CITY OF DES MOINES
SHORELINE MASTER PROGRAM

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Department of Ecology approval effective ~~November 1, 2010~~

Adopted ~~January 27, 2011~~ by City of Des Moines Ordinance No. ~~1502~~

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CITY OF DES MOINES
SHORELINE MASTER PROGRAM

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PREFACE

The Shoreline Management Act (SMA) was adopted by Washington State in 1971. The SMA is intended to "prevent the inherent harm in uncoordinated and piecemeal development of the state's shorelines." It establishes statewide policy to provide for management of the shorelines by planning for and fostering all reasonable and appropriate uses in an environmentally responsible manner.

The SMA is administered through a cooperative program between local governments and the Department of Ecology (Ecology), whereby local communities prepare a Shoreline Master Program (SMP) that is adopted under guidelines established by Ecology. The SMP serves to regulate development along shorelines of the state and establish a comprehensive vision of how the shoreline area will be used and developed over time. This Program refers to the City's Comprehensive Plan, Zoning Code and other development plans and ordinances for which this SMP has relevance.

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THIS SECTION UPDATED TO INCLUDE NEW SMP BACKGROUND INFO

The City's SMP was originally adopted in 1972. The SMP was updated and adopted in 1988 and then~~.~~ ~~Under new shoreline master program guidelines adopted by Ecology in 2004, cities within King County are required to update their local shoreline master programs. The current draft SMP was developed~~ comprehensively updated ~~in 2004-2005~~and adopted in 2011. ~~as an update of the existing SMP. It incorporates shorelines annexed by the City since 1988 and reflects recent changes in State requirements and community preference.~~ As of 2018 the Shoreline Management Act requires each city and county to review and, if necessary, revise their SMP at least once every eight years consistent with the requirements of RCW 90.58.080 and WAC 173-26-090. This review and revision process is referred to as periodic review. The City of Des Moines was required to conduct a periodic review by June 30, 2019. This newly adopted SMP is a product of that periodic review. ~~The program refers to the City's Comprehensive Plan, Zoning Code and other development plans and ordinances for which this SMP has relevance.~~

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CHAPTER 1 – INTRODUCTION

1.1 Purpose and Responsibility

Washington's Shoreline Management Act (SMA) (Chapter 90.58 RCW, the Shoreline Management Act of 1971) was passed by the State Legislature in 1971 and adopted by the public in a referendum. The Act was created in response to a growing concern among residents of the state that serious and permanent damage was being done to shorelines by unplanned and uncoordinated development. The goal of the Act was "to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines." While protecting shoreline resources by regulating development, the Act is also intended to provide for appropriate shoreline growth by encouraging land uses that enhance and conserve shorelines functions and values.

The SMA established a cooperative program of shoreline management between local government and the state. Local governments have the primary responsibility for initiating the planning and administration of the local Shoreline Master Program (SMP). The Department of Ecology is responsible for supporting and assisting local governments and insuring compliance with the SMA and its provisions, primarily WAC Sections 173-26 – *State Master Program Approval/Amendment Procedures and Master Program Guidelines* and 173-27- *Shoreline Management Permit and Enforcement Procedures.*

The SMP is a comprehensive use plan for local shoreline areas that includes desired goals and policies consistent with SMA policy (RCW 90.58.020); maps, diagrams and charts or other descriptive material and text; use and development regulations; and administrative procedures for the shoreline permitting process. The Ecology SMP guidelines (WAC 173-26) establish general goals and policies, and standards and criteria for regulations. The SMP is based on State guidelines, but tailored to the specific conditions and needs of individual communities. The SMP is also meant to be a comprehensive vision of how the shoreline area will be used and developed over time.

The City of Des Moines ("City") first adopted an SMP in 1972 and updated it in 1987 (adopted under Ordinance No. 715). Ecology adopted the new SMP on March 1, 1988. In 1996 the City of Des Moines (Ordinance No. 1176) amended the City's Comprehensive Plan to include the Woodmont/Redondo annexation area (i.e., from Saltwater State Park south to the current city boundary adjacent to the City of Federal Way). On January 17, 2004, Ecology adopted new SMP guidelines (WAC 173-26), which required revision of several provisions contained in the 1988 City of Des Moines SMP.

According to Substitute Senate Bill (SSB) 6012, passed by the 2003 Washington State Legislature, cities within King County were required to amend their local SMPs consistent with Ecology's revised guidelines. The required update process also provided the City with an opportunity to incorporate the changes in the City's physical shoreline conditions (including annexations) and integrate current technical and scientific information into the SMP.

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UPDATED BACKGROUND INFORMATION

~~The current SMP was adopted locally on October 15, 1987 by Ordinance No. 715 and adopted by Ecology on March 1, 1988.~~ A complete comprehensive update of the SMP per the 2003 bill was adopted locally on January 27, 2011, by Ordinance No. 1502. ~~The goals and policies contained therein were incorporated into the Greater Des Moines Comprehensive Plan by reference. Development regulations contained in the SMP have been adopted by reference as part of the Des Moines Zoning Code (18.90 DMMC).~~

As of 2018 the Shoreline Management Act requires each city and county to review and, if necessary, revise their SMP at least once every eight years consistent with the requirements of RCW 90.58.080 and WAC 173-26-090. This review and revision process is referred to as periodic review. The City of Des Moines was required to conduct a periodic review of its SMP by June 30, 2019. This ~~newly adopted~~amended SMP is a product of that periodic review. Development regulations contained in the SMP are adopted by reference as part of chapter 16.20 of the Des Moines Municipal Code (DMMC). The SMP is also referenced by Des Moines' Comprehensive Plan, *Des Moines 2035: Charting Our Course for a Sustainable Future.*

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1.2 Key Shoreline Concepts and Terms

The Washington Shoreline Management Act (SMA) has three broad, overarching policies:

- **Preferred shoreline uses**: "uses shall be preferred which are consistent with control of pollution and prevention of damage to the natural environment, or are unique to or dependent upon use of the states' shorelines...."
- **Promote public access**: "the public's opportunity to enjoy the physical and aesthetic qualities of natural shorelines of the state shall be preserved to the greatest extent feasible consistent with the overall best interest of the state and the people generally."
- **Protect shoreline natural resources**, including "...the land and its vegetation and wildlife, and the water of the state and their aquatic life...."

1.2.1 Preferred Uses

In establishing preferred uses of the state's shorelines, the SMA defines "water-dependent," "water-related," and "water-enjoyment" uses. These terms are officially defined in Chapter 8 of the SMP. General descriptions and examples are included here.

- "**Water-dependent use**" means a use that requires direct access to the water to accomplish its primary function. In other words, a use or portion of a use, which cannot exist in a location that is not adjacent to the water and which is dependent on the water by reason of the intrinsic nature of its operations. Examples include commercial fishing, marinas, aquaculture, shipbuilding, and ferry terminals.
- "**Water-related use**" means a use that does not require direct access to the water, but provides goods or services associated with water dependent uses. In other words, a use or portion of a use which is not intrinsically dependent on a waterfront location but whose

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economic viability is dependent upon a waterfront location. Examples include boat supply and repair services, and kayak rentals.

- "**Water-enjoyment use**" means a use that does not require access to the water, but is enhanced by a waterfront location. This includes uses that facilitate public access to the shoreline as a primary characteristic of the use; or uses that provide for recreational use or aesthetic enjoyment of the shoreline for a substantial number of people. The use must be open to the general public and the shoreline-oriented space within the project must be devoted to the specific aspects of the use that fosters shoreline enjoyment. Examples include restaurants and aquariums.

- "**Water-oriented use**" means a use that is water-dependent, water-related, or water-enjoyment, or a combination of such uses.

1.2.2 Public Access

In preserving and promoting public access, the SMA and state shoreline guidelines (WAC 173-26) recognize that shorelines of the state are a resource to be used and enjoyed by all citizens of Washington State. While balancing the rights of privacy and private property, the SMA promotes public access as a "preferred use" in terms of water-oriented recreation, and requires public access amenities to be incorporated into certain waterfront development. In this context, public access can mean many things, including physical access to the water and beach, public access to piers and docks, or development of overlooks providing visual access to the shoreline.

1.2.3 No Net Loss of Ecological Functions

The state shoreline guidelines (WAC 173-26), updated and adopted in 2003, emphasize the protection and restoration of shoreline natural resources. The guidelines refer to the protection of shoreline ecological processes (such as hydrology and sediment transport) and shoreline ecological functions (provided by water quality, vegetation, and habitat). A major concept in the protection of ecological functions is termed "no net loss."

- **"No Net Loss"** – means the maintenance of the aggregate total of the City's shoreline ecological functions. The no net loss standard requires that the impacts of each shoreline development and/or use, whether permitted or exempt, be identified and mitigated such that there are no resulting adverse impacts on ecological functions or processes. The concept of "net" as used herein, recognizes that any development has potential or actual, short-term or long-term impacts and that by applying appropriate development standards and mitigation measures (including avoiding impacts), implementing the SMP will not diminish the shoreline resources and values as they currently exist.

1.3 Shoreline Jurisdiction

Concepts and terms related to the City's shoreline jurisdiction are specific to those described in RCW 90.58.030, WAC 173-26-020, WAC 173-27-030, and WAC 173-22-030. Definitions and significant terms related to the Shoreline Management Act and the City's SMP are included within Chapter 8 of this document.

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Under the SMA, the shoreline jurisdiction includes all water areas of the state, the lands underlying them, and areas that are 200 feet landward of the ordinary high water mark **(**OHWM**)** of waters that have been designated as "shorelines of statewide significance" or "shorelines of the state." These designations were established in 1971, and are described in RCW 90.58.030. Generally, "shorelines of statewide significance" include portions of Puget Sound and other marine waterbodies, rivers west of the Cascade Range that have a mean annual flow of 1,000 cubic feet per second (cfs) or greater, rivers east of the Cascade Range that have a mean annual flow of 200 cfs or greater, and freshwater lakes with a surface area of 1,000 acres or more. "Shorelines of the state" are generally described as all marine shorelines and shorelines of all other streams or rivers having a mean annual flow of 20 cfs or greater and lakes with a surface area greater than 20 acres.

Shorelines within Des Moines include those portions of Puget Sound lying within the city limits and all lands extending landward 200 feet in all directions as measured on a horizontal plane from the ordinary high water mark together with any associated wetlands, river deltas, and floodways associated with tidal waters that are subject to the provisions of this chapter and whose locations have been designated by the Department of Ecology. There is hereby made a part of this Master Program a map, Figure 1-1, illustrating the shoreline designations and the *approximate* location of the upland extent of the shoreline jurisdiction in Des Moines.

The Des Moines shoreline jurisdiction also applies to the area waterward of the OHWM to the middle of Puget Sound, an offshore boundary shared with King County, as RCW 35.21.160 extends jurisdiction to the middle of water bodies, such as bays, sounds, lakes and rivers. The actual seaward and landward extent of shoreline jurisdiction will be determined on a case-by-case basis. Given that the Shoreline Designation Map is an integral part of this Master Program, no part of the map may be altered or revised unless a Master Program amendment has been approved by the City Council and the Washington State Department of Ecology (RCW 90.58.090).

Associated wetlands, deltas and floodways that are included in the shoreline jurisdiction are those that influence or are influenced by the regulated waters of Puget Sound. In general, a wetland is "associated" if all or a portion of the wetland falls within that area that is 200 feet from the ordinary high water mark. A wetland outside of this area may also be associated if it is in proximity to the shoreline and there is a demonstrated influence between the wetland and the shoreline. Such influence can include hydraulic continuity, such as a surface or groundwater connection. The deltas or subestuaries occurring in the City's shoreline jurisdiction include Des Moines Creek, Massey Creek, McSorley Creek, Woodmont Creek, Redondo Creek and Cold Creek.

Areas and uses in those areas that are under exclusive federal jurisdiction as established through federal or state statutes are not subject to the jurisdiction of chapter 90.58 RCW.

