about four acres located on the Puget Sound shoreline and is the location of the city's wastewater treatment plant. The length of the Lynnwood shoreline at the OHWM is approximately 700 feet. This area of Lynnwood is effectively an enclave within the City of Edmonds. While the Edmonds city limits do not wrap around this Lynnwood territory entirely (with the western boundary of this part of Lynnwood being the Puget Sound), Edmonds does surround this area of Lynnwood on the north, east, and south (see Map A-1, Appendix B). Street access to this part of Lynnwood is through the City of Edmonds. In addition to providing sewage treatment services to most of Lynnwood, the wastewater treatment plant also provides sewage treatment services to the area of the City of Edmonds surrounding the plant. The entrance to the treatment plant site is west of 76<sup>th</sup> Street SW at about 168<sup>th</sup> Street SW.

Additionally, there are two areas within the City's adopted Urban Growth Area (UGA) which are shoreline jurisdictional areas. These areas are currently under Snohomish County shoreline jurisdiction, but would be under City of Lynnwood jurisdiction if annexed. One of these areas is the Meadowdale Park area located along the Puget Sound shoreline approximately one mile north of the City's wastewater treatment plant. The other area is the western shoreline of Martha Lake which is northeast of the current city limits.

The potential for inclusion of the Meadowdale Park area in the incorporated limits of Lynnwood is not deemed to be likely. The recent actions of the City Council in responding to requests for

annexation indicate that there is little interest in adding more territory to the city unless there is a significant positive tax revenue advantage to the city. This area offers no such advantage.

The potential for inclusion of the Martha Lake area in the incorporated limits of Lynnwood is more likely than the Meadowdale Park area because the potential for net revenue enhancement does exist in this area. However, annexation of this area is complicated by the fact that the area is claimed by both Lynnwood and Mill Creek as areas planned for future city annexation. The matter is pending resolution.

Given the uncertainties of these two UGA areas being included within the City of Lynnwood in the foreseeable future, this inventory and assessment has focused only upon the area under current Lynnwood jurisdiction. Even so, much of the information collected and analyzed for the Lynnwood shoreline is applicable to the Meadowdale Park area. The recently updated Snohomish County SMP inventory provides information for these two UGA areas. Because of the uncertainty of when, if ever, that these two UGA areas will be annexed to the City of Lynnwood and because they are covered within the County SMP the Lynnwood SMP will not cover these two areas. Should either of these areas be annexed to the City of Lynnwood, the City will amend its SMP at that time to provide for policy and regulatory coverage.

### **1.3 Methods**

The inventory and analysis was conducted by City of Lynnwood staff, with technical assistance provided by Ecology staff. No consultant assistance was utilized. The inventory was conducted by means of field observations, office visits, telephone and email contacts, and by researching Internet websites.

The Ecology website provided a large volume of useful material. Other websites found to be particularly helpful were the Washington State Department of Natural Resources, Snohomish County Marine Resources, and King County Department of Natural Resources webpages for the Nearshore Reconnaissance Assessment of the Eastern shore of Central Puget Sound.

The research process followed these steps. Pertinent SMA regulatory guidance was obtained and studied. Available technical materials, both text and mapped, were obtained and studied. Field observations of the area under Lynnwood shoreline jurisdiction, and adjacent areas, were made and photographs taken. Recent shoreline inventory and assessment examples were obtained and studied for additional guidance. These examples along with the Ecology recommendations on report format and content guided the preparation of the shoreline analysis and assessment report. The Ecology staff comments on the November 2004 draft Lynnwood Shoreline Master Program (SMP) have been particularly helpful in revising and expanding this edition of the draft SMP.

## **2.0 REGIONAL OVERVIEW**

When speaking of a region the area being referred to must be geographically described. There are differing ways of describing the regional context of the small geographic area of the Lynnwood shoreline jurisdiction. This area is only a small part of the whole Puget Sound region. But it is influenced by many of the processes that operate within this larger context. For an understanding of these larger regional processes, Lynnwood staff has utilized a number of documents. Two documents have been particularly helpful in understanding the shoreline and marine resources relevant to the Lynnwood shoreline. The first is a document published in May 2001 for the King County Department of Natural Resources and entitled, *Reconnaissance*

*Assessment of the State of the Nearshore Ecosystem: Eastern Shore of Central Puget Sound, including Vashon and Maury Islands.* This report will simply refer to that document as the *Nearshore Reconnaissance Assessment*. The second document of particular assistance was published in September 2001, prepared by John Kerwin of the Washington Conservation Commission and entitled, *Salmon and Steelhead Habitat Limiting Factors Report for the Cedar-Sammamish Basin (Water Resources Inventory Area 8)*. This report will simply refer to that document as the *Habitat Limiting Factors Report*.

Although the *Nearshore Reconnaissance Assessment* covers only the central portion of the Puget Sound, and the *Habitat Limiting Factors Report* covers only Watershed Resources Inventory Area 8 (WRIA 8), the Cedar-Sammamish-Lake Washington watershed, the geographic areas covered by those documents are sufficient for the purposes of this report. Within the Central Puget Sound regional context, there are smaller geographic sub units within that region. The next level down in geographic scale, for our purposes, is the watershed basin. So while the Lynnwood shoreline area is within the Central Puget Sound region, it is also located within the Cedar-Sammamish-Lake Washington watershed basin, or WRIA 8. The next level down is the shoreline reach. And, within the reach there are sub-reach areas, and then finally the specific Lynnwood shoreline site area.

That portion of the Central Puget Sound shoreline belonging to WRIA 8, the Cedar-Sammamish-Lake Washington watershed, runs from Elliot Point (in Mukilteo) on the north to West Point (at the south end of Shilshole Bay) on the south, a distance of 23.5 miles. The Cedar and Sammamish Rivers drain to Lake Washington and from there out to the Puget Sound. Within this drainage basin there is a narrow band of land along the Puget Sound shoreline that contains small streams which drain directly to the Sound. The Lynnwood shoreline jurisdiction is part of this narrow band of land and contains one of those shoreline streams. The stream is not named. Map A3 in Appendix B shows the location of the Puget Sound Drainage Sub-basin within which the Lynnwood shoreline is located.

The *Nearshore Reconnaissance Assessment* assigns Shoreline Reach Number 1 to the shoreline containing the Lynnwood jurisdiction. This reach of the Puget Sound shoreline starts at Elliot Point in Mukilteo and extends southward to Edwards Point in Edmonds, a distance of 11.5 miles. The two other shoreline reaches within WRIA 8 are: Reach Number 2 running from Edwards Point to Meadow Point (8.5 miles); and, Reach Number 3 running from Meadow Point to West Point (3.5 miles). Brown's Bay is a sub-reach within Reach Number 1 which has a shoreline length of about 1.5 miles. And, as mentioned before, the Lynnwood shoreline is only 700 feet of this Brown's Bay sub-reach.

## **2.1 Regional Influences**

The City of Lynnwood is located within the Puget Lowland Ecoregion in Washington State. This ecoregion lies between the Coastal Range and the Cascade Mountains. The area is relatively flat. Soils in the area are composed of alluvial and lacustrine deposits, which are of glacial origin north of Centralia. Because of the rain shadow effect of the mountains bordering this ecoregion to the west, average rainfall is moderate compared to the ecoregions to the east and west. River flows are sustained by streams with headwaters in the adjacent mountains. Peaks flows can occur between fall and spring, depending on snow pack and storm events. Forested areas support dense stands of conifers (western hemlock, Douglas-fir, and western red-cedar) and hardwoods. Much of the land in this region has been converted to urban, industrial, and agricultural uses.

Shorelines reflect the interactions between the physical and biological characteristics of the regional setting. As a starting point in the investigation and understanding of these interactions, it is helpful to describe the most important regional influences. The following sections will summarize the climate, topography (and geomorphology), and native vegetation of the region to set the context for the major natural influences on the shoreline.