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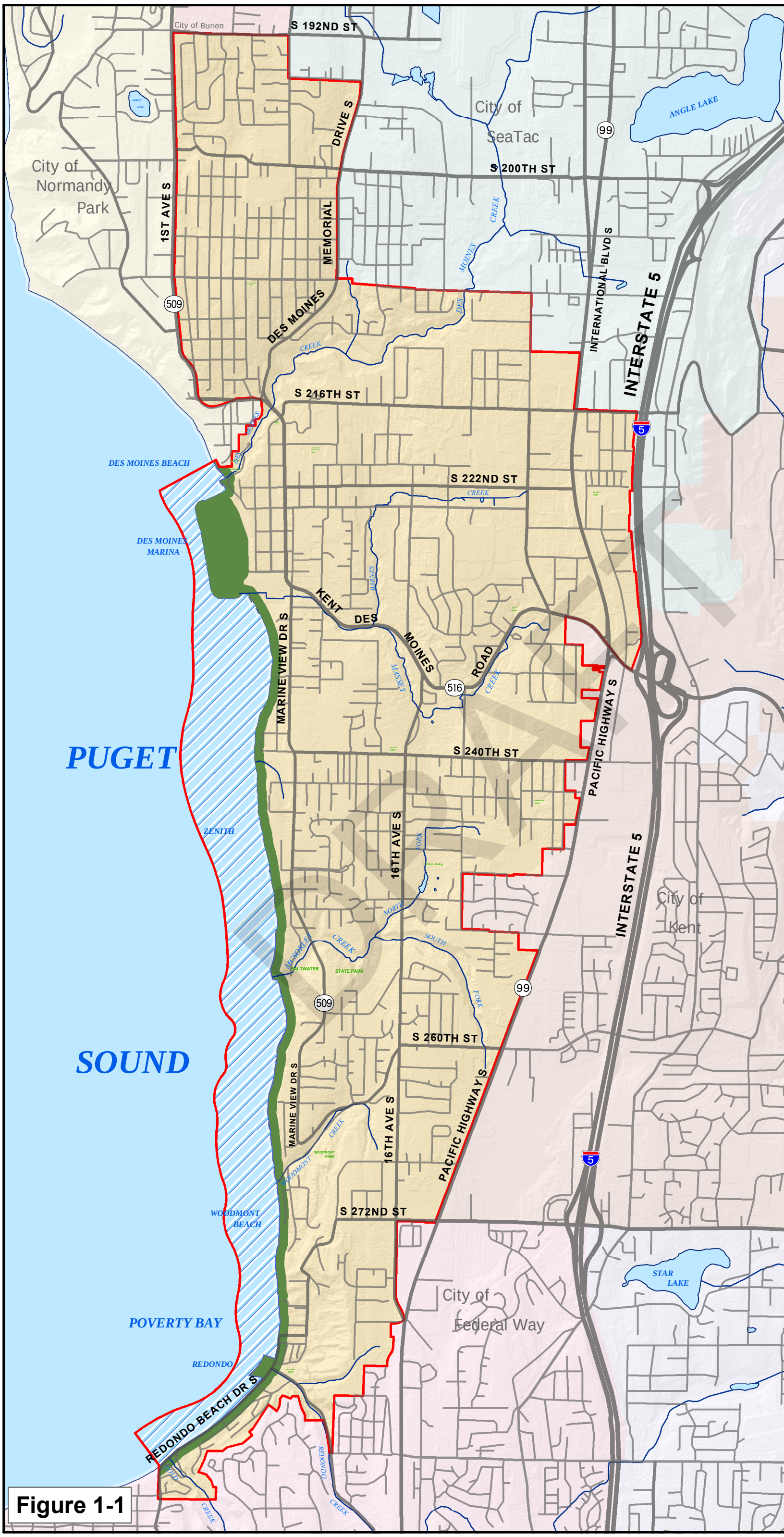


Figure 1-1

City of Des Moines

Shoreline Master Plan

Shoreline Jurisdiction

SMP Jurisdiction

- SMP Tideland Jurisdiction
- SMP Upland Jurisdiction

Des Moines City Limits

Streams

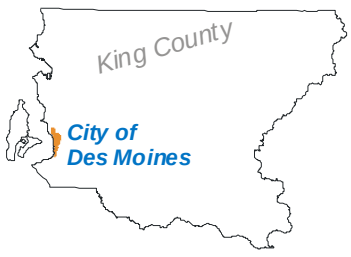
Jurisdictions

- Normandy Park
- Burien
- SeaTac
- Kent
- Federal Way
- Unincorporated King County

CITY OF DES MOINES SHORELINE MASTER PLAN MAP SERIES

This map series is intended for general planning purposes related to the City of Des Moines Shoreline Master Plan.

These maps include the best available science to locate, illustrate and categorize shoreline areas. However, due to scale, the maps are not precise delineations of every area and are not a substitute for site-specific analysis. These maps are a composition of various sources of information in both paper and electronic format. They were created from available public records and existing map sources. Where available, scientific delineations and field surveys were digitized at the original scale and merged into the GIS database.



500 250 0 500 1,000 1,500 2,000 2,500

Scale In Feet

N W E S

Community Development
21630 11th Ave S, Suite D
Des Moines, WA 98198-6398
PHONE: (206) 870-7576 * FAX: (206) 870-6544
WEB: http://www.desmoineswa.gov

File: 1-1.SMP_Jurisdiction.mxd - Mar. 2006
Product of City of Des Moines GIS

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1.4 Critical Areas in Shorelines

The term "critical areas" refers to those areas designated as "environmentally critical areas" ~~by Chapter 18.86 of the Des Moines Municipal Code (DMMC)~~ under the authority of ~~the~~ Washington State's GMA, or Growth Management Act ~~(GMA)~~ (RCW 36.70A).~~-~~ Designated environmentally critical areas in Des Moines include wetlands; streams; geologically hazardous areas; ravine sidewalls and bluffs; hillsides of 15 percent slope or greater; critical aquifer recharge areas; fish and wildlife habitat conservation areas; and areas of special flood hazard.

Commented [JW6]: Less reference to the DMMC will reduce confusion

In 2003 the state legislature passed ESSB 1933, which amended both the SMA and GMA to integrate provisions for critical areas management into local shoreline master programs.~~-~~ For those critical areas physically located in shoreline jurisdiction, local governments were required to "provide a level of protection of critical areas at least equal to that provided by the local government's critical areas ordinances" in their updated SMPs.

~~Since 2003, there has been significant confusion about critical areas and shorelines due to ambiguous language in ESHB 1933.~~ The 2003 law included a clear intent for critical areas in shoreline jurisdiction to be protected solely by Shoreline Master Programs (SMPs) adopted under the state Shoreline Management Act (SMA), rather than by critical areas ordinances (CAOs) adopted under the Growth Management Act (GMA). However, the 2003 law was not abundantly clear on when a local SMP would take over from the CAO. That ambiguity unfortunately led to differing, and sometimes contrary, legal interpretations.

On March 18, 2010, Governor Chris Gregoire signed Substitute House Bill 1653. The bill clarifies that, with certain exceptions, critical area regulations adopted under the ~~Growth Management Act~~GMA apply within cities' s~~S~~horeline areas~~. These regulations apply until~~ unless Ecology approves either a comprehensive new SMP that meets Ecology's guidelines, or a SMP amendment specifically related to critical areas.

Therefore, ~~once adopted,~~ critical areas within Des Moines' shoreline areas are regulated by this Shoreline Master ~~p~~Program. This P~~p~~rogram incorporates many of the substantive requirements ~~in~~ of ~~DMMC~~ the critical area regulations of chapter ~~18.86~~16.10 DMMC that were last amended by ordinance No. 1649 and adopted on May 12, 2016.~~directly.~~ However, it is important to note that there ~~remain~~ are procedural differences between ~~DMMC~~ chapter ~~18.86~~16.10 DMMC and the SMP. ~~Please r~~Refer to Chapter 3 for SMP policies related to critical areas; Chapter 6 for regulations related to critical areas; and Chapter 7 for administrative procedures related to critical areas.

1.5 Compliance in Des Moines and Relationship with Other Plans

The SMA set forth in some detail three tasks to be fulfilled by local governments:

1. Administration of a shoreline permit system for proposed substantial development on shorelands of designated water bodies;
2. Compilation of a comprehensive inventory that includes a survey of natural characteristics, present land uses, and patterns of property ownership; and
3. Development of a master program to provide an objective guide for regulating the use of shorelines.

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Uses and developments regulated by this Program may also be subject to other provisions of the DMMC, the City of Des Moines Comprehensive Plan, the Washington State Environmental Policy Act (RCW 43.21C and WAC 197-11), and other local, state and federal laws. Project proponents are responsible for complying with all applicable laws prior to commencing any use, development or activity. Where this Program makes reference to any RCW, WAC, or other state or federal law or regulation the most recent amendment or current edition shall apply. In the event this Program conflicts with other applicable County policies or regulations, all regulations shall apply and unless otherwise stated, the more restrictive provisions shall prevail. As described in Section 1.4 above, critical areas within the City's shoreline areas are regulated by this Program and the regulations adopted under the GMA (chapter 16.10 DMMC) do not apply.

Commented [JW7]: Moved from the last paragraph of section 1.4. Provides clarity on the applicability of the DMMC and state laws.

The Des Moines SMP refers to the City's Comprehensive Plan, Zoning Code and other development plans and ordinances for which this SMP has relevance. -Des Moines' SMP is to be considered an overlay of the Zoning Code, Title 18~~, Des Moines Municipal Code~~ DMMC. Overlay zones are a set of zoning requirements that are described in the Zoning Code, are mapped and subsequently imposed in addition to those regulations of the underlying zoning classification. Development within the overlay zone ~~must~~ shall conform to the requirements of both zones.- In case of conflict, the stricter requirement applies.

In October of 1972, the City established a permit system in compliance with the first requirement of the SMA. -Under this system, a permit ~~must~~ shall be obtained from the City for any proposed substantial development within the Des Moines shoreline jurisdiction.- "Development" is defined in Chapter 8, consistent with RCW 90.58.030(3)(~~d~~a).- "Substantial development" is defined in Chapter 8, consistent with RCW 90.58.030(3)(e).- Substantial development means any development of which the fair market value exceeds ~~five thousand seven hundred eighteen~~seven thousand and forty seven dollars ($7,047~~$5,718~~), or any development that would interfere with the normal public use of the water or shorelines.- The definition of substantial development addresses how increases to the $7,047~~$5,718~~ threshold will be determined by changes in the consumer price index.

In compliance with the second requirement of the ~~Act~~SMA, the City completed in March 2005 a comprehensive inventory of natural characteristics, functions and values of resources, existing land use, and ownership patterns along the City's shorelines (Appendix A).

~~Therefore, once this Shoreline Master Program is adopted, the City's critical area regulations will not apply to property located within the jurisdiction governed by this program. This program directly incorporates many of the substantive requirements for critical areas found in DMMC 18.86. However, it is important to note that there remain procedural differences between DMMC 18.86 and the SMP. Please refer to Chapter 3 for SMP policies related to critical areas; Chapter 6 for regulations related to critical areas; and Chapter 7 for administrative procedures related to critical areas.~~

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1.6 Public Outreach

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UPDATED BACKGROUND INFORMATION

The 2018-19 SMP periodic review and amendment utilized a variety of public outreach activities to disseminate information and solicit public input. Two public open houses were held at the City of Des Moines Activity Center, one on August 14 and another on November 13, 2018. The City ~~opened~~ hosted a booth at the August 25, 2018, Waterfront Farmer's Market ~~to disseminate information and solicit public input~~. A webpage (http://www.desmoineswa.gov/smp) was created to provide background information, updates on the periodic review, and a means to comment on the process. Local news media was informed of public events and social media updates were posted. A City Council public hearing was held prior to final adoption of the amended SMP.

The 2010 SMP update also utilized a variety of public outreach activities.~~-~~ A public open house was held in November 2004 to review preliminary findings from the shoreline inventory and characterization work and solicit input and feedback from the public. ~~-~~A second open house was held in April 2005 to review and solicit input on updated general goals and policies and proposed shoreline environment designations. ~~-~~During the fall of 2005, the City completed additional outreach activities. ~~included articles in the City newsletter and the *Des Moines News*. A presentation on the SMP update project was given at a Saturday workshop hosted by the Highline Community College Marine Science and Technology Center in Redondo.~~ From November 2004 through November 2005, five public meetings were held with the Des Moines Planning Agency to work through updated elements of the SMP. ~~The Agency reviewed and discussed recommended changes for each element (e.g., general goals and policies, shoreline environment designations, development standards and regulations, etc.) and provided policy direction to staff.~~ On November 21, 2005, the Planning Agency held a public hearing on the updated draft SMP and voted to forward this version to the City Council. The Des Moines City Council conducted a segmented public hearing to review the Planning Agency Recommended Draft of the SMP. On February 23, the City Council closed the public hearing and voted to forward the draft SMP to the Department of Ecology after incorporating specific modifications. ~~At four different meetings in January and February 2006, the Des Moines City Council conducted a segmented public hearing to review the Planning Agency Recommended Draft of the SMP. On February 23, the City Council closed the public hearing and voted to forward the draft SMP to the Department of Ecology after incorporating specific modifications. .~~

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1.7 Document Organization

The SMP establishes long-term planning goals and policies, specific development standards and use regulations, and permitting and administrative procedures. As such, the SMP is a stand-alone document that is linked to other city planning documents and to the Des Moines Municipal Code. Figure 1-2 graphically illustrates these links. The organization of the SMP and the purpose for each chapter is explained below.