### **2.1.1 Climate**

Puget Sound has a climate characterized by relatively dry summers and mild wet winters. Climatologists use a climate classification system named the Koeppen-Geiger Climate Classification. Using that classification system, the climate in the Puget Sound is classified as a Mediterranean climate (a Csb code is used to designate the Mediterranean climate). Although not geographically close to the Mediterranean Sea, the Puget Sound shares many of the same climate characteristics with some of the land area surrounding the Mediterranean. Warm moisture-laden air masses from the Pacific Ocean keep air temperatures fairly even throughout the year and provide moderate to heavy rainfall from November through April. The annual precipitation is between 30 to 40 inches in the Central Puget Sound area.

The Lynnwood shoreline lies within an area which experiences a weather phenomenon known as the Puget Sound Convergence Zone. This zone is a band of cloudiness and precipitation in northern and central Puget Sound formed when winds off the Pacific Ocean are split by the Olympic Mountains, pass both to the north and south of that range, and then collide in this convergence zone. The convergence zone's favorite location tends to be an east-west line that extends over the central and south Snohomish County area (Lynnwood, Edmonds, and Everett are the prime spots). However, the zone can move depending on the strength of each wind component. If one wind component becomes stronger than the other, it will push the location of the zone in the direction of flow of the dominant wind. The zone creates large weather contrasts in Puget Sound, with warm temperatures and clear skies in the sections outside the zone, but low clouds, rain and cooler temperatures within the zone. Although the zone can occur at any time of the year, it seems to have a yearly and a daily cycle. The convergence zone effect is most frequent during the late spring and early summer months, and during the afternoon and early evening.

### **2.1.2 Topography (and Geomorphology)**

The landscape of the Puget Lowland is the product of a long history of mountain building and subsidence, glaciations and volcanism, erosion and deposition. The terrain of the Lowland is made up of a series of rolling plateaus cut by steep-sided valleys. The drift plains slope gently west and northwest from the Cascade Range foothills (approximately 800 feet elevation) to bluffs overlooking Puget Sound. These plateaus are built of unconsolidated sediment deposited during glacial and nonglacial periods in the past two million years. The fill ranges from a thin veneer to a depth of 3,600 feet in the deepest basin. The surface features of the drift plains are mostly inherited from the ice sheet that last flowed over them about 13 to 16 thousand years ago. These features are elongated hills (drumlins) which are arranged in the direction of ice flow; and, marshes and lakes formed in closed depressions between the hills and within late-glacial outwash channels.

Several large valleys cross the lowlands. The longest and deepest is the Puget Sound. The other valleys are the Lake Washington-Duwamish-Puyallup, Sammamish, and Snoqualmie troughs. All these valleys trend roughly north-south, likely through pre-existing valleys. They are mostly infilled by drift from the most recent glaciation. The trough shapes reflect the direction of ice

flow or sub-glacial rivers in the bottom of the continental glacier. In contrast, canyons of the Cedar, Green, and White Rivers were excavated by streams flowing from the retreating ice sheet and down from the Cascades. The two types of large valleys have largely controlled postglacial drainage in the lowlands. The rivers flow in them to the large lakes and Puget Sound, and small streams flow to them carving innumerable ravines in the edges of the plateaus.

The upland topography along the shoreline within Reach Number 1 varies considerably. Along much of the shoreline in this reach, there is only a narrow margin of flat land next to the Sound. For the most part, bluffs of at least 100 feet in elevation, with heights of 300 feet not being unusual, characterize this area. However, there are exceptions to this general rule. The area in Edmonds, locally called the Edmonds Bowl, is one of the exceptions. This area is characterized by a gentle slope upland from the Sound. The Lynnwood shoreline follows the general rule of a narrow margin of flat land with a backdrop of steep bluff. North-south ridges and valleys characterize the uplands above the Edmonds-Lynnwood shoreline. The elevations of the ridges range in maximum height from 400 feet to over 600 feet.

### **2.1.3 Native Vegetation**

Primary plant succession began after the glaciers receded and developed into the climax plant community that greeted early explorers and sustained indigenous native people. Only remnants of those forests remain. However, in the lowlands around Puget Sound Douglas-fir trees remain the most important species of this zone. Western Red cedar and Western Hemlock are found mixed in with Douglas-fir. Bigleaf Maple is found on moist sites. Madrone is common along the shoreline and on drained, sunny slopes. Red Alder is common after logging disturbance on moist sites. Understory plant communities include: Sword fern, Salal, Oregon grape, Three-leaved Foamflower, Evergreen blueberry, and Pacific Rhododendron.

Poorly drained sites with swamp or bog (wetlands) communities are abundant in this zone. Wooded riparian communities are usually dominated by Black cottonwood, Bigleaf Maple, and Red Alder. Shorelines are often lined with a thin band of Madrone. Coastal bluffs often support Madrone or Douglas-fir/Madrone stands. Introduced plants include numerous species of blackberry, Scotch Broom, and non-native hardwoods.

## **2.2 Critical Issues**

This section identifies already known critical issues for the watershed region. Identification of these issues helps to focus the scope of the inventory and assessment. These issues will be listed in two categories: regulatory mandates, and major land uses that affect the shoreline.

### **2.2.1 Regulatory Mandates**

Regulatory mandates from both the federal government and state government are critical issues that must be taken into account in any planning effort within the watershed region and specifically for the Lynnwood shoreline. The most recent and significant federal mandate involves the listing by the National Marine Fisheries Service (NMFS) of two species of fish as “threatened” under the Endangered Species Act. The Chinook Salmon and Bull Trout are the two fish species having a threatened status within the watershed region. Other significant federal mandates that must be dealt with involve pollution control standards for wastewater and stormwater.

The most significant state mandates affecting planning for the watershed region and the shoreline continue to be the Growth Management Act (GMA) and the Shoreline Management Act (SMA). The requirements for protection of critical areas within GMA are particularly relevant to shoreline planning and protection. And, the requirements within GMA for increasing urban density are particularly challenging to do so without increasing environmental harm.

### **2.2.2 Major Land Uses**

One of the most significant land uses affecting the shoreline in the watershed region, and especially within the Reach Number 1, is the location of the Burlington Northern Santa Fe railroad along the shoreline. This transportation facility has permanently altered ecosystem functioning within this shoreline reach. The railroad track bed is built on rock fill that effectively functions as a seawall revetment. Native vegetation and wildlife habitat has been removed within this corridor, and wildlife access to remaining habitat has been altered. And, the supply of sediment and woody debris to the beach and shoreline has effectively been stopped.

The use of the ravine in which it is situated by the Lynnwood wastewater treatment plant is also a significant regional land use. The plant sits on top of a former natural stream. The stream is channeled through a pipe in the lower one-third of the stream length.

There are other major land uses within this shoreline reach that have had, or may yet have, a significant impact on the functioning of the natural processes of the shoreline. The ferry terminal at Edmonds appears to interrupt normal northerly littoral cell drift at that point. The wastewater outfalls from the Lynnwood and Edmonds wastewater treatment plants have a potential for impacting the shoreline, as does the yet to be built outfall for King County's Brightwater wastewater treatment plant. The commercial development of the Edmonds waterfront has had an impact on the shoreline.

## **2.3 Current Regulatory Framework Summary**

This section briefly summarizes the framework of local, state, and federal regulations applying to the area of shoreline jurisdiction.

### **2.3.1 City of Lynnwood Comprehensive Plan**

The area of shoreline jurisdiction has a Public Facilities designation on the Land Use Plan map in the City of Lynnwood Comprehensive Plan. The Land Use Plan map provides the general guidance on future land use pattern and is implemented by the Official Zoning Map.

### **2.3.2 City of Lynnwood Zoning Code**

The area of shoreline jurisdiction has a P-1 Zone designation on the Official Zoning Map of the City of Lynnwood. The zoning code provides for the basic regulation of land uses and is supplemented by the policies and regulations contained in the Shoreline Master Program (SMP). Where there is inconsistency or conflict between the two sets of regulations, the SMP is the primary regulation.

### **2.3.3 City of Lynnwood Environmentally Critical Areas Code**

Environmentally critical areas in Lynnwood are regulated under Lynnwood Municipal Code Chapter 17.10. The only known environmentally critical areas within shoreline jurisdiction are

the steep slopes of the Puget Sound bluff and the ravine. These areas are covered by the regulations contained in LMC Chapter 17.10. The environmentally critical areas regulations have been recently reviewed and updated to conform to state laws and rules.

### **2.3.4 State and Federal Regulations**

Development in or above marine environments generally requires permits from federal and state agencies. Permits are usually required when impacts to navigable waters or fish and wildlife habitat are anticipated. The U.S. Army Corps of Engineers (USACE), Ecology, and the Washington State Department of Fish and Wildlife (WDFW) regulate development activities waterward of MHHW for tidal waters. In addition, the National Oceanic and Atmospheric Administration (NOAA Fisheries) and U.S. Fish and Wildlife Service (USFWS) must concur that any project requiring federal approvals (a USACE permit, for example) is consistent with the Endangered Species Act (ESA). These agencies will require that proposed projects avoid or offset project impacts on certain fish and wildlife species through design and/or environmental controls and/or restoration activities.

## **3.0 REACH-LEVEL ANALYSIS**

The previous sections have focused primarily on the larger regional scale. The information presented in those sections should provide sufficient context for a more intensive look at physical, biological, and land use information at smaller scales. Our primary focus in the following sections will be on a reach-level scale. However, in some instances the focus of the report will be at an even smaller scale: the City of Lynnwood shoreline. (**Note:** In most other shoreline management planning projects, the reach scale would be smaller than the shoreline jurisdiction. In Lynnwood, because of the limited length of shoreline jurisdiction, the entire shoreline jurisdiction is contained within and is only a small part of a single reach. That reach is Reach Number 1.)

There are two primary objectives to be achieved by this reach-level analysis. First, to summarize critical physical and biological resources and land use for the shoreline reach. Second, to identify key opportunities for protection, restoration, public access, and use.

The following sections of this report draw heavily from the *Nearshore Reconnaissance Assessment*, and the *Habitat Limiting Factors Report*. For more detail on any of the topics covered, the reader is directed to these important sources. We are indebted to those who produced these groundbreaking documents.

### **3.1 Critical Physical and Biological Resources and Land Use**

This section makes use of and refers to maps and other graphic materials contained in Appendix B, the Presentation Map Portfolio. The general geographic frame of reference is shoreline Reach Number 1, which extends from Elliot Point in Mukilteo to Edwards Point in Edmonds. However, in certain instances, the geographic scale used in the summary may be larger or smaller depending upon the issue and availability of information.

#### **3.1.1 Summary of Critical Physical Resources**

Section 2 of this report has given a regional overview on the subjects of climate, topography (and geomorphology), and vegetation. In this section, some of the same subjects are covered for a

smaller area and other subjects are added. The maps in Appendix B which are pertinent to this summary are: B8, Shoreline Type; B9, Drift Cells; C1, Sensitive Areas; C2, Geologically Hazardous Areas; C3, Frequently Flooded Areas; C5, Sensitive Areas Wetlands and Riparian Corridors; C6, Existing Drainage System; C7, Seasonal High Water Table; C8, Soils Classification; C9a, Bathymetry and Topography; C9b, Percent Slope; C11, Slope Stability; and, C13, Bathymetry and Topography.

The shoreline within Lynnwood jurisdiction is classified as a narrow sand and gravel beach. On either side of the ravine in which the Lynnwood wastewater treatment plant is located, there are Puget Sound coastal bluffs. Were it not for the location of the BNSF railroad along this reach of shoreline the shoreline type would be classified as Eroding Bluff. Wave action no longer works on the toe of the bluff so erosion and deposition have virtually stopped. The shoreline drift in this area is from south to north. Within the shoreline jurisdiction the area is not subject to frequent flooding, there are no existing wetlands, and the seasonal high water table is in the range of one to three feet in depth. The soils are Alderwood-Everett gravelly sandy loams with 25 to 70 percent slopes. Slope stability mapping indicates no severe problems in the jurisdiction.

### **3.1.2 Summary of Critical Biological Resources**

The maps in Appendix B which are pertinent to this summary are: B6, Eelgrass and Spartina; B10, Eelgrass/Kelp; B11a, Sonar Survey Vegetation Type; B11b, Sonar Survey Substrate and Vegetation; B12, Fucus and Ulva; C10, Selected Fish Species; C12, Crab Distribution; C14, Forage Fish; C15a, Invertebrates; C15b, Geoduck; and, C16, Salmonid Use of the Nearshore Environment.

Eelgrass is a particularly important plant in the nearshore marine environment. Its productivity exceeds that of most other aquatic plants. Organic carbon produced by eelgrass is especially important in driving the nearshore marine food web of Puget Sound. The existence and health of eelgrass within the Brown's Bay nearshore is not consistently reported. Map B6 indicates no eelgrass in Brown's Bay, with patchy eelgrass starting north of the Bay. The sonar mapping of Map B11b indicates that there is eelgrass within Brown's Bay. The *Habitat Limiting Factors Report* states that Brown's Bay is absent eelgrass, absent bull kelp, has patchy rockweed, has patchy sea lettuce, and is not identified as a forage fish-spawning beach. The inconsistency on eelgrass deserves a more detailed survey to determine both the current existence of eelgrass and any limiting factors for propagation.

There are several anadromous fish streams within the Puget Sound drainage sub-basin. Lund's Gulch Creek to the north of the Lynnwood shoreline jurisdiction, and Perrinville Creek to the south are anadromous fish streams. Both of these streams support Coho Salmon and Cutthroat Trout. Lund's Gulch Creek also supports Steelhead Trout. The small stream running through the Lynnwood ravine is unmapped and unnamed. It is unlikely, given the long piped nature of the lower part of the stream, that the stream is home to anadromous fish. Map C16 indicates that the nearshore marine environment of Brown's Bay and all of Reach 1 is used by salmonids. Any steps that can be taken to improve the health of the nearshore marine environment will be beneficial to the salmonid fish.

### **3.1.3 Summary of Critical Land Use**

The maps in Appendix B which are pertinent to this summary are: B1, Shoreline and Adjacent Land Use Patterns; B2, City of Edmonds Zoning Map; B3, Existing Structures; B4, Previous

Surface; B5, Sewer Lines; B7, Shoreline Modifications; C8x, Generalized Land Use; and, D1, Photo of Pilings.

The area within Lynnwood shoreline jurisdiction is considered to be fully developed for urban uses. This is true of most of the Brown's Bay area. No significant changes to land use in the Lynnwood shoreline jurisdiction or the immediate Brown's Bay area are anticipated.

### **3.2 Ecological Functions and Eco-system Wide Processes**

The ecosystem of the Puget Sound drainage sub-basin is the ecosystem of most significance to the Lynnwood Shoreline Master Program. More particularly, it is that portion of the sub-basin containing Brown's Bay, the central part of the sub-basin, that is most significant to understanding the ecological functions most pertinent to SMP preparation.

The Puget Sound drainage sub-basin is part of the Cedar-Sammamish-Lake Washington watershed (WRIA 8). However, there is no freshwater hydrological connection between the sub-basin and the rest of the watershed. The only hydrological connection that exists is Puget Sound.

Nine streams within Reach 1 provide habitat for anadromous fish. Several of the other streams may have potential for restoration of habitat that would allow anadromous fish to return to those streams. The health of the anadromous fish population in this small ecosystem is an indicator of the general health of the ecosystem. And, in general, the health of this ecosystem is only fair. Urbanization has taken a toll on the natural environment.

The single largest disruptor of ecological functions within the Reach 1 ecosystem is the location of the BNSF railroad along the shoreline, and the manner in which it is constructed. The railroad has permanently removed shoreline habitat, virtually eliminated the source of large woody debris and source material for beach replenishment, and continues to restrict animal access between the beach and the upland. Any steps to restore lost ecological functions would need to attempt to mimic replacement of the lost natural processes.