- Chapter 1. Introduction: provides background and overview.
- Chapter 2. Shoreline Inventory and Characterization Summary: provides a summary of key findings from the inventory and characterization report, which is included in its entirety as Appendix A of the SMP.

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- Chapter 3. Master Program Goals and Policies: provides general and specific SMP goals and policies for shoreline use elements. ~~This chapter will be replicated as Chapter 14 of the Des Moines Comprehensive Plan.~~
- Chapter 4. Restoration Planning: establishes long-term restoration goals, provides an overview of regional Puget Sound restoration plans and programs, and discusses specific restoration opportunities in Des Moines.
- Chapter 5. Shoreline Environment Designations: establishes management policies for specific areas within the shoreline jurisdiction. ~~The management policies will be replicated in Chapter 14 of the Des Moines Comprehensive Plan.~~ Specific development standards and use regulations for each shoreline environment are included in Chapter 6 of the SMP and are linked to the City's ~~Zoning~~ Municipal Code ~~(DMMC Title 18)~~.
- Chapter 6. Development Standards and Use Regulations: establishes specific standards (e.g., setbacks, height limits, etc.) and use regulations (e.g., allowance of piers and docks, marinas, recreational development, etc.) for each shoreline environment. The standards and use regulations are linked to the City's ~~Zoning~~ Municipal Code ~~(DMMC Title 18)~~.
- Chapter 7. Administrative Procedures: provides procedures and process for permit applications associated with shoreline development. As land use review procedures, this chapter is linked to the City's Zoning Code (~~DMMC~~ Title 18 DMMC).
- Chapter 8. Definitions: provides definitions for terms used throughout the SMP. Terms in bold typeface indicate that a definition is included in Chapter 8.

Commented [JW11]: This chapter is not replicated in the comprehensive plan.

Commented [JW12]: This chapter is not replicated in the comprehensive plan.

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FIGURE 1-2 UPDATED TO REPLACE PRIOR SMP INFORMATION WITH CURRENT INFORMATION.

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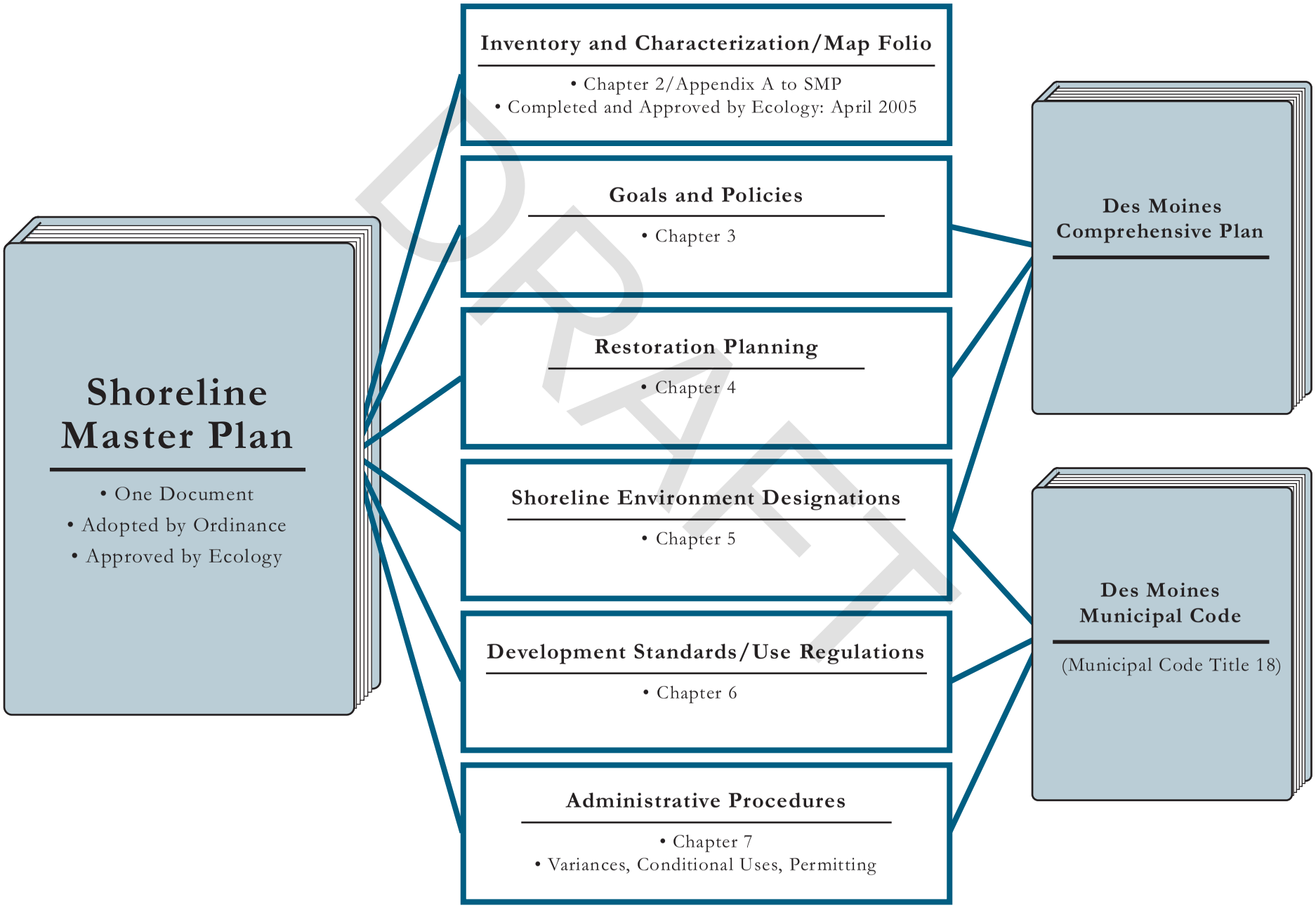
FIGURE 1-2



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CHAPTER 2 – SHORELINE INVENTORY AND CHARACTERIZATION – SUMMARY OF FINDINGS

2.1 Background and Purpose

Cities and counties updating their SMP are required to prepare an inventory and characterization of the shoreline resources in their jurisdiction. As part of the City's 2010 SMP update, an inventory and characterization report and map folio was prepared in the fall of 2004 and finalized in the spring of 2005, following Des Moines Planning Agency and Ecology review. The complete report is incorporated as Appendix A of this SMP.

The purpose of the study was to conduct a baseline inventory of conditions in the shoreline jurisdiction of the City of Des Moines. The inventory and characterization provides a basis for updating the City's SMP to comply with the SMA, Revised Code of Washington (RCW) 90.58 and its implementing guidelines, Washington Administrative Code (WAC) 173-26.

The characterization identifies existing conditions, evaluates functions and values of resources in the shoreline jurisdiction, and explores opportunities for conservation and restoration of ecological functions. The findings are intended to provide a framework for updates to the City's shoreline environment designations, and shoreline management goals, policies, and development regulations. Key findings of the inventory and characterization are summarized below.

2.2 Physical & Biological

The City of Des Moines is located in the central portion of Puget Sound in the Puget Lowland ecoregion. The Des Moines area watershed includes Des Moines Creek, Massey Creek, McSorley Creek, Woodmont Creek, Redondo Creek, and Cold Creek drainage basins. This watershed is controlled by a maritime climate, lakes and local closed depressions occupied by wetlands and bogs with short streams flowing directly to Puget Sound. Land use in the watershed includes medium to high density residential and commercial development. Large areas of native vegetation are found within steep sloped ravines along streams. Surface and groundwater movement are controlled by wetlands and considerable impervious surface. This impervious surface increases peak stormwater flow. Steep receding bluffs are located along much of the Des Moines shoreline, with sediments accumulating at the base of the bluffs protecting the bluffs from further erosion and reducing bluff recession. As these sediments enter the intertidal zone, they are subject ~~ot~~ to transport by waves and water currents to downdrift beaches. Net-shore drift north of Woodmont is northerly and south of Woodmont is southwesterly and a transition zone occurs near Saltwater State Park. Just north of the Des Moines marina, there is also a short shoreline section with net-shore drift to the south.

Bluffs, beaches, and the mouths of several freshwater streams characterize the City's shoreline. Approximately 75 percent of the City's shoreline has been modified with riprap, concrete or wooden bulkheads, including the marina. These structures ultimately limit the amount of sediment transported from upland areas to the beach, and are known to cause erosion and loss of some habitats such as sand and fine gravel beaches. Currents naturally move sediments across the beach and alongshore in continual cycles, but these structures cut off the natural supply and distribution of sediments, causing a change in sediment composition within the nearshore area,

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and overall loss in upper beach area. Fish and wildlife that utilize the shoreline depend on these nearshore processes to maintain their habitats and ultimately their populations.

2.3 Habitat and Species

City shorelines provide important nearshore habitats, such as eelgrass meadows and kelp forests, that support a variety of ~~-~~marine fish~~es~~, birds, and invertebrates.~~.~~ Of special interest are areas that provide habitat for species listed under the Federal Endangered Species Act, "priority" species and habitats listed by Washington State Department of Fish and Wildlife, and species of local importance, including bull trout (threatened), Chinook salmon (threatened), coho salmon, as well as pigeon guillemot, mergansers, ~~coromants~~cormorants, grebes, belted kingfishers, bald eagles, and great blue heron nest sites. Forage fish, such as surf smelt and sand lance (prey for salmonids), also spawn on local beaches.

2.4 Land Use and Public Access

The major land uses along the Des Moines shoreline are single-family homes, parks, and public marina/waterfront facilities. The City's most common shoreline use is single-family residential, which occupies 57 percent of the shoreline (approximately 2.7 miles total). Parks and public, water-oriented facilities occupy 25 percent of the shoreline (approximately 1.2 miles total). These uses include the Des Moines Beach Park, the Des Moines Marina and fishing pier, the S. 239th Street Access, Salt Water State Park, and Redondo Beach Park and commercial area. These areas provide opportunities for boating, fishing, and beach recreation.

2.5 Conclusions

The Puget Sound shoreline in the City of Des Moines is characteristic of urbanized waterfront development elsewhere in the region. Public access to the shoreline, recreational opportunities, and water-oriented uses such as boating and fishing abound in Des Moines. In this regard, goals of the SMA related to public use and enjoyment of the State's shorelines have been met well in the City. However, the natural structure and functions occurring at the shoreline have been significantly altered through structural development of bulkheads and riprap revetments along much of the city's shoreline.

These changes have altered the natural net-shore drift direction and the availability and local distribution of beach sediment. Additionally, development on a watershed scale has affected the shoreline by increasing impervious area in uplands, resulting in increased peak flow velocities and volumes, impaired water quality, and erosion in streams that discharge to Puget Sound. Detailed discussion of altered or degraded shoreline ecological functions in Des Moines is contained in Appendix A, Shoreline Inventory and Characterization.

2.6 Opportunities

Opportunities for site-specific habitat enhancement or restoration of shoreline ecological functions are focused on stream mouths in public parks. Several stream mouths have been piped in culverts or extensively modified by fill and riprap. Replacing riprap with soft-shore, or "bio-engineered" alternatives for bank stabilization (and removing fill in places), along with use of native marine riparian plantings, would promote restoration of subestuaries and benefit fish and

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wildlife. These site-specific projects would likely have a marginal effect on restoring ecosystem wide processes, particularly nearshore coastal processes, since so much of the city's shoreline is structurally modified, but would still be important and valuable efforts toward habitat enhancement and restoration of impaired ecological functions. Detailed discussion of site-specific habitat enhancement and restoration opportunities are in Chapter 4 – Restoration Planning. The description of each opportunity includes discussion of how degraded shoreline ecological functions would be improved.

Programmatic opportunities include coordination with the City's surface water management program, public education and outreach to provide technical guidance for shoreline homeowners, and the possibility for community-based restoration on private property. Opportunities for enhancing public awareness and education could include installation of informational kiosks at public parks and waterfront use areas such as the marina and the Redondo boat launch. The City could also coordinate with King County, the Water Resource Inventory Area (WRIA) 9 forum, and other regional or Puget Sound-wide planning efforts to implement nearshore restoration policies and actions.