The location of the Lynnwood wastewater treatment plant is itself a disruptor of ecological functions. The lower portion of the unnamed stream that drains the ravine within which the plant is located is contained within a drainage pipe. This situation causes loss of ecological function. This small drainage basin is completely urbanized. Development density is typical of low-density suburban residential development. With the exception of the wastewater treatment plant the land use pattern is exclusively single-family residential.

### **3.3 Data Gaps**

#### **Axioms of Knowledge**

***"As we know, there are known knowns. There are things we know we know. We also know there are known unknowns. That is to say we know there are some things we do not know. But there are also unknown unknowns, the ones we don't know we don't know."***

Donald H. Rumsfeld, Secretary of Defense, February 12, 2002

Previous sections of the report have presented what we know about the Lynnwood shoreline area. This section of the report will touch on and list some of the discovered "known unknowns", or

data gaps. The third Rumsfeld axiom covers a category of “unknowledge” beyond the scope of the SMP guidelines...and most likely beyond the capacity of humankind to know.

The *Habitat Limiting Factors Report* contains an extensive listing of data gaps. What we know we do not know appears to exceed what we know about the nearshore environment of the central Puget Sound. The listing of data gaps is so extensive it is beyond the scope of this report to fully reproduce that information. The reader of this report is referred to the *Habitat Limiting Factors Report* for the detailed listing of data gaps. It should be sufficient for this report to summarize and highlight the more significant data gaps.

Data gaps specific to the streams of WRIA 8 draining directly to Puget Sound are these:

- *Data on water quality, hydrology, floodplain connectivity, large woody debris, sediments, and riparian conditions and their impacts to salmonids in these streams is scarce or lacking.*
- *Fish passage barriers have not been fully inventoried.*
- *The level and extent of chemical contamination and increases in nutrient loading have not been ascertained.*

Conclusions on the whole nearshore marine habitats of WRIA 8, including data gaps, are summarized as:

- *The nearshore ecosystem plays a critical role in support of a wide variety of biological resources, many of which are important to the people of the region for commercial, recreational, cultural, aesthetic, and other social values.*
- *The viability of the nearshore system processes that support these resources has been damaged and continues to be threatened by a wide variety of human-induced changes.*
- *The cumulative effects of multiple stressors, or individual stressors over various temporal and spatial scales, on the nearshore system are unstudied in a systematic way.*
- *The interactive effect of human-caused changes and natural variability on processes and resources has not been studied.*
- *Monitoring the performance of restored systems and baseline studies in reference areas are critical to the development of appropriate restoration strategies.*
- *There are numerous data gaps in our understanding of the nearshore ecosystem that directly inhibit or weaken our ability to make informed decisions regarding management and restoration of the system. Monitoring programs are limited and have been inadequate for providing the level of scientific information necessary for informed resource management decisions.*
- *There is a general lack of coordination in the collection, analysis, and dissemination of nearshore data.*
- *The nearshore system of Puget Sound needs more focused attention with funded research.*
- *The nearshore must be addressed from an ecosystem perspective.*
- *Action is needed in the nearshore.*
- *Particular attention and protective standards need to focus on communities, populations, or other elements of the ecosystem that require special attention.*

Data gaps specific to the Lynnwood shoreline jurisdiction are the following.

Regarding the stream that flows through the ravine there is no information on the flow, the water quality, sedimentation, aquatic life, land area drained, or riparian assessment of the upper reach. Regarding the beach there is no real knowledge about what impacts the loss of bluff materials has had on the ecosystem, and no knowledge of the changed composition or shape of the beach over time. Regarding the railroad hardening of the shoreline we have no real assessment of impact on

the ecosystem. Regarding the marine environment there is only limited information.

### **3.4 Key Opportunities for Protection, Restoration, Public Access, and Use**

The previous sections on critical physical and biological resources, and land use establish the basis for making observations about key opportunities for protection, restoration, public access, and use. Such opportunities are limited. So, the following sections will be brief.

#### **3.4.1 Key Opportunities for Protection**

The key opportunities for protection of Lynnwood shoreline resources are to adopt appropriately restrictive environment designations, limit the allowable uses within the designations, and adopt policies and regulations that will allow appropriate use but prevent harm to the resources. A specific opportunity for protection is to maintain the current riparian habitat that exists on the site. Lynnwood can continue contributing to the overall health of the ecosystem of Browns Bay by continuing its acquisition of land within the Lund's Creek watershed.

#### **3.4.2 Key Opportunities for Restoration**

Opportunities for restoration are several. Within the marine environment eelgrass could be planted to enhance fish habitat. Enhancement of eelgrass growth would best be done within the entire Brown's Bay area which would require a coordination and cooperation with the City of Edmonds. Within the tidelands and on the beach the old pilings (located on private property) could be removed. And, the stormwater runoff from the impervious surfaces of the wastewater treatment plant site could be subjected to detention and treatment. Within the Lund's Creek watershed, there may be restoration projects on Lund's Creek that Lynnwood may be able to initiate.

#### **3.4.3 Key Opportunities for Public Access**

The opportunities for creating physical public access to the Lynnwood shoreline within Lynnwood's current shoreline jurisdiction are limited. The wastewater treatment plant site is enclosed within security fencing and no public access is allowed into the plant site. Public access is prohibited due to the need to protect the public from contact with hazardous materials and to protect the plant from harm. Hazardous materials are used and stored in the plant. The most likely new public access point would start on property just north of the plant (within the City of Edmonds) and after crossing the railroad tracks would end on Lynnwood jurisdiction beach. Such a crossing would require BNSF permission and is unlikely to be received. A pedestrian bridge over the railroad tracks, or an underpass, could be proposed to alleviate the pedestrian safety issue. Creating pedestrian access at this site and using a pedestrian bridge (or underpass) would be expensive. It would likely serve only the local area residents, as there is no room to provide for public parking.

Visual access (water view) to the waters of Puget Sound in the area of the Lynnwood shoreline has been created by removal of vegetation necessary for construction of the wastewater treatment plant. No future construction of facilities at the site will obstruct existing public visual access. There may be some possibilities for increasing visual public access through selective pruning of trees on the north and south slopes of the ravine within which the treatment plant is located. Such selective pruning would only be allowed if it contributed to, or did not diminish, the health of the trees; and that it did not increase the likelihood of slope failure.

### **3.4.4 Key Opportunities for Use**

No changes in use of the land and water under current Lynnwood shoreline jurisdiction are anticipated. The area is considered to be fully and appropriately utilized.

## **4.0 SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS**

This section presents a summary of the key findings of the Shoreline Inventory, Analysis, and Characterization report, conclusions, and the recommendations for planning decisions and other following actions.

### **4.1 Summary of Key Findings**

- The location of the Burlington Northern Santa Fe (BNSF) railroad along the Lynnwood shoreline has permanently altered the local environment. The alteration has resulted in: removal of a band of native vegetation and wildlife habitat which cannot be replaced, changing the natural stream outlet to the beach possibly causing a restriction of transport of source materials to the beach, and permanently limiting pedestrian access to the beach at this location.
- The location of the Lynnwood wastewater treatment plant within the small coastal ravine has permanently altered the local environment. The alteration has resulted in: probable removal of wetlands associated with that portion of the small stream which is now piped around and under the plant, and removal of native vegetation and wildlife habitat.
- The littoral cell drift in the majority this reach, including the Lynnwood shoreline, is to the north. The status of the Lynnwood beach regarding loss of material is not known. This is a data gap.
- There is evidence of an old dock on the Lynnwood beach. There are about fifty old pilings in place. They are quite worn and protrude only about one foot above the rocky beach. A possible beach restoration action, which could be taken, would be to remove the old pilings. The pilings are located on private property. Further investigation of this action is warranted.
- There are six land parcels in private ownership in the Lynnwood shoreline jurisdiction (excluding the BNSF land). These are in the tideland area. They are in most cases remnant parcels of the upland parent parcels created by truncation when the BNSF right-of-way was acquired. The six private land parcels are tidelands and have limited, or no, potential for developed uses.
- The land uses within the Lynnwood shoreline jurisdiction are well established and stable. There appears to be no opportunity for further development.
- The BNSF railroad is an active mainline transportation corridor that will remain in use for the foreseeable future.

- The Lynnwood wastewater treatment plant has a useful life that extends into the foreseeable future.
- The SMA goal of increasing physical public access would be extremely difficult and expensive to achieve at the Lynnwood site. The Lynnwood wastewater treatment plant occupies the entire width of the ravine in which it is situated. The plant site is fenced and access is restricted for reasons of public safety. It is deemed not to be practical to pursue the goal of increasing public access to the shoreline through city property in the Lynnwood SMP. There are better alternative sites to provide physical access. The Lynnwood beach is still open and available for public use to those who access it by land from the north or south, or by water.
- There may be an opportunity to enhance eelgrass off the Lynnwood shoreline. The *Nearshore Reconnaissance Assessment* indicates that eelgrass in this area is at best patchy. More investigation on this possible opportunity is warranted. This is a data gap.
- A wetlands assessment has not been done for the upper reaches of the stream that runs through the Lynnwood WWTP site. In fact, the critical areas assessment and mapping does not include this area. This is a data gap.
- The *Nearshore Reconnaissance Assessment* and the *Habitat Limiting Factors Report* contain an extensive listing of data gaps, so much so that it is impractical to repeat the material here. The reader is referred to those documents for the information.
- Given that no changes in land or water use are anticipated within the Lynnwood shoreline jurisdiction, there should be no net loss of biological resource value.
- The stormwater runoff from the impervious surfaces of the treatment plant site appears not to have detention and treatment.
- The potential for inclusion of the Meadowdale Park area in the incorporated limits of Lynnwood is not deemed to be likely. The recent actions of the City Council in responding to requests for annexation show that there is little interest in adding more territory to the city unless there is a significant positive revenue advantage to the city. This area offers no such advantage.
- The potential for inclusion of the Martha Lake area in the incorporated limits of Lynnwood is more likely than the Meadowdale Park area because the potential for net revenue enhancement does exist in this area. However, annexation of this area is complicated by the fact that the area is claimed by both Lynnwood and Mill Creek as areas planned for future city annexation. The matter is pending resolution.

## 4.2 Conclusions

The inventory, analysis, and characterization conducted by the City provide a sufficient knowledge base to proceed with the planning and regulatory process and complete the Shoreline Master Program. The subject area of the SMP is geographically small with a limited range of land uses, and with no expectation of land use change throughout the planning time horizon. While data gaps have been identified, and it would be particularly useful to have that additional information in preparation and refinement of a restoration program, lack of that information is not essential to the selection of environment

designations. More information in the future can be used to refine the policies and regulations that result from the current effort to prepare and adopt the best SMP that can be done with the currently available information. The City staff believes it has done all that is necessary under the state law and rules to inventory and analyze available pertinent information.

#### 4.3 Summary of Recommendations

- Utilize two environment designations within the area of current Lynnwood shoreline jurisdiction. The Aquatic designation should be applied to all the tidelands below the Ordinary High Water Mark (OHWM). This includes properties that are in City of Lynnwood ownership and private ownership. The High-Intensity designation should be applied to all the remaining shoreland. This includes the Burlington Northern Santa Fe (BNSF) railroad land and the City of Lynnwood owned property on which the wastewater treatment plant is located.
- If the Meadowdale Park area should ever be annexed into the City of Lynnwood, three environment designations should be applied in that area. All of the tidelands, up to the OHWM, should be given the Aquatic designation. All of the BNSF right-of-way should be given the High Intensity designation. And the remaining parkland, up to 200 feet landward of the OHWM, should be given the Urban Conservancy designation. These are the designations used in the Snohomish County Shoreline Master Program.
- If the Martha Lake area (most likely to be limited to the western shoreline) should ever be annexed into the City of Lynnwood, two environment designations should be applied in that area. The waters and submerged lands within Lynnwood shoreline jurisdiction should be given the Aquatic designation. The lakeshore and landward for 200 feet should be given the Shoreline Residential designation. These are the designations used in the Snohomish County Shoreline Master Program.
- Prepare and adopt use tables for the environment designations that allow for continuation of existing uses with the only other uses being for enhanced enjoyment of the shoreline resources.
- Prepare and adopt shoreline management policies which will protect the shoreline resources.
- Fill in the data gaps as time and resources are available. The data gaps identified in the *Nearshore Reconnaissance Assessment Report* and the *Salmon and Steelhead Habitat Limiting Factors Report* go well beyond the geographic area of Lynnwood's jurisdiction. Filling those data gaps is beyond the capacity of the City of Lynnwood. However, the City can and should participate in some way to assure that the data gaps are filled.
- Take action on the possible restoration projects. Retain the appropriate technical consultation on shoreline and marine resources and assess the benefits and costs of two projects: beach restoration by removal of old pilings, and marine vegetation restoration by planting of eelgrass. If there is a net benefit to each project, prepare and implement a plan for each restoration project.
- Investigate the costs and benefits of providing stormwater detention and treatment at the wastewater treatment plant site.

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## **Appendix D**

### **Cumulative Impacts Analysis**

The preparation of a Shoreline Master Program requires an assessment of cumulative impacts of development. This is to assure that such development results in no net loss of shoreline ecological functions. So, the process of preparing the Master Program must evaluate and consider cumulative impacts of reasonably foreseeable future development on shoreline ecological functions and other shoreline functions fostered by the policy goals of the Shoreline Management Act. To ensure no net loss of ecological functions and protection of other shoreline functions and/or uses, master program shall contain policies, programs, and regulations that address adverse cumulative impacts and fairly allocate the burden of addressing cumulative impacts among development opportunities. Evaluation of such cumulative impacts should consider:

1. Current circumstances affecting the shorelines and relevant natural processes;
2. Reasonably foreseeable future development and use of the shoreline; and
3. Beneficial effects of any established regulatory programs under other local, state, and federal laws.

The regulations state that the methods of determining reasonably foreseeable future development may vary according to local circumstances, including demographic and economic characteristics and the nature and extent of local shorelines.

#### **Current Circumstances**

The land and water uses within the Lynnwood Shoreline jurisdiction are long established and stable. There are a number of factors causing stress to the natural environment within the jurisdiction. A listing of the stressors follows.

Railroad roadbed with shoreline armoring – Construction of the railroad roadbed has removed an area of riparian vegetation and prevents natural beach material nourishment by preventing bluff erosion.

Wastewater treatment plant – Construction of the Lynnwood wastewater treatment plant resulted in the loss of riparian vegetation, the placement of a natural stream channel in a pipe for about the last four hundred feet of downstream length, and paving over of any adjacent wetland area associated with the natural stream in the downstream area. Urban stormwater runoff is combined with the natural stream runoff and is untreated before discharge to the beach.

Wastewater treatment plant outfall – The treated effluent from the wastewater treatment plant is discharged from an outfall pipeline which extends 1,125 feet into Puget Sound (as measured from the west face of the railroad embankment). Effluent discharge takes place at a depth of 85 to 120 feet (through a diffuser which is the last 240 feet of the outfall line. This diffuser helps to mix the

effluent within the receiving water. The treated effluent and its discharge meet all federal and state laws and standards. Although listed here as a stressor, any real impact on the natural environment is likely to be minimal. And, the discharge is a well regulated and permitted use.

Old wooden pilings – There are about a dozen old wooden pilings protruding from the Lynnwood beach. Historical photos give evidence that the pilings are the last remnants of a dock. It is unknown whether the pilings are treated wood or natural wood. It is possible that the pilings are a small and relatively localized stressor in the beach environment. These pilings are located on private property.

Over water structures – There are currently no over water structures in the Lynnwood jurisdiction. The proposed regulations do allow docks, piers, and floating platforms. If constructed, these over water structures could be stressors in the shoreline environment.

Ecological functions – Appendix C, the shoreline characterization of the SMP, provides a more complete description of the current ecological functioning of the Lynnwood shoreline than will be provided in this appendix. The reader is encouraged to read that appendix prior to reading this cumulative impacts analysis. For those who don't wish to take the time to read that appendix, a brief summary of the current ecological functioning is presented in this appendix.