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CHAPTER 3 – MASTER PROGRAM GOALS AND POLICIES

3.1 Master Program Goals

The City of Des Moines, by establishing the SMP, intends to control and regulate future development as it affects the shoreline area. The private sector's right to develop ~~must~~ shall not infringe upon the public's right to enjoy and utilize the shorelines of Puget Sound without trespassing on private uplands or tidelands. Development and redevelopment in the shoreline area should occur in a manner that maintains a balance between competing uses, does not impair shoreline ecological processes and functions, and results in the overall improvement of natural resources in the shoreline. An over-arching goal of the master program is to ensure that future use and development of the City's shoreline results in no net loss of shoreline ecological functions.

Recognizing that all of the City's shorelines waterward of the line of extreme low tide are designated as shorelines of statewide significance (RCW 90.58.030(2)(f))~~(e)(iii)~~, these shorelines are of value to the entire state and should be protected and managed according to the following priorities established by the SMA (RCW 90.58.020):

1. Recognize and protect the statewide interest over local interest;
2. Preserve and enhance the natural character of the shoreline;
3. Result in long-term over short-term benefit;
4. Protect the resources and ecology of Puget Sound shorelines;
5. Increase public access to publicly owned areas of the shorelines; and
6. Increase recreational opportunities for the public in the shoreline.

3.2 General Goals and Policies for Master Program Elements

The SMA of 1971 (RCW 90.58) and implementing guidelines (WAC 173-26, as amended) identify several land and water use elements to be addressed in the development of area-wide shoreline goals and policies. They include: Shoreline Use; Public access; Recreation; Circulation; Economic Development; Archaeological and Historic Resources; Critical Areas; Conservation and Restoration. Master programs are also encouraged to include any other elements that, because of present uses or future needs, are deemed appropriate to effectuate the policy of the Act. Therefore, because of the predominantly residential nature of Des Moines, a Residential Element has been incorporated.

The SMA also provides that the City should ensure that policies, regulations, plans and ordinances developed and administered on lands adjacent to the shoreline be implemented in a manner consistent with the goals, policies and regulations of the master program (RCW 90.58.340). The following comprehensive set of shoreline goals and policies provide the foundation and framework on which the balance of the SMP has been developed, commensurate with the intent and objectives of the SMA.

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3.2.1 Shoreline Use Element

Purpose and Intent: This element deals with the distribution, location and extent of: (1) the use of shorelines and adjacent areas for housing, commerce, transportation, public buildings, utilities, education and natural resources; (2) the use of the water for recreation and transportation; and (3) the use of the water, shoreline and uplands for other categories of land and water uses and activities not specified in this SMP.

GOAL

A. Preserve or develop shorelines in a manner that assures a balance of shoreline uses with minimal adverse effect on the quality of life, water and the environment. Recognize that land use and water management activities on adjacent uplands affect the quality of the City's shorelines.

POLICIES

1. Encourage intensive uses that are unique to or dependent upon a shoreline location to locate in developments in or adjacent to the Marina.
2. Protect the natural topography of undeveloped portions of the shoreline to prevent damage to the natural environment and public health.
3. Encourage nonresidential uses or activities that are not water-oriented uses to locate or relocate away from the shoreline.
4. Minimize sprawl and inefficient use of shoreline areas by locating new commercial development where other commercial development already exists, limiting non-water-oriented uses to locations away from the shoreline.
5. Design shoreline structures to be visually compatible with the shoreline character.
6. Locate shoreline structures to minimize view obstruction.
7. Consider the goals, objectives and policies in this SMP in land use and water management actions on adjacent uplands and associated wetlands or streams where such use or development may have an adverse effect on designated shorelines.

GOAL

B. Ensure that land uses within the shoreline will be compatible with adjacent land use and protect existing shoreline habitats and ecological systems.

POLICIES

1. Protect unique and fragile areas of the shoreline from upland or adjacent uses or activities that may have an adverse effect on the shoreline environment.
2. Prohibit any proposed shoreline or adjacent land use development that would have a significant adverse impact on the water quality of Des Moines, Massey, McSorley, Woodmont, Redondo, or Cold Creeks.
3. Formal plats and short subdivisions located in or adjacent to the shoreline shall comply with

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SMP goals and policies.

4. No new construction that significantly reduces the flood storage capacity of the streambed or increases flood hazards to upstream properties or otherwise endangers public safety should be allowed within the limits of the one hundred-year (100-year) flood plain unless reasonable flood and ecological protection is provided

GOAL

C. Preserve the character of existing single-family residential areas.

POLICIES

1. Single-family residential areas should be protected from encroachment by commercial or multifamily residential uses.
2. Residential densities should not exceed the carrying capacity of Des Moines shorelines.
3. Multifamily residential developments should be designed to adequately buffer single-family areas.
4. Residential construction should not adversely impact shoreline features or shoreline ecological functions.
5. All residential use and development should be properly managed to avoid impacts to ecological functions and prevent cumulative impacts associated with shoreline armoring, over-water structures, storm water runoff, introduction of pollutants, and vegetation clearing.
6. Creation of new residential lots through land division should be designed, configured and developed to ensure that no net loss of ecological functions and processes occurs from the plat or subdivision, even when all lots are fully built-out.
7. Whenever possible, non-regulatory methods to protect, enhance, and restore shoreline ecological functions should be encouraged for residential development.
8. Permit applications for single-family residences and accessory structures in the shoreline jurisdiction should be reviewed for compliance with the SMP, although a Substantial Development Permit may not be required.

3.2.2 Public Access Element

Purpose and Intent: This is an element making provisions for public access to shorelines of the state, while protecting private property rights and public safety, and identifying the need and opportunities for providing public access to shorelines of the state.

GOAL

A. Increase public access to shoreline areas. Public access includes the ability of the general public to reach, touch, and enjoy the water's edge. It also includes the ability to travel on the waters of the state and view the water and shoreline from adjacent locations.

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POLICIES

1. Public access to the City's shoreline should be addressed in the City's Comprehensive Parks and Recreation Plan.
2. Public access improvements should not result in a net loss of shoreline ecological functions.
3. Priority for access acquisition should consider resource desirability, availability and proximity of population.
4. Shoreline development by public entities, including local governments, state agencies, and public utility districts should include improvements or amenities to enhance or provide public access as part of each development project.
5. Where appropriate, utility and transportation rights of-way on the shoreline should be made available for public access and use.
6. Publicly owned street ends that abut the shoreline should be retained.
7. The Marina should be examined for its potential to provide additional public access improvements to the Des Moines shoreline.
8. Where appropriate, shoreline recreational facilities and other public access points should be connected by trails, bicycle pathways and other access links.
9. Public pedestrian easements and access points should be of a nature and scale that will be compatible with the abutting and adjacent land use as well as natural features, including aquatic life.
10. Appropriate signs should be used to designate developed, publicly owned shorelines.
11. Within the shoreline environment, pedestrian and non-motorized access should be encouraged.
12. Access development should respect and protect ecological and aesthetic values in the shorelines of the state.
13. Major public access improvements should be designed to meet Americans with Disabilities Act (ADA) standards, while maintaining existing shoreline habitats and ecological systems.
14. Public access to and along the water's edge should be available within publicly owned shorelines that are tolerant of human activity where municipal liability is an acceptable risk. None of the above policies should be construed to take precedence over the City's obligation to provide for the public safety, to maintain publicly owned properties or to protect the assets of the City from unacceptable municipal liability.

GOAL

B. Public access development should respect rights of shoreline property owners.

POLICIES

1. Shoreline access and ancillary facilities should be designed and developed in consideration of adjacent private properties.

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GOAL

C. Public access should be maintained and operated to provide for the public health, safety, enjoyment of the users and minimize liability risks to the City.

POLICIES

1. Shoreline access areas should be planned to include ancillary facilities such as parking and sanitation, when appropriate.
2. Public access should be policed and improved consistent with intensity of use.
3. The provision to restrict access as to nature, time, number of people and area may be appropriate for public pedestrian easements and other public access areas where there are spawning grounds, fragile aquatic life habitats or potential hazard for pedestrian safety.
4. Facilities above and below-water in public shoreline access areas should be properly maintained and operated.

GOAL

D. Protect the public's opportunity to enjoy the physical and aesthetic qualities of shorelines of the state, including views of the water.

POLICIES

1. Viewpoints, lookouts and vistas of shorelines and wetlands should be publicly accessible, where possible, and when private properties are adequately protected.
2. New developments should minimize visual and physical obstruction of the water from shoreline roads and upland owners.
3. Provisions such as maximum height limits, setbacks, and maintenance of view corridors should be adopted to minimize the impacts to existing views from public property or substantial numbers of residences.

3.2.3 Recreation Element

Purpose and Intent: This is an element for the preservation and expansion of water-oriented recreational opportunities through programs of acquisition/developments, and various means of less-than-fee acquisition. Water-oriented recreational uses are permitted in the shoreline area when consistent with the goals, policies and regulations of this SMP.

GOAL

A. Provide water dependent and shoreline-oriented recreation opportunities for City residents and maximize public recreational opportunities of the shoreline area.

POLICIES

1. Provide recreational opportunities on the publicly owned shoreline that attract people of all ages, health, family status and financial ability.

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2. Encourage the cooperation of all appropriate levels of government in the planning, designing and financing of future recreational facilities.
3. Examine potential additional recreational, historical and educational opportunities afforded by the Marina and identified in the shoreline inventory and characterization.
4. Effective interpretation should be provided at public recreation facilities to raise the quality of visitor experiences and to provide an understanding of the resource.
5. Shoreline recreational use and development should enhance environmental qualities with minimal adverse effect on the natural resources.
6. Shoreline recreational areas should be sited and designed to facilitate adequate monitoring of activity and maintenance.
7. Bicycle path planning should be taken into consideration as opportunities for shoreline views.
8. The recreation corridor along the shoreline, including the Marina, the Yacht Club, Des Moines Beach Park, Saltwater State Park, the Redondo area and sea wall and other public recreation properties as may be added in the future, should be maintained in as-good-as-new condition.
9. Whenever possible, natural materials should be used in developing shoreline recreational areas.
10. The development of recreational acquisition plans should give emphasis to the acquisition of prime recreation lands prior to their being preempted for other uses.
11. The siting of all recreational developments shall enhance the area concerned and protect neighboring uses.
12. The design of recreational facilities should emphasize structural forms that harmonize with the topography, reinforce use areas, and minimize damage to natural resources and shoreline ecological functions.

3.2.4 Circulation Element

Purpose and Intent: This is an element for assessing the location and extent of existing and proposed major thoroughfares, transportation routes, terminals and other public facilities, and correlating those facilities with the shoreline use elements.

GOAL

A. Limit circulation systems in shoreline areas to those which are water- oriented.

POLICIES

1. Motor vehicle traffic in the shoreline area should be confined to existing two-lane roadways.
2. Motorized vehicles should be prohibited on all beaches of the shoreline, except for residential service access allowed by existing easement.
3. Non-water related parking facilities should be prohibited from locating in the shoreline area.

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4. Encourage development of trails and other forms of non-motorized access to the shoreline.

3.2.5 Economic Development Element

Purpose and Intent: This is an element for the location and design of water-oriented commercial and industrial facilities, such as transportation, port, tourist and other developments dependent upon shoreline locations.

GOAL

A. Provide long-range benefit to human economic pursuits while assuring compatibility with the environmental and physical conditions of the designated shoreline.

POLICIES

1. Priority should be given to water-oriented developments.
2. Priority shall be given to those water-oriented commercial developments that would provide an opportunity for substantial numbers of people to enjoy the shorelines.
3. Over-the-water, non-water dependent structures on the shorelines should be prohibited.
4. Shoreline developments should be designed to accommodate or enhance scenic views and amenities of the Des Moines waterfront.
5. Economic developments within the shoreline should be compatible with the Des Moines Revitalization and Economic Development Plan.

3.2.6 Archeological and Historic Resources Element

Purpose and Intent: This is an element for the protection and restoration of buildings, sites, and areas having historic, cultural, educational or scientific values, including unknown archaeological resources that may be located in the shoreline area.

GOAL

A. Preserve, protect, and restore buildings, sites, and areas of the shoreline that have historical, archeological, or cultural value.

POLICIES

1. Within the shoreline jurisdiction all buildings and shoreline sites having archeological, historic, or cultural significance, as determined by the City, the State Department of Archeology and Historic Preservation, and any affected Indian Tribe, should be preserved.
2. Work on development and construction projects that encounter new and significant archaeological, historical, scientific, or cultural discoveries should be suspended until such discoveries can be fully evaluated.
3. Shoreline use regulations should encourage the restoration, development and interpretation of historical, cultural and educational building or shoreline areas.
4. Encourage the preservation of historic buildings within its shoreline jurisdiction.