The natural conditions, and ecological functioning of the Lynnwood shoreline has been much altered by human habitation and use. Much of the native riparian vegetation of Lynnwood's shoreline area has been removed. Removal of this riparian vegetation has occurred as a result of the construction of the City's wastewater treatment plant within the narrow bluff ravine leading to the shoreline, and through the construction of a two-track railroad line along the toe of the coastal bluff. The riparian vegetation that remains is located on the steep slopes of the shoreline bluff. The flat upland areas of the shoreline bluff have been developed for single-family residential use. Even this diminished riparian vegetation provides for wildlife habitat. Eagles are regularly observed using tall Firs in this area as perches.

The small stream located in the ravine has been substantially altered in character with the construction of the treatment plant. The lower section of the stream is located in a pipe that runs around and under the treatment plant. The pipe passes under the railroad tracks and the stream water discharges onto the beach. There are no records or observations to indicate that the stream is habitat to salmonid fish, or other species. So, this stream does not appear to be a significant element in the current ecological functioning of the shoreline. Any wetlands associated with this small stream have long since been paved or built over.

The location of the railroad roadbed along the toe of the coastal bluff has virtually stopped the natural erosion of the bluff that would be occurring through tide and

wave action. The stoppage of erosion is starving the beach of natural material which would be being deposited. As a consequence, the nature and composition of the beach has changed from the time pre-dating human habitation and use of the shoreline. The shoreline is now characterized as a sandy-rocky beach. The composition has likely changed plant and animal populations which in turn may have changed other species use of the aquatic environment. These shifts in aquatic plant and animal species over time have not been studied in the Lynnwood shoreline environment.

Sketchy information is available on marine plant life within the Lynnwood shoreline. It is reported that the Eelgrass beds in this area are patchy. Even so, these beds provide aquatic habitat for fish.

In summary, the ecological functioning of the Lynnwood shoreline has been altered but it continues to provide habitat for wildlife and fish. While the ecological system in operation within the Lynnwood shoreline area has been altered through human habitation, the system now in operation does appear to stable in not in process of further decline. This summary and understanding of the current ecological functioning (the baseline) now permits analysis of any impacts that may be likely to occur through future development.

### **Shoreline Use Stability**

The City of Lynnwood's ownership of the wastewater treatment plant site and the Burlington North Santa Fe's ownership of the railroad track right-of-way are very key factors that contribute to Lynnwood's stable use of the shoreline. Each entity will own its respective land for the foreseeable future. So, this stability factor will continue into the foreseeable future.

### **Foreseeable Future Development**

The current circumstances within Lynnwood's shoreline jurisdiction indicate there is little chance for any substantial changes to the established pattern of development and use. The foreseeable future development opportunities are limited both by local circumstances and by deliberate regulation to limit development opportunities. A listing of foreseeable development follows.

Aquaculture – This is an allowed use in the proposed development regulations. It is possible that someone may initiate this use. It is not possible to predict the likelihood of this happening.

Floats and boat moorings – These are permissible uses. Again, it is not possible to predict the likelihood of this happening.

Pedestrian access – There is no good location for allowing pedestrian access to the beach from within City property. Safety considerations prevent public access

within the fenced grounds of the wastewater treatment plant. Gaining legal access across the railroad tracks is also problematic. The “most feasible” location for providing pedestrian access within the immediate vicinity of the Lynnwood shoreline is from within the property adjacent and to the north of the treatment plant. If access were to be provided from within this property, and legal access across the railroad obtained, the outlet to the beach would occur within Lynnwood’s shoreline jurisdiction. Although this is technically feasible it is not thought to be likely in the foreseeable future.

Piers and docks – These are conditionally permitted uses under the proposed regulations. Although conditionally permitted, it is not likely that either of these structures would be constructed, as there is no legal access across the railroad to the upland area.

Railroad expansion or relocation – There is no indication that the railroad intends to either expand the number of tracks or to relocate the existing tracks. Still it is possible that either action could take place within the foreseeable future. Even if such expansion were to take place in the future it is not known whether such impacts would result in a net loss in ecological functioning. The starvation of beach material replenishment would not increase because it is now virtually zero. It is even possible that such expansion could have a net positive impact on ecological functioning by including beach rebuilding along the whole shoreline of Browns Bay.

Wastewater treatment plant expansion or alteration – This use will continue into the foreseeable future. While there is no current plan to expand the plant it is likely that at some point it may become necessary. The most likely area of expansion would be to the east and southeast of the plant, an area well outside the shoreline jurisdiction. There is a current need for a vehicle turnaround at the west end of the plant. The only feasible way of constructing such a turnaround would be to acquire an easement on the property to the north of the plant. There are no current plans to pursue this development action.

### **Beneficial Effects of Regulations**

This section discusses the beneficial effect of current regulations, and the beneficial effects of the new shoreline regulations.

Current regulations – The shoreline area is currently regulated by the Lynnwood Comprehensive Plan and Zoning Ordinance. The Comprehensive Plan land use map designation for the Lynnwood shoreline area is Public Facilities. The Plan states that the purpose of the Public Facilities land use designation is to provide land area for public and semi-public uses and facilities. All current uses within the shoreline area are consistent with the Comprehensive Plan. This regulatory document has a beneficial effect.

The Official Zoning Map of Lynnwood designates the shoreline area as the P-1, Public zone. This zone allows a number of uses that are in the realm of public or semi-public uses. Some of these uses would not be appropriate for the Lynnwood shoreline area. City ownership and use of a significant part of the shoreline area nullifies any possible negative impact that could occur due to inclusion of these uses inappropriate to the shoreline area in the permitted uses of the P-1 zone. As the new shoreline use regulations will overlay and take precedence over the underlying zoning regulations, any possible negative impacts will be eliminated. Future amendments to the zoning code relating to the public zone will also address this issue. This regulatory document has a beneficial effect.

The Lynnwood wastewater treatment plant operates under federal and state regulations (US Army Corps of Engineers, Section 404 permit; Washington Departments of Ecology, Section 401 permit and Fish and Wildlife, HPA permit). Compliance with these regulations assures safe operation of the plant, and it assures that air and water discharges from the plant meet all applicable federal and state standards. This is a current regulatory program having a beneficial effect on the shoreline environment.

New regulations - All foreseeable future development is to be regulated by either a Substantial Development Permit or Conditional Use Permit, or both. For such uses to be approved they will have to be judged to not cause a net ecological function loss. In summary, this is the beneficial effect of the new regulations. A discussion of how the new regulations will address the cumulative impacts of the foreseeable future developments described before follows.

Aquaculture – Section 5, Specific Shoreline Uses, lists aquaculture as a permitted use in the Aquatic Environment designation. The use is not further regulated by the SMP. The likelihood of any future use of the Lynnwood shoreline is unknown. Commercial aquaculture use would be regulated by the appropriate state agency.

Floats and boat moorings – Section 5, Specific Shoreline Uses, lists recreational floats and boat mooring buoys as permitted uses in the Aquatic Environment designation. These uses are regulated by policies and regulations contained in part C of Section 5 (see pages 28-31 of the SMP). The beneficial effect of these policies and regulations is to assure that there is no net loss of ecological functioning. The regulations address near shore marine aquatic habitat ecological functions including potential eelgrass habitat.

Pedestrian access – The section on Foreseeable Future Development discusses the real and on-going difficulties of providing pedestrian access to the beach through Lynnwood jurisdiction. As the conclusion is that this will not be a future development in the foreseeable future, there is no need to list the use as a regulated use or to provide regulations for the use.

Piers and docks – Section 5, Specific Shoreline Uses, lists piers and docks as uses in both the High-Intensity Environment Designation and Aquatic Environment Designation. Each use requires a Substantial Development Permit and a Conditional Use Permit within each of the environment designations. These uses are regulated by policies and regulations contained in part C of Section 5 (see pages 28-31 of the SMP). The beneficial effect of these policies and regulations is to assure that there is no net loss of ecological functioning. Regulations focus on limiting over water structures and impacts to shorelines immediately upland from the ordinary high water mark. Ecological functions that are benefited include near shore riparian habitat and near shore marine aquatic habitat.

Railroad expansion or relocation – Section 5, Specific Shoreline Uses, lists railroad as a use in the High-Intensity Environment Designation. The use requires a Special Development Permit and Conditional Use Permit. Any expansion or relocation of the railroad would be regulated under the policies and regulations set forth in Section 4, General Policies and Regulations; and in Section 6, Policies and Regulations for Shoreline Modification Activities. As the railroad use is not a list use in the Aquatic Environment Designation, it would require an amendment of the SMP to allow this use in Aquatic. The beneficial effect of these policies and regulations is to assure that there is no net loss of ecological functioning. Section 4 and Section 6 policies and regulations would benefit and protect remaining shoreline riparian habitat.

Wastewater treatment plant expansion or alteration – Section 5, Specific Shoreline Uses, lists sewage treatment facilities as a use in the High-Intensity Environment Designation. The use requires issuance of a Special Development Permit and a Conditional Use Permit. A sewage treatment facility is not permitted in the Aquatic Environment Designation, but the effluent discharge line as allowed in this environment as a part of the approval of the SDP/CUP for the treatment plant. Any expansion or alteration of the treatment plant would be regulated under part D of Section 5 (see page 31), and under policies and regulations set forth in Section 4, General Policies and Regulations; and in Section 6, Policies and Regulations for Shoreline Modification Activities. The beneficial effect of these policies and regulations is to assure that there is no net loss of ecological functioning. Referenced regulations would benefit water quality functions and remaining shoreline riparian habitat.

### **Cumulative Impacts Conclusion**

All foreseeable future uses within the Lynnwood shoreline area are covered by policies and regulations contained within the Shoreline Master Program, or are otherwise regulated by local, state, and federal regulations. Assessment of the specific impact

permitted uses will have on ecological functions will be a part of the review and regulation process. Assessment of specific negative impacts will require mitigation, and may also take into account what other restoration efforts are making on the localized ecological system. It is the conclusion of this cumulative impacts analysis that there will be adequate policies and regulations in place, with the adoption of the Lynnwood Shoreline Master Program, to assure that the cumulative impacts of foreseeable future development will not cause a net loss in ecological function within Lynnwood shoreline jurisdiction.



## **Appendix E Restoration Plan**

Shoreline master programs are required to include goals, policies, and actions for restoration of impaired ecological functions. These master program provisions should be designed to achieve overall improvements in shoreline ecological functions over time, when compared to the status upon adoption of the master program. The approach to restoration planning may vary significantly among local jurisdictions, depending on:

- The size of the jurisdiction;
- The extent and condition of shorelines in the jurisdiction;
- The availability of grants, volunteer programs or other tools for restoration; and,
- The nature of the ecological functions to be addressed by restoration planning.

Master program restoration plans shall consider and address the following subjects:

- (i) Identify degraded areas, impaired ecological functions, and sites with potential for ecological restoration;
- (ii) Establish overall goals and priorities for restoration of degraded areas and impaired ecological functions;
- (iii) Identify existing and ongoing projects and program that are currently being implemented, or are reasonably assured of being implemented (based on an evaluation of funding likely in the foreseeable future), which are designed to contribute to local restoration goals;
- (iv) Identify additional projects and programs needed to achieve local restoration goals, and implementation strategies including identifying prospective funding sources for those projects and programs;
- (v) Identify timelines and benchmarks for implementing restoration projects and program and achieving local restoration goals; and,
- (vi) Provide for mechanisms or strategies to ensure that restoration projects and programs will be implemented according to plans and to appropriately review the effectiveness of the projects and program in meeting the overall restoration goals.

The above regulations are clear that the approach to restoration planning can be tailored to be appropriate to local circumstances, but that such plans must still address the foregoing subjects. Given Lynnwood's circumstances (only 700 lineal feet of Puget Sound shoreline, an established and static development and use pattern, no wetlands, and no Salmonid bearing streams) some of the subjects may be covered at a cursory level.

### **Degraded areas, impaired functions, and potential for restoration**

The dictionary definition of degraded is: "Having been reduced in quality or value." This definition well applies to much of the Lynnwood shoreline environment. The location of the Burlington Northern Santa Fe railroad along the shoreline at the toe of

the bluff, and the construction of the Lynnwood wastewater treatment plant within the ravine containing a Puget Sound tributary stream are the two major human activities that have significantly degraded the natural environment and impaired ecological functions. Each activity has without question removed riparian habitat. It is possible too that one or both activities destroyed wetlands associated with the tributary stream. The railroad roadbed serves as a barrier to further erosion of the bluffs and thus prevents continuing nourishment of the beach with new material. This interruption of the natural cycle of erosion and deposition has most likely resulted in changes to the ecological functions at this site. However, any such changes have not been studied and documented in this specific area.

There is no evidence to indicate that the unnamed tributary stream was ever a Salmonid bearing stream. We do know that it is not now a Salmonid bearing stream. The downstream segment of the stream, approximately 450 feet in length, is contained within a pipeline. A portion of the pipeline crosses under the wastewater treatment plant. It would be impractical to restore the stream to a natural state in this area.

### **Goals and priorities for restoration**

The goals for restoration of impaired ecological function as stated in Section 2 of the Shoreline Master Program are as follows.

1. It is the goal of the city to assure no net loss of shoreline ecological functions.
2. It is the goal of the city to restore impaired ecological functions within reasonable limits of both biological science and cost effectiveness.
3. It is the goal of the city to prepare, adopt, and implement a restoration plan which prioritizes and targets functions most in need of restoration.

The priorities for restoration are as follows.

1. Improve freshwater stream habitat conditions and functions.
2. Improve beach and aquatic habitat condition and functions.
3. Improve stormwater quality discharged to the beach.

### **Existing projects contributing to restoration**

The only current City of Lynnwood project contributing to restoration of ecological function of the Lynnwood shoreline is City land acquisition in the Lund's Creek watershed (For location, see Map A3 in Appendix B. Lund's Creek is the first stream north of the Lynnwood shoreline area). Acquisition of land within the watershed assures that the land will not be developed and that ecological functions within the

watershed will be preserved. While the watershed is not within the Lynnwood shoreline jurisdiction there is an ecological connection between the two areas.

The watershed is the largest remaining natural area in the Lynnwood/Edmonds area that includes a salmonid stream, steep slopes, and important wildlife habitats. The regional park, Meadowdale Beach Park, is located in the watershed. In recent years, the watershed has suffered from unchecked erosion and stormwater runoff impacting steep slopes, stream water quality, and fish and wildlife habitat. To protect the watershed from the impacts of development, the City of Lynnwood began acquiring Lund's Creek watershed property in 1996. The City now owns 98 acres within the watershed, and intends to continue property acquisition.

The property acquisition, and future restoration projects, will protect and preserve Lund's Creek (a Class 1 salmonid stream), associated steep slopes, second growth forest, and wildlife habitat. Public access to the Puget Sound will also be enhanced because the City owned land can provide for additional trail connections.

#### **Additional restoration projects needed**

These are the additional projects needed.

- Study the costs and benefits of removing old wooden pilings (For location, see photo D-1 in Appendix B). If there is a net ecological benefit to removal, then pursue the removal by working with the property owner to achieve removal, possibly with City financial assistance. This project will address the improvement of beach and aquatic habitat conditions and functions.
- Study the costs and benefits of stormwater detention and treatment at the wastewater treatment plant (For location, see photo H-10 in Appendix B). If there is a net ecological benefit to detention and treatment, then proceed with design, funding, and construction of the facilities. This project will address improvement of stormwater quality discharge to the beach.
- Continue land acquisition in the Lund's Creek watershed and initiate stream restoration and enhancement projects (For location, see Map A3 in Appendix B. Lund's Creek is the first stream north of the Lynnwood shoreline area). This project will address improvement of the freshwater stream habitat conditions and functions.
- Study, in association with the City of Edmonds, the costs and benefits of marine vegetation enhancement in Browns Bay (For location, see Map A3 in Appendix B). If there is a net ecological benefit to such enhancement, then participate with the City of Edmonds in the vegetation enhancement project. This project will address improvement of the aquatic habitat conditions and functions.