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3.2.7 Critical Areas Element

Purpose and Intent: This is an element which provides for protection of areas designated by the City as environmentally critical areas that are physically located in the shoreline jurisdiction. Critical areas are those lands especially vulnerable to development because of fragile biophysical characteristics and/or important resource values. Critical areas within shoreline jurisdiction are governed by the Shoreline Management Act (RCW 90.58) through this Program.

GOAL

A. Manage designated critical areas (i.e., wetlands, bluffs and geologic hazard areas, fish and wildlife conservation areas, flood hazard areas, aquifer recharge areas, and streams) that are located within the City's shoreline jurisdiction to protect existing ecological functions and ecosystem-wide processes and, where possible, restore degraded ecological functions and ecosystem-wide processes to ensure no net loss of ecological functions.

POLICIES

1. Provide a level of protection to critical areas within the shoreline area that is at least equal to that which is provided by the City's critical areas regulations.
2. Regulate development in a way that protects the public from damages due to flooding, landslides, subsidence, and erosion and prevents adverse impacts to ground and surface water quality, wetlands, tidelands, streams, stream corridors, and fish and wildlife habitat.
3. Integrate the full spectrum of planning and regulatory measures, including the comprehensive plan, inter-local watershed plans, and City of Des Moines critical area regulations to protect and restore critical areas within shoreline jurisdiction.
4. Pursue activities in critical areas that restore degraded ecological functions and ecosystem-wide processes

3.2.7.1 Wetlands

Purpose and Intent: This is a sub-element to recognize the important functions wetlands provide in the nearshore ecosystem, particularly when associated with subestuaries of streams entering Puget Sound.

GOAL

A. Preserve, protect and/or restore wetlands within and associated with the City's shorelines to achieve no net loss of wetland area and wetland ecological functions.

POLICIES

1. Wherever possible, the City should restore wetland functions on publicly owned lands by limiting development and removing streamside riprap that prevents maintenance of estuarine wetlands and connections with interior riparian wetlands.
2. Regulate wetlands associated with shorelines of the state in a manner that is at least as protective as those in the City's critical areas regulations to ensure no net loss of wetland area

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and functions. Regulate development of private upland property to maintain sufficient volumes of surface and subsurface drainage into wetland areas associated with the shoreline, to sustain existing vegetation and wildlife habitat and ecological functions consistent with the King County, Washington "Surface Water Design Manual," and RCW 90.58.

3.2.7.2 Bluffs and Geologically Hazardous Areas

Purpose and Intent: This is a sub-element to recognize the important ecological functions that marine bluffs provide on Puget Sound shorelines. This sub-element also addresses the need to protect human life and property from incompatible development in or near geologically hazardous areas such as bluffs, erosion and landslide hazard areas.

GOAL

A. Avoid foreseeable risk from geological hazards to people and improvements, recognizing that erosion of marine bluffs is a natural dynamic of shoreline ecological processes.

POLICIES

1. Apply regulations to geologically hazardous areas within the shoreline that are at least as protective as those in the City's critical areas regulations to protect against increased threat of geological hazard to adjacent properties and adverse impacts to other critical areas.
2. New development or the creation of new lots that would cause foreseeable risk from geological conditions during the life of the development should not be allowed.
3. New development that would require structural shoreline stabilization over the life of the development should not be allowed. Exceptions may be made for the limited instances where stabilization is necessary to protect allowed uses where no alternative locations or designs are available and no net loss of ecological functions will result.

3.2.7.3 Nearshore Habitats (Fish and Wildlife Habitat Conservation Areas)

Purpose and Intent: This is a sub-element to recognize that the shoreline and nearshore environment provide important habitat functions. Eelgrass and kelp beds and forage fish spawning areas are of particular importance in maintaining habitat functions and are considered "critical saltwater habitats." These areas and others are designated by Des Moines as fish and wildlife habitat conservation areas.

GOAL

A. Protect existing nearshore habitats and restore degraded nearshore habitats. These nearshore habitats require a higher level of protection due to the important ecological functions they provide. As ecological functions of marine shorelands can affect the viability of critical saltwater habitats, effective protection and restoration of critical habitats should integrate management of shorelands and submerged areas.

POLICIES

1. The City, in conjunction with state resource agencies, affected Indian tribes, should identify and classify saltwater habitats, seasonal ranges, and habitat elements with which federal-

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listed and state-listed endangered, threatened, and priority species have a primary association and which, if altered, may reduce the likelihood that a species will maintain its population and reproduce over the long term.

2. Avoid or discourage the placement of docks, bulkheads, bridges, fill, floats, jetties, utility crossings, and other human-made structures that intrude into or over identified nearshore habitat having a primary association with federal-listed and state-listed endangered, threatened, and priority species. Construction of improvements which provide improved public access and use in areas where the natural shoreline has been altered and ecological functions degraded shall be considered on a case by case basis.
3. Limit development and shoreline modifications that would result in interference with the process of natural erosion of feeder bluffs.

GOAL

B. Integrate management of shorelands as well as submerged areas with other programs and regulations to achieve effective protection and restoration of nearshore habitats.

POLICIES

1. The City should guide its open space planning efforts toward establishing a system of fish and wildlife habitats with connections between larger habitat blocks and open spaces. These should include where possible riparian and estuarine ecosystems, especially salt marsh habitats and upland ecological functions important to critical saltwater habitats.
2. Adequate buffer zones should be established to separate incompatible uses from critical saltwater habitat areas.
3. Protect existing and restore degraded near-shore habitat, lost salmonid habitat, sediment inflow and transport regimens.
4. Correct activities that cause excessive sediment input from mass wasting.

3.2.7.4 Flood Hazard Reduction

Purpose and Intent: This is a sub-element to recognize the need to avoid creating flood hazard for life and property and to preserve ecological functions provided by frequently flooded areas.

GOAL

A. Protect the City from losses and damage created by flooding; while maintaining water quality, fish and wildlife habitat, recreation, and other beneficial uses and ecological functions.

POLICIES

1. The City should manage flood protection through the City's Stormwater Management Plan, Comprehensive Plan, and frequently flooded areas regulations to avoid development that creates flood risks and to maintain ecological functions such as flood storage.

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2. Work with other cities, King County, and state and federal agencies, to seek regional solutions to flooding problems.
3. Control stormwater runoff in a manner, which utilizes natural detention, retention, and recharge techniques to the maximum extent possible.
4. Discourage development in the floodplain of any stream that would individually or cumulatively result in an increase to risk of flood damage.
5. Structural flood hazard reduction measures should be avoided whenever possible. When necessary, they should be accomplished in a manner that improves shoreline ecological functions, or at a minimum assures no net loss of ecological functions and ecosystem-wide processes.
6. Limit development and shoreline modifications along streams that would result in interference with the process of channel migration, provided that such migration would not cause significant adverse impacts to existing developments or public improvements.
7. Plan for and facilitate returning stream corridors to more natural hydrologic conditions.
8. When evaluating alternate flood control measures, consider the removal or relocation of structures in flood-prone areas.

3.2.7.5 Critical Aquifer Recharge Areas

Purpose and Intent: This is a sub-element to protect water quality for drinking water supplies in areas susceptible to groundwater contamination and therefore designated by Des Moines as critical aquifer recharge areas.

GOAL

A. Protect Critical Aquifer Recharge Areas from contamination or adverse effects to the recharging of the aquifer.

POLICIES

1. Manage critical aquifer recharge areas in the shoreline with development standards that limit the type of use and activities where infiltration of runoff may affect groundwater recharge or contaminate aquifers.
2. Water reuse projects for reclaimed water ~~must~~ shall be in accordance with the adopted water or sewer comprehensive plans that have been approved by the state Departments of Ecology and Health.
3. Location and construction specifications of storage tanks proposed for critical aquifer recharge areas ~~must~~ shall be constructed to prevent releases of hazardous substances or wastes to ground, ground waters, or surface waters.

3.2.7.6 Subestuaries

Purpose and Intent: This is a sub-element to recognize the important ecological functions provided by subestuaries in the greater nearshore environment. While freshwater streams that

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enter Puget Sound in Des Moines are not shorelines of the state, the mouths of these streams form subestuaries within the City's shoreline jurisdiction along the marine shorelines.

GOAL

A. Protect and restore the ecological functions of subestuaries within shoreline jurisdiction, and their continuity and connectivity, by regulating development on surrounding lands on either side of the stream channel and/or near the stream mouth.

POLICIES

1. Development standards along stream portions lying within shoreline jurisdiction shall be regulated by this Program and be at least as protective as the City's critical areas regulations in order to achieve no net loss of ecological functions.

3.2.8 Conservation and Restoration Element

Purpose and Intent: This is an element for the preservation of the natural shoreline resources, considering such characteristics as scenic vistas, parkways, water quality, vegetation, beaches and other valuable natural or aesthetic features. This element also promotes and encourages restoration of shoreline functions and ecological processes that have been impaired as a result of past development activities.

3.2.8.1 Shoreline Stabilization

Purpose and Intent: This is a sub-element for balancing protection of existing development with conservation and restoration of coastal processes and beach resources.

GOALS

A. Where necessary to protect existing or planned development, encourage shoreline stabilization designs that minimize alterations and adverse effects to natural coastal processes and ensure no net loss of ecological function

POLICIES

1. Where protection of existing structures within shoreline jurisdiction is needed, contiguous property owners needing stabilization should be encouraged to participate.
2. Shoreline stabilization activities that may necessitate new or increased shoreline stabilization on the same or other affected properties where there has been no previous need for protection should be discouraged.
3. New development and shoreline dependent uses should be encouraged to locate so new shoreline stabilization measures are not needed.
4. Structural solutions to reduce shoreline damage should be allowed only after it is demonstrated that nonstructural solutions are not practical.
5. Whenever shoreline stabilization is needed, natural berms and vegetation should be favored over structural means.

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6. Naturalistic shoreline protection measures should be encouraged for bluff and shore stabilization, such as creation of beaches that absorb and dissipate wave energy.
7. Breakwater construction should be considered only in marine shoreline environments where the need to protect existing or planned development from high wave action is essential.

3.2.8.2 Water Quality

Purpose and Intent: This is a sub-element for the preservation and improvement of water quality in waterbodies that influence the City's shoreline resources.

GOAL

A. Prevent further deterioration of water quality and storm water quantity that would result in a net loss of shoreline ecological functions, significant impact to aesthetic qualities, or recreational opportunities, and improve water quality in the City's marine waters and streams.

POLICIES

1. Minimize the discharge of pollutants from the Marina and boats into the waters of Puget Sound through the protection of critical aquifer recharge areas and surface waters from contamination using the federal Environmental Protection Agency water quality criteria for freshwater bodies and the state Department of Ecology water quality standards for surface waters of the state.
2. Encourage the implementation of capital improvement projects in Des Moines identified by the Comprehensive Stormwater Management Program.
3. Minimize the likelihood of toxic spills and react appropriately when such spills occur.
4. Require redesign or modification of facilities contributing to pollution through toxic spills, to guard against future spills and reduce the risk of accidental spills.
5. Expand the City's water quality monitoring program implemented through its Surface Water Management Program.
6. Work with county and state programs to develop clean-up plans for those waterbodies in the City that have exceeded state water quality standards.

3.2.8.3 Vegetation Conservation

Purpose and Intent: This is a sub-element to recognize and protect the variety of functions provided by native vegetation in the nearshore environment. In addition to protecting life and property by reducing the hazard of slope failures or accelerated erosion, ecological functions include habitat formation and preservation and bank or bluff stability.

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GOAL

A. Protect plant and animal species and their habitats, to enhance shoreline uses. Vegetation along the City's shorelines and associated waterbodies should also be restored.

POLICIES

1. Preserve natural vegetation by controlling plant clearing and earth grading within the shoreline jurisdiction for new and redevelopment activities consistent with safe construction practices and in a manner that ensures shoreline ecological functions, ecosystems, and natural soil systems are not compromised.
2. Promote vegetation restoration, and the control of invasive weeds and nonnative species to avoid adverse impacts to soil hydrology, and to reduce the hazard of slope failures or accelerated erosion.
3. Encourage restoration or enhancement of native shoreline vegetation through incentives and non-regulatory programs to insure the conservation of the ecological functions provided by shoreline vegetation.

3.2.8.4 Restoration

Purpose and Intent: This is a sub-element to promote actions that restore shoreline habitat and ecological functions or processes that have been lost or impaired as a result of past development and actions.

GOAL

A. Restore shoreline habitats and seasonal ranges that support listed endangered and threatened species, as well as other anadromous fisheries.