- Utilize any available technical resources and volunteer programs that may be able to assist in carrying out priority projects. As necessary, develop the necessary voluntary resources on a local basis.

### **Timelines for restoration projects**

- Wood pilings study – The study to determine the benefits and costs of removal of the wood pilings will be requested for the FY 2009-2010 City budget. If there is a positive outcome in terms of benefits exceeding cost, the money for piling removal will be requested for the FY 2011-2012 City Budget.
- Stormwater detention and treatment – Money will be requested for the study and design of the stormwater separation, detention, and treatment in the FY 2013-2014 City budget. If the design proves to be cost effective, construction money will be requested in the FY 2015-2016 City Budget.
- Lund’s Creek watershed land acquisition – This project is on-going and is dependent upon federal and state funding. Given that it is not possible for the City to predict when such grant funding may be available this project cannot be scheduled with a timeline. The land acquisition program is opportunistic in nature. Stream restoration and enhancement is primarily through volunteer efforts. Any grant funding received for land acquisition will be budgeted to the appropriate City budget fiscal year.
- Marine vegetation enhancement – This project will depend largely on whether the City of Edmonds includes the project in the city’s Shoreline Master Program restoration plan. Any funding required on the part of the City of Lynnwood will be requested in the appropriate City budget year.

### **Additional Project Funding Sources**

The City will actively investigate and pursue grant funding from state, federal, private, and foundation sources in carrying out the priority projects set out in this Restoration Plan. Centennial Clean water grant funds from Ecology or salmon recovery funds may be appropriate funding sources for some of the priority projects. Potential funding sources are listed in Table 1 at the end of this Plan.

### **Strategy to assure restoration implementation**

The strategy to assure implementation of the Restoration Plan is to adopt the Plan as part of the Shoreline Master Program, and to periodically review the progress being made in implementation of the Restoration Plan as required by Section 7, part L of the SMP. The strategy also includes continuing communication, coordination, and collaboration with the City of Edmonds on Browns Bay restoration, and making the

necessary budget requests and grant funding applications to carry out the priority projects.

**Table 1 - Potential Funding Groups for Shoreline Restoration**

| Funding Group  | Funding Category   | Eligibility                                      | Deadline       | Contact   | Restoration Goal  | Opportunity Type    |
|--|--|--|----------------|---|---|---------------------|
| National Fish and Wildlife Foundation  | Conserve fish, wildlife, plant habitats  | Local governments, WA State                      | June 1/Oct 15  | Suzanne Piluso<br>503-417-8700<br><a href="mailto:Suzanne.piluso@nfwf.org">Suzanne.piluso@nfwf.org</a>  | Preserve and Restore Habitat Functions                                  | Habitat             |
| Water Quality – DOE  | Water quality, wastewater treatment source, wetland habitat preservation funding, public education | Local governments, recognized tribes             | Feb 3          | Jeff Nejedly<br>360-407-6566  | Protect and Improve Water Quality                                       | Wetlands            |
| Flood Control – DOE  | Fish habitat protection, enhancement   | Cities   | Feb 1          | Bev Huether<br><a href="mailto:bhue461@ecy.wa.gov">bhue461@ecy.wa.gov</a>   | Reduce Impacts of Flooding Events                                       | Flooding Habitat    |
| Community Salmon Fund – King County NFWF   | Fund habitation protection and restoration to benefit watershed health                             | Local governments, WA State, South Snohomish Co. | Aug 15/Sept 15 | Nick Pearson<br>206-691-0700<br><a href="mailto:npearson@evergreenfc.com">npearson@evergreenfc.com</a>  | Preserve and Restore Habitat Functions                                  | Habitat             |
| National Fire Plan   | Reduce fuels on lands at risk  | Cities   | Feb 11         | Lauren Maloney 503 -808-6587<br><a href="mailto:lauren_maloney@or.blm.gov">lauren_maloney@or.blm.gov</a>  | Preserve Natural areas and Vegetation                                   | Vegetation          |
| F&W Species of Concern   | Land acquisition, habitat conservation, to conserve threatened and endangered species              |  | Dec 17         | Joanne Stellini<br><a href="mailto:Joanne_stellini@fws.gov">Joanne_stellini@fws.gov</a>   | Preserve and Restore Habitat Functions                                  | Habitat             |
| Cooperative Endangered Species Fund  | Conserve threatened or endangered species, protect lands for habitat conservation                  | Not for habitat restoration or enhancement       | March 31       | Elizabeth Rodrick<br>360-902-2696<br>Brad Pruitt<br>360-902-1102  | Preserve Natural Areas and Vegetation                                   | Vegetation          |
| National Resource Conservation Service   | Wetlands easements and restoration   | Landowners, tribes                               | No date listed | Leslie Deavers, USDA<br>202-720-1067  | Protect and Improve Water Quality                                       | Wetlands            |
| Assessment and Watershed Protection Grants - EPA   | Erosion and sediment control management  | Local governments, WA State                      | June 21        | Katie Flahive<br>202-566-1206<br><a href="mailto:flahive.katie@epa.gov">flahive.katie@epa.gov</a>   | Protect and Improve Water quality                                       | Floodplain Flooding |
| Aquatic Lands Enhancement Account - DNR  |  |  |                | Leslie Ryan<br>Phone: (360) 902-1064<br>Email:<br><a href="mailto:leslie.ryan@wadnr.gov">leslie.ryan@wadnr.gov</a>                                  | Reduce Impacts of Flooding Events                                       | Flooding            |
| Bring Back the Natives – National Fish and Wildlife Foundation                                 |  |  |                | Pam McClelland<br>Phone: (202) 857-0166<br>Email:<br><a href="mailto:mcclelland@nfwf.org">mcclelland@nfwf.org</a>                                   | Preserve Natural Areas and Vegetation                                   | Habitat Vegetation  |
| Landowner incentive program - Washington State Department of Fish and Wildlife, Lands Division |  |  |                | Ginna Correa or Jeff Skriletz<br>Phone: (360) 902-2478 or (360) 902-8313<br><a href="http://wdfw.wa.gov/lands/lip">http://wdfw.wa.gov/lands/lip</a> | Preserve and Improve Physical and Visual Public Access to the Shoreline | Habitat Vegetation  |
| Regional Fisheries Enhancement Groups - Washington State Department of Fish and Wildlife       |  |  |                | Kristi Lynett<br>Phone: (360) 902-2237<br>Email:<br><a href="mailto:lynetksl@dfw.wa.gov">lynetksl@dfw.wa.gov</a>                                    | Preserve and Restore Habitat Functions                                  | Habitat             |

|  |   |  |  |   |  |                     |
|--|---|--|--|---|--|---------------------|
| Salmon Recovery Funding Board - Interagency Committee for Outdoor Recreation                             |   |  |  | Rollie Geppert<br>Phone: (360) 902-2636<br>Email:<br><a href="mailto:Salmon@iac.wa.gov">Salmon@iac.wa.gov</a>                 | Preserve and Restore Habitat Functions | Habitat             |
| Conservation Futures Fund  |   |  |  | Snohomish County Parks and Recreation<br>425-388-6600   |  | Vegetation Habitats |
| Snohomish Conservation District  | Conservation Reserve Enhancement Program (CREP) |  |  | Jamie Bails<br>Phone: 425-335-5634 ext. 106<br>Email:<br><a href="mailto:jaimeb@snohomishcd.org">jaimeb@snohomishcd.org</a>   | Conservation Easements                 | Vegetation Habitat  |
| Wetland Protection, Restoration, and Stewardship Discretionary Funding - Environmental Protection Agency |   |  |  | Christina Miller<br>Phone: (206) 553-6512<br>Email:<br><a href="mailto:miller.christina@epa.gov">miller.christina@epa.gov</a> | Protect and Improve Water Quality      | Vegetation Habitat  |