POLICIES

1. Coordinate stream mouth restoration projects with upstream projects targeted to reduce localized flooding and improve fish passage such as culvert replacement.
2. Encourage voluntary restoration projects in degraded shoreline environments.
3. Monitor and adaptively manage restoration projects.
4. Create incentives that will make it economically or otherwise attractive for development proposals to integrate shoreline ecological restoration into development projects.
5. Establish and regulate uses located at or near stream estuaries in a manner that promotes City objectives for restoration.

GOAL

B. Restore and enhance shoreline habitats and processes on public lands.

POLICIES

1. Prioritize enhancement and restoration efforts at stream mouths, particularly in public parks.

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2. Work with owners of other publicly-owned land to encourage restoration and enhancement projects, including funding strategies.
3. Work with the public and other interested parties to prioritize restoration opportunities identified in Shoreline Inventory and Characterization Report.
4. Develop a program to implement restoration projects, including funding strategies.

GOAL

C. Develop regional solutions with others to resolve the challenge of protecting shoreline ecological functions while also protecting shoreline developments.

POLICIES

1. Work with the State, King County, Watershed Resource Inventory Area (WRIA) 9 Steering Committee, and other governmental and non-governmental organizations to explore how local governments can best address the needs for preserving ecological processes and shoreline functions.

GOAL

D. Provide ample opportunity for the public to learn about the ecological aspects and community values of the City's shorelines.

POLICIES

1. Explore opportunities with other educational organizations and agencies to develop an on-going program of shoreline education for all ages.
2. Identify areas where kiosks and interpretative signs can enhance the educational experience of users of the shoreline and develop strategies to fund these projects.
3. Develop strategies to fund these projects.

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CHAPTER 4 – RESTORATION PLANNING: ASSESSMENT, LONG-TERM GOALS AND OPPORTUNITIES

4.1 Introduction

The SMA (RCW 90.58) requires a balance of potentially conflicting goals with respect to how the state's shorelines should be used, developed and managed. For example, the need to provide places for water-dependent intensive uses such as ports, marinas, and recreation ~~must~~ shall be balanced with environmental protection of the shorelines as a natural resource.

Traditionally, enhancement or other improvements to shoreline ecological functions have either been voluntary or in the form of mitigation for impacts resulting from development. The current guidelines for updating local SMPs address this deficiency by requiring local SMPs to develop goals, policies, and actions to proactively pursue and promote restoration of the shoreline environment. The governing principles of the guidelines (WAC 173-26-186) state:

> *Through numerous references to and emphasis on the maintenance, protection, restoration, and preservation of "fragile" shoreline "natural resources," "public health," "the land and its vegetation and wildlife," "the waters and their aquatic life," "ecology," and "environment," the Act makes protection of the shoreline environment an essential statewide policy goal consistent with the other policy goals of the Act* (WAC 173-26-186(8)); and
>
> *For counties and cities containing any shorelines with impaired ecological functions, master programs shall include goals and policies that provide for restoration of such impaired ecological functions* (WAC 173-26-186(8)(c)). (emphasis added)

The guidelines to prepare or amend SMPs further states:

> *The goal of this effort is master programs which include planning elements that, when implemented, serve to improve the overall condition of habitat and resources within the shoreline area of each city and county*. (WAC 173-26-201(c)).

The guidelines define "restoration" or "ecological restoration" as "…the reestablishment or upgrading of impaired ecological shoreline processes or functions…Restoration does not imply a requirement for returning the shoreline area to aboriginal or pre-European settlement conditions" (WAC 173-26-020(27)).

In terms of shoreline management planning under the current guidelines, "restoration" is focused on areas where shoreline ecological functions have been degraded from past development activities. In this context, restoration is narrowly defined but can be broadly implemented through a combination of programmatic measures (e.g., surface water management; water quality improvement; public education) and site-specific projects (e.g., restoration of sub-estuaries/stream mouth deltas). The guidelines state that:

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> *…master program provisions shall identify existing policies and programs that contribute to planned restoration goals and identify any additional policies and programs that local government will implement to achieve its goals. These master program elements regarding restoration should make real and meaningful use of established or funded nonregulatory policies and programs that contribute to restoration of ecological functions, and should appropriately consider the direct or indirect effects of other regulatory or nonregulatory programs under other local, state, and federal laws, as well as any restoration effects that may flow indirectly from shoreline development regulations and mitigation standards* (WAC 173-26-186(8)(c)).

It is important to note that the guidelines do not state that local programs should or could require individual permittees to restore past damages to an ecosystem as a condition of a permit for new development (Ecology, 2004). However, the City does have the opportunity to add conditions to Shoreline Substantial Development, Conditional Use, and Variance permits to assure consistency with the SMA and local SMP regulations and policies. Likewise, the Department of Ecology may place conditions on Shoreline Conditional Use and Variance permits consistent with the City's SMP and the SMA. In cases where shoreline development will have unavoidable impacts requiring mitigation, the mitigation design could be informed by and coordinated with the overall SMP restoration planning objectives.

The SMA guidelines provide a framework for shoreline restoration planning as part of a local jurisdiction's SMP. This framework (WAC 173-26-201(2)(f)) includes the following:

- Through development of the shoreline inventory and characterization, identify degraded areas, impaired ecological functions, and sites with potential for ecological restoration;
- Establish overall goals and priorities for restoration of degraded areas and impaired ecological functions;
- Identify existing and ongoing projects and programs that are currently being implemented which are designed to contribute to local restoration goals (such as capital improvement programs (CIPs) and watershed planning efforts (WRIA habitat/recovery plans);
- Identify additional projects and programs needed to achieve local restoration goals, and implementation strategies including identifying prospective funding sources for those projects and programs;
- Identify timelines and benchmarks for implementing restoration projects and programs and achieving local restoration goals; and
- 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 programs in meeting the overall restoration goals (e.g., monitoring of restoration project sites).

The following sections of this report discuss these subjects as they relate to the Des Moines SMP.

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4.2 Restoration Planning

Shoreline restoration planning begins with the identification of "degraded areas" or areas with "impaired ecological functions." The City's *Shoreline Inventory and Characterization* (Adolfson, 2005) examined nearshore and ecosystem-wide processes that maintain shoreline ecological functions; identified impaired ecological functions; and identified programmatic and site-specific opportunities for restoration and/or enhancement. Key findings of the inventory and characterization are summarized in Chapter 2. The complete report is included as Appendix A.

4.3 Restoration Goals and Policies

The guidelines provide that local SMPs shall include "goals, policies and actions for restoration of impaired shoreline ecological functions." Under the guidelines, restoration planning has a purpose distinct from development regulations and mitigation standards. "The guidelines expressly focus restoration requirements on the use of master program policies, as opposed to development regulations" (Ecology, 2004). "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" (WAC 173-26-201(2)(f)).

~~The current Des Moines SMP (adopted in 1988) does not contain specific goals and policies related to restoration of shoreline habitat and ecological functions.~~ The existing SMP does contain policies related to protection of water quality and conservation of shoreline vegetation and wildlife habitat. ~~In updating the City's SMP goals and policies, a new element,~~ The "Conservation and Restoration" element was drafted to retain important conservation goals and policies and to include new goals and policies specifically addressing restoration of shoreline ecological functions that have been impaired as a result of past development activities. The conservation and restoration goals and policies are included in Chapter 3.

Commented [JW1]: Goals and policies are located in SMP 3.2.8.

4.4 Existing Plans and Programs

A number of regional and Puget Sound-wide planning efforts have been developed over several years to address water resource management, water quality, and salmon habitat recovery. These plans and programs provide a framework of goals, policies, and in some cases, funding mechanisms. These plans and programs have informed development of Des Moines' restoration goals and policies. Des Moines shoreline restoration planning goals, policies, and actions should be integrated, or at a minimum, be consistent with this broader framework of conservation and restoration work in Puget Sound.

4.4.1 Puget Sound Action Team (replaced by the Puget Sound Partnership): 2005-2007 Puget Sound Conservation and Recovery Plan

The Puget Sound ~~Action Team p~~Partnership (~~Action Team~~Partnership) defines, coordinates and implements Washington State's environmental agenda for Puget Sound. The legislature created the Puget Sound ~~Action Team~~Partnership in 1996 as the State's partnership for Puget Sound. The ~~Action Team~~Partnership includes directors from 10 state agencies and representatives from tribal, federal and local governments with direct responsibilities and authorities for conservation and restoration of Puget Sound.

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Every two years the PSAT partnership develops a plan to guide their work. The 2005-2007 plan provides a total of $182 million dollars funded through state agency budgets to address eight priority areas:

- Clean up contaminated sites and sediments;
- Reduce continuing toxic contamination and prevent future contamination;
- Reduce the harm from stormwater runoff;
- Prevent nutrient and pathogen pollution caused by human and animal wastes;
- Hood Canal: a geographic priority for 2005-2007;
- Protect shorelines and other critical areas that provide important ecological functions;
- Restore degraded nearshore and freshwater habitats; and
- Conserve and recover orca, salmon, forage fish, and groundfish (PSAT, 2005).

4.4.2 Puget Sound Nearshore Project (PSNP)

The Puget Sound Nearshore Project (PNSP) (also referred to as the Puget Sound Nearshore Ecosystem Restoration Project (PSNERP)) is a large-scale, multi-agency initiative to address habitat restoration needs in the Puget Sound basin. Nearshore Project goals are to identify significant ecosystem problems, evaluate potential solutions, and restore and preserve critical nearshore habitat. The PSRP represents a partnership between the U.S. Army Corps of Engineers (Corps), state and federal government organizations, Indian tribes, industries and environmental organizations.

A General Investigation Reconnaissance Study conducted by the U.S. Army Corps of Engineers in 2000 (USACOE, 2000) identified a direct link between healthy nearshore habitat and the physical condition of the shoreline. The study identified several actions that would be central in restoring nearshore processes to a more natural state:

- Providing marshes, mudflats, and beaches with essential sand and gravel materials;
- Removing, moving and modifying artificial structures (bulkheads, riprap, dikes, tide gates, etc.);
- Using alternative measures to protect shorelines from erosion and flooding; and
- Restoring estuaries and nearshore habitat such as eelgrass beds and kelp beds (USACOE, 2000; PSNP, 2002).

The PSNERP also provides outreach and guidance materials related to nearshore ecosystem restoration principals, concepts, and methods of implementation.

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4.4.3 Shared Strategy for Puget Sound: Draft Puget Sound Salmon Recovery Plan

Shared Strategy for Puget Sound (Shared Strategy) is a collaborative effort to protect and restore salmon runs across Puget Sound that was initiated as a result of Endangered Species Act (ESA) listings of salmonid species in the Puget Sound region. Shared Strategy engages local citizens, tribes, technical experts and policy makers to build a practical, cost-effective recovery plan endorsed by the people living and working in the watersheds of Puget Sound.

Shared Strategy has developed a draft salmon recovery plan (Shared Strategy, 2005) that provides a blueprint for salmon recovery strategies throughout Puget Sound and incorporates by reference local watershed plans for salmon recovery.

4.4.4 Water Resource Inventory Area (WRIA) 9 Forum: Salmon Habitat Plan

Des Moines is located in the Green/Duwamish and Central Puget Sound Watershed (WRIA 9) and is a participating local agency in WRIA 9 watershed planning. ~~After several years of planning and scientific study,~~ WRIA 9 ~~recently~~ completed its ~~the~~ Salmon Habitat Plan ~~(WRIA 9,~~in 2005~~)~~. As of early 2019, the WRIA 9 Ecosystem Forum was in the process of updating the Salmon Habitat Plan primarily to address the impacts of climate change. The Plan is both broad in scope and specific in recommendations for protection, enhancement, and restoration of habitat in the marine nearshore subwatershed, including Puget Sound in the City of Des Moines. The Plan includes recommended policies, programs, and projects. Key **nearshore** policies most directly relevant to the City of Des Moines include:

- Encourage nearshore property owners to continue the replacement of creosote pilings and structures with non-creosote alternatives as well as the removal of obsolete / abandoned facilities that contain significant amounts of creosoted wood; and
- Actively feed beaches, where appropriate, with sediment where there is a lack of sediment due to interrupted supply from bulkheads or other forms of shoreline armoring (WRIA 9, 2005).

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4.4.5 City of Des Moines Surface Water Management Program

The City's Surface Water Management Program is guided by the *Surface Water Comprehensive Plan* (adopted in 2015), as amended~~*Comprehensive Stormwater Management Plan* (adopted in 1991), a draft updated Comprehensive Plan (1998), and regional multi-jurisdiction basin plans such as the *Des Moines Creek Basin Plan* (1997)~~. The City's Surface Water Capital Improvement Program identifies, funds, and implements site-specific projects intended to provide flood control or alleviation, improve and enhance riparian habitat, replace culverts to improve fish passage, and improve water quality from stormwater runoff. While the City's Surface Water Management Program is focused on freshwater resources in the City (none of which are regulated under the City's SMP), capital projects to improve habitat and stream flow will affect downstream resources that are in the City's shoreline jurisdiction (i.e., stream mouths discharging to Puget Sound).

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4.5 Restoration Opportunities

When identifying, evaluating, and prioritizing opportunities for restoration, the concept of "restoration" in the context of SMP planning should be linked to two key concepts:

1. Restoration or enhancement should support the overarching goal that local SMPs "serve to improve the overall condition of habitat and resources within the shoreline area"; and
2. Restoration should be designed to address areas where shoreline ecological functions have been impaired as a result of past development activities.

Both programmatic and site-specific opportunities for shoreline restoration or enhancement exist in Des Moines. Opportunities have been identified by both regional plans (e.g., WRIA 9 Salmon Habitat Plan and related studies) and the City's *Shoreline Inventory and Characterization* (Adolfson, 2005).

4.5.1 Programmatic Opportunities

The WRIA 9 Salmon Habitat Plan recommends development of several programs relevant to the City of Des Moines SMP update. The programs would be developed by King County in coordination with local jurisdictions and could be implemented at the local level by the County or by the City of Des Moines. These include:

- *Promote Habitat Restoration on Private Property by Offering a "Toolbox" of Nearshore Habitat Project Designs.* This program would promote voluntary restoration on private property by creating a "toolbox" of model habitat design and shoreline restoration actions. Types of actions could include removal of unneeded shoreline armoring and/or derelict structures, and rehabilitation of marine riparian vegetation. The program would provide technical assistance to landowners and would seek to develop incentives to encourage voluntary restoration projects on private property.
- *Create a Soft Armoring Technical Assistance and Cost-Share Program*. This program would promote voluntary replacement of traditional "hard" shoreline armoring (concrete/riprap/wooden bulkheads) with "soft-shore" armoring techniques where appropriate and feasible. Specific designs would vary from site to site depending on the site's unique characteristics. A number of case studies and example designs are provided in *Alternative Bank Protection Methods for Puget Sound Shorelines* (Ecology, 2000). An area in Des Moines that would most directly benefit from this type of program is the Woodmont Neighborhood. Much of the shoreline in this neighborhood is privately owned with a majority being developed single-family residential areas and local streets. However, public education or incentives for shoreline bulkhead removal could help restore natural shoreline processes in this formerly important reach of feeder bluff (Adolfson, 2005), as well as at other sites.
- *Citizen Volunteer Forage Fish Monitoring Program*. This program would offer an opportunity for citizens to work with biologists and participate in data gathering to better identify and monitor forage fish spawning areas.

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- *An Incentive Program to Encourage Multiple Family/Neighborhood Use of Docks and Boat Ramps*. This program would be focused on new development or redevelopment in areas where private docks, piers, and boat ramps are located very close to one another. This program is less relevant to the City of Des Moines' shoreline, since boat launch and moorage facilities are already concentrated at community locations such as the Des Moines Marina and the Redondo Boat Launch. Nonetheless, the City may consider policies in its SMP consistent with this concept.

In addition to, and consistent with, these programmatic opportunities the City's *Shoreline Inventory and Characterization* (Adolfson, 2005) identified programmatic opportunities in the form of public information and awareness:

- *Information kiosks at the Des Moines waterfront.* Informational kiosks could also be erected at shoreline public access locations in the City of Des Moines. The kiosks would serve to educate the public on the importance of the nearshore area and coastal processes, what they can do to help preserve or improve what remains, and what wildlife viewing opportunities exist. A good example of this type of kiosk is located in Des Moines Beach Park.
- *Technical assistance and public outreach for riparian planting enhancement or rehabilitation.* This program could be developed in concert with the "toolbox" program described above as part of the WRIA 9 Salmon Habitat Plan. The program could develop specific technical assistance for appropriate plantings in both marine riparian zones and along freshwater streams that discharge to Puget Sound in the City of Des Moines.

4.5.2 Site-Specific Opportunities

The City's *Shoreline Inventory and Characterization* (Adolfson, 2005) evaluated and described how shoreline ecological functions have been impaired in the City of Des Moines and identified several site-specific opportunities for restoration or enhancement. Additional site-specific opportunities have been identified through WRIA 9 planning efforts (Coastal Geologic Services, Inc., 2005). These are described below for neighborhoods and specific shoreline waterfront properties.

- *Des Moines Beach Park.* Restoration could include the removal of the riprap revetment from the mouth of Des Moines Creek and possibly north towards the northern city boundary (labeled A-1 on photo). The artificial no-bank park shoreline could be pulled back a bit with riprap and replaced with

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alternative "soft shore protection" techniques. Such "biotechnical" or "bioengineering" techniques could include imported gravel and sand, anchored drift logs or other large woody debris and be combined with marine riparian plantings along the shoreline and on the north side of Des Moines Creek. This would improve subestuary and delta functions, increase habitat quantity and quality for both terrestrial and aquatic animals using the shoreline, and expand beach recreation. Opportunities on the south side of the stream mouth (labeled A-2 on photo) could include the removal of the existing rock revetment and concrete bulkhead on the north side and the former boat ramp. The bulkhead could be replaced with soft shore protection techniques and marine riparian plantings. This would require removal of some fill material from the site and moving the existing path landward. A pocket beach could be created that would be largely in the shelter of the marina breakwater and would provide a new recreation beach. This would improve the subestuary and delta as well as provide additional aquatic (including forage fish spawning habitat) and terrestrial wildlife habitat, and beach recreation. Removal of the failing revetment north towards the City limits is another possible action that would allow sediment to migrate from upland areas to the shoreline and improve beach habitats.

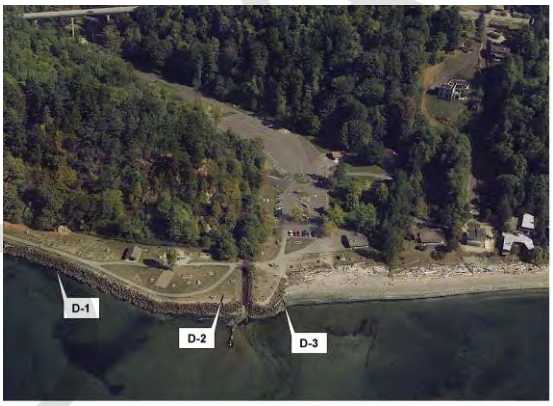
- *Des Moines Marina.* Redevelopment of the marina is planned and described in the *Marina Master Plan* (City of Des Moines, ~~2001~~2007), as amended. Opportunities during redevelopment over the years are related to improvement of water quality in the marina, including development or refinement of operational Best Management Practices (BMPs) for handling of and storage of fuels, and other contaminants associated with boating. The replacement of the timber seawall with non-creosote materials (steel sheet pile structure) has been identified in the master plan.

- *Zenith Neighborhood / Massey Creek.* Opportunities include the removal of riprap from the mouth of Massey Creek on the south bank (the north bank is currently part of the Des Moines Marina breakwater) (labeled C-1 on photo). The riprap could be replaced with soft shore protection

techniques (possibly with some rock to remain) combined with marine riparian plantings along the shoreline and on the south bank of Massey Creek. With net shore-drift to the north in this area, the beach should continue to accrete such that erosion is not a threat here. Stream flow would need to be quantified to allow analysis of the expected amount of stream mouth closure as compared to salmon return periods. The removal of riprap would provide improvements to the subestuary and delta, and riparian plantings would increase habitat quantity and quality for both terrestrial and aquatic animals using the shoreline. The creation of a much larger estuary to provide additional habitat benefits would likely require purchasing the property and possibly removing the building immediately south of the creek. Riprap and fill could be removed from the south bank (and possibly riprap from the north bank) landward of the marine shore to enlarge the estuary. This site was also identified in the *WRIA 9 Salmon Habitat Plan* as *Project NS-13: Massey Creek Pocket Estuary Restoration in Des Moines.* Identification in this regional plan increases the likelihood of funding and implementation.

One failed bulkhead is present approximately at South 245th Street in the Zenith neighborhood (not shown on photo). The wooden soldier pile wall is over a portion of the intertidal beach (Coastal Geologic Services, Inc. 2005) and is no longer functioning to protect the bluff from erosion. Simple pile removal would help restore natural beach conditions and bluff processes. Some of these may be creosoted piles, so additional water quality benefits could be achieved.

- *Saltwater State Park.* Opportunities at Saltwater State Park could include the removal of the riprap armoring from the mouth of McSorley Creek north to the northern park boundary (D-1 and D-2 on photo). The riprap could be replaced with soft shore armoring techniques and beach nourishment materials combined with marine riparian plantings along the shoreline. This would provide additional forage fish spawning areas, and increase recreational opportunities and may allow sediment to migrate from upland areas to the shoreline. The removal of riprap and return of the area to more natural beach conditions would require the removal of substantial amounts of fill material landward of the existing riprap wall and the removal and replacement of the paved walkway. Partial restoration could occur where the riprap revetment is removed from the stream to north of the restroom, with some rock and soft shore protection placed landward of the restroom. Opportunities at the park could also include the complete removal of riprap and fill in the lower reach of McSorley Creek and along both sides of the channel at the mouth of the stream. Retention of some type of structure or existing riprap on the south side of the stream channel would maintain the stream in or near its



present condition, but removal of the riprap would allow for a more dynamic and functioning stream delta. This would increase the size and quality of the subestuary and delta and fish access to the stream, as well as provide additional aquatic and terrestrial wildlife habitat.

South of the stream mouth, opportunities could include the removal of riprap and replacement with soft shore protection (labeled D-3 on photo). Net-shore drift currently moves sediments northward. The existing riprap causes accretional deposits of sediments at the existing swimming beach to the south. A complete removal of the riprap armoring without any replacement structure may cause the existing beach to erode. The presence of the riprap wall, which extends the mouth of McSorley Creek into Puget Sound, causes some of the stream sediment to be deposited in the lower intertidal area, instead of entering directly onto the beach to the north. The placement of soft shore protection in place of the riprap would likely not produce accretional deposits at current rates associated with the riprap, but the soft-shore armoring would help to maintain the existing beach. The park is owned and maintained by the Washington State Department of Parks and Recreation. This site was also identified in the *WRIA 9 Salmon Habitat Plan* as *Project NS-15: McSorley Creek Pocket Estuary Restoration in Des Moines.* Identification in this regional plan increases the likelihood of funding and implementation.

- *Woodmont / Redondo North Neighborhoods.* Several failed bulkheads are present approximately 2,000 feet south of the southern boundary of Saltwater State Park. These include a cluster of three wooden soldier pile walls in the intertidal beach (Coastal Geologic Services, 2005) that are no longer protecting the bluff from erosion. Simple pile removal would help restore natural beach conditions and bluff processes. Some of these may be creosoted piles, so additional water quality benefits could be achieved. The Woodmont Creek subestuary and delta have been severely impaired by shoreline armoring and shoreline development. Woodmont Creek is culverted beneath residential areas and roadways for a distance of approximately 500 feet from the mouth. This is likely a fish passage barrier to anadromous salmonids. Removal of the culverts and other barriers could provide a longer-term goal for restoration of the stream, but access to houses is a significant problem to overcome for this type of project.

- *Redondo South Neighborhood.* Restoration/enhancement opportunities are limited due to the existing large seawall that extends along much of the shoreline. However, opportunities do exist for public education targeted at private landowners along Cold Creek. Cold Creek, north of Redondo Beach Drive South, flows through a residential area, where it has been channelized (G-1 on photo).

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The lower reach of the stream contains no structure and has little riparian cover. An opportunity exists to educate landowners on the benefits to salmonids and other fish from adequate riparian habitats associated with the streams where they live, and to try to implement a stream restoration project. Landowners could be given the chance to improve habitat in an organized way and to have salmon spawn in their backyards. Removal or pullback of riprap, riparian plantings, and installation of large woody debris (LWD) would be the basis of a stream restoration project. The existing box culvert at the mouth of the stream could be further investigated, but this culvert appears to allow fish access from the beach under the road at high tide. The National Oceanic and Atmospheric Administration (NOAA) Community Based Restoration Program would be an ideal fit for funding this type of project.

As mentioned above, the City's *Surface Water Management* ~~2005~~*2019*-~~2007~~-*2025 Capital Improvement Program* identifies and funds several site-specific projects. While most of these projects are not located along the marine shoreline, their implementation will improve habitat and flow regimes in key streams that discharge to Puget Sound. As such, they are worth noting in the context of shoreline restoration planning. Key projects include:

UPDATED PROJECT INFORMATION

- Barnes Creek / Kent-Des Moines Road Culvert (2018-2020). This project is a culvert replacement project that is needed to remove a significant fish passage obstruction to nearly a mile of fish habitat. This project is a high priority culvert replacement and a Culvert Case Injunction culvert. The project is a shared project with the Washington Department of Transportation.
- Deepdene Plat Outfall Replacement (2018-2019). This project replaces a storm outfall to Puget Sound that was damaged from a recent landslide.
- 6th Avenue / 239th Pipe Replacement (2019-2020). This project involves replacing a storm outfall to Puget Sound that has been damaged from saltwater corrosion.
- ~~*Des Moines Creek Basin Projects (2004-2006).* Habitat improvements include removal of fish passage obstructions and stream restoration (e.g., creation of spawning pools; placement of anchored large woody debris and boulders; and installation of bio-engineered riparian vegetation to stabilize banks and provide shade).~~
- ~~*Marine View Drive Bridge Replacement (2006).* Includes improvements to enable fish passage to upper portions of Des Moines Creek.~~
- ~~*Lower Massey Creek Channel Modifications (2007-2008).* Involves widening the stream channel to alleviate flooding and to restore fish habitat (via addition of spawning gravel, creation of eddy pools, riparian enhancement for shade, etc.).~~
- ~~*McSorley Creek Basin Plan (2007).* While not site-specific, development of this comprehensive basin plan could consider and prioritize potential stream mouth restoration at Saltwater State Park, where McSorley Creek discharges to Puget Sound.~~

Commented [JW4]: Added by the Surface Water Management Division.

4.6 Funding and Partnership Opportunities

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Funding opportunities for restoration projects include both grants and legislative funds administered by state agencies. For potential projects in Des Moines, the greatest likelihood to obtain funding would result from strategic partnering with King County and state and federal agencies. Targeting funding requests to sediment supply for nearshore habitats such as forage fish spawning enhancement or pocket estuary enhancement would fit well into the science and restoration plans/goals of the organizations listed below. A few of the programs and organizations most relevant to Des Moines are described below.

4.6.1 Puget Sound ~~Action Team~~Partnership

The state legislature has appropriated a total of $182,347,323 for state agencies and university education programs for implementing the *2005-2007 Puget Sound Conservation and Recovery Plan* (PSAT, 2005). Funding is allocated by both priority area (e.g., habitat restoration (13 percent), stormwater (29 percent)) and state agency (e.g., Ecology, WDFW, WSU Extension, etc.). The habitat restoration funds would be the best fit for opportunities in Des Moines.

4.6.2 Puget Sound Nearshore Project/Partnership

The U.S. Army Corps of Engineers and the Washington State Department of Fish and Wildlife entered into a 50/50 cost share agreement in 2002 to initiate a general investigation study. In coordination with several other agencies and organizations, the project has allowed engineers and scientists to begin to assess and identify restoration goals, work towards protection actions, and develop criteria to set priorities and develop projects in the Puget Sound nearshore environment (PSNP, 2002). To date, these efforts have resulted in technical studies and technical reports providing guidance for development of restoration projects (PSNP, 2004a, 2004b), but not on-the-ground projects.

4.6.3 Salmon Recovery Funding Board

With the listing of salmonid species under the Endangered Species Act in 1999, the Legislature created the Salmon Recovery Funding Board- (SRFB). Composed of citizens appointed by the Governor and five state agency directors, the Board provides grant funds to protect or restore salmon habitat and assist related activities. It works closely with local watershed groups and has helped finance over 500 projects. The Salmon Recovery Funding Board awarded $7.1 million during the first five funding cycles for salmon habitat protection, restoration, and assessment projects in the Green/Duwamish and Central Puget Sound Watershed (WRIA 9). These grants build on other funding sources such as the King County Conservation District and Waterways 2000. The two site-specific opportunities in Des Moines (pocket estuary restoration at the mouths of Massey and McSorely Creeks; described above) that have been identified in the WRIA 9 Salmon Habitat Plan are good candidates and have the greatest likelihood of receiving SRFB funding.

4.6.4 King County Conservation District

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UPDATED BACKGROUND INFORMATION

The King Conservation District (KCD) is a non-regulatory natural resources assistance agency founded in 1949. The Conservation District is authorized by the State of Washington and guided by the Washington State Conservation Commission. The District promotes conservation through demonstration projects, educational events, technical assistance, and, in some cases, providing or pointing the way to funds that may be available for projects. The WRIA 9 Watershed Ecosystem Forum garners approximately $1.7 million annually in Cooperative Watershed Management Grants obtained through the King County Flood Control District. In addition, WRIA 9 has been successful in obtaining Salmon Recovery Funding Board (SRFB) grants averaging over $1.3 million annually over the last 10 years that have leveraged an additional $1.6 million annually in local, state, and federal funds. Several land conservation projects have also been funded through the Puget Sound Acquisition and Restoration (PSAR) grant program. Listed in the 2005 Salmon Recovery Plan are the pocket estuary restoration projects at the mouths of the Des Moines, Massey, and McSorley creeks. The McSorley Creek Estuary project ranked 14th out of 49 nearshore projects by the SRFB. WRIA 9 was awarded $690,000 for the design of the project. The McSorley Creek project is presently under pre-design with construction work anticipated within the next three years. ~~The WRIA 9 Forum allocates approximately $634,000 in King Conservation District funds annually to support habitat protection and restoration projects, stewardship projects and programs, and essential technical assessments. The money comes from a county-wide $5 per parcel assessment that funds the activities of the King Conservation District as well as projects through other watershed forums in King County. Beginning in 2005, the highest priority for WRIA 9 KCD funding includes projects and programs that are informed by the watershed Habitat Plan and the Strategic Assessment, such as the pocket estuary restoration projects at the mouths of Massey and McSorely Creeks in Des Moines.~~

Commented [JW5]: Added by the Surface Water Management Division.

4.6.5 NOAA Community-Based Restoration Program

The NOAA National Marine Fisheries Service manages the Community-Based Restoration Program (CRP), begun in 1996. The Program promotes local efforts to conduct meaningful, on-the-ground restoration of marine, estuarine and riparian habitat. The Program provides seed money and technical expertise to address important fishery habitat concerns. Projects are developed by individual and civic organizations. NOAA solicits proposals for locally-driven habitat restoration projects and works closely with communities to aid their development and implementation. Successful projects result from significant local support, including citizens' hands-on involvement to implement the restoration projects. Following development of a restoration project, the "host" community subsequently monitors and maintains the site. This model promotes stewardship and a heightened appreciation for the environment. The small scale of the some of the stream mouths in Des Moines makes this a good potential source of funding for restoration projects outlined in this document.

4.6.6 Des Moines Surface Water Management CIP

The Des Moines Surface Water Management Capital Improvement Program funds projects through a combination of CIP funds and grants and/or funding partners for multi-jurisdiction projects such as development of comprehensive basin plans. While the Surface Water Management Program is focused on freshwater resources, the City could consider adding a Puget

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Sound nearshore restoration component to its capital program, focused on opportunities at stream mouths. The WRIA 9 Salmon Habitat Plan includes projects that effect the shoreline. Funding sources would include grants and partnership opportunities.

Commented [JW6]: Requested by the Surface Water Management Division.

4.6.7 Other Possible Funding Sources

- Aquatic Lands Enhancement Account – Washington Department of Natural Resources
- City Fish Passage Barrier, Stormwater and Habitat Restoration Grant Program - Washington Department of Transportation
- Five-Star Restoration Program - Environmental Protection Agency
- FMC Corporation Bird and Habitat Conservation Fund - FMC Corporation and The National Fish and Wildlife Foundation
- Habitat Conservation - U.S. Fish and Wildlife Service Coastal Program
- Matching Aid to Restore States Habitat (MARSH) - Ducks Unlimited
- Non-point Source Implementation Grant (319) Program - Environmental Protection Agency, Washington State Department of Ecology
- Pacific Grassroots Salmon Initiative - National Fish and Wildlife Foundation
- Puget Sound Program - U.S. Fish and Wildlife Service
- Puget Sound Wetland Restoration Program - Washington State Department of Ecology
- Regional Fisheries Enhancement Groups - Washington State Department of Fish and Wildlife
- Salmon Recovery Funding Board - Interagency Committee for Outdoor Recreation
- Section 204: Environmental Restoration Projects in Connection with Dredging - U.S. Army Corps of Engineers
- Section 206: Aquatic Ecosystem Restoration Program - U.S. Army Corps of Engineers
- Transportation Equity Act for the 21st Century (TEA-21) - Washington Department of Transportation
- Washington State Ecosystems Conservation Program - U.S. Fish and Wildlife Service
- Wetland Protection, Restoration, and Stewardship Discretionary Funding - Environmental Protection Agency

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4.7 Relief from SMP Development Standards and Use Regulations

Commented [JW7]: Required by Ecology checklist 2009 (a).

RELIEF FOR CERTAIN RESTORATION PROJECTS - REQUIRED BY ECOLOGY

The City of Des Moines may grant relief from shoreline master program development standards and use regulations resulting from shoreline restoration projects within urban growth areas consistent with criteria and procedures in WAC 173-27-215.

1. Purpose of section. This section incorporates statutory direction from RCW 90.58.580. In adopting RCW 90.58.580, the legislature found that restoration of degraded shoreline conditions is important to the ecological function of our waters. However, restoration projects that shift the location of the shoreline can inadvertently create hardships for property owners, particularly in urban areas. Hardship may occur when a shoreline restoration project shifts Shoreline Management Act regulations into areas that had not previously been regulated under the act or shifts the location of required shoreline buffers. The intent of this section is to provide relief to property owners in such cases, while protecting the viability of shoreline restoration projects.

2. Conditions and criteria for providing relief. The City may grant relief from shoreline master program development standards and use regulations within urban growth areas when the following apply:

   a. A shoreline restoration project causes or would cause a landward shift in the ordinary high water mark, resulting in the following:

      i. Land that had not been regulated under this chapter prior to construction of the restoration project is brought under shoreline jurisdiction; or

      ii. Additional regulatory requirements apply due to a landward shift in required shoreline buffers or other regulations of the applicable shoreline master program; and

      iii. Application of shoreline master program regulations would preclude or interfere with use of the property permitted by local development regulations, thus presenting a hardship to the project proponent;

   b. The proposed relief meets the following criteria:

      i. The proposed relief is the minimum necessary to relieve the hardship;

      ii. After granting the proposed relief, there is net environmental benefit from the restoration project;

      iii. Granting the proposed relief is consistent with the objectives of the shoreline restoration project and consistent with the shoreline master program; and

      iv. Where a shoreline restoration project is created as mitigation to obtain a development permit, the project proponent required to perform the mitigation is not eligible for relief under this section; and

   c. The application for relief must be submitted to the department of Ecology for written approval or disapproval. This review must occur during Ecology's normal review of a shoreline substantial development permit, conditional use permit, or variance. If no such

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permit is required, then Ecology shall conduct its review when the City provides a copy of a complete application and all supporting information necessary to conduct the review.

i. Except as otherwise provided in subsection (3) of this section, Ecology shall provide at least twenty days notice to parties that have indicated interest to Ecology in reviewing applications for relief under this section, and post the notice on its web site.

ii. Ecology shall act within thirty calendar days of the close of the public notice period, or within thirty days of receipt of the proposal from the City if additional public notice is not required.

3. The public notice requirements of subsection (2)(c) of this section do not apply if the relevant shoreline restoration project was included in the City shoreline master program or shoreline restoration plan, provided:

Commented [DL8]: This language is in the WAC.

a. The restoration plan has been approved by Ecology under applicable shoreline master program guidelines;

b. The shoreline restoration project is specifically identified in the shoreline master program or restoration plan or is located along a shoreline reach identified in the shoreline master program or restoration plan as appropriate for granting relief from shoreline regulations; and

c. The shoreline master program or restoration plan includes policies addressing the nature of the relief and why, when, and how it would be applied.

4. A substantial development permit is not required on land within urban growth areas as defined in RCW 36.70A.030 that is brought under shoreline jurisdiction due to a shoreline restoration project creating a landward shift in the ordinary high water mark.

5. The definitions in this subsection apply throughout this section unless the context clearly requires otherwise.

6. For the purposes of this subsection, "Shoreline restoration project" means a project designed to restore impaired ecological function of a shoreline.

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4.8 Implementation and Monitoring

The Puget Sound Nearshore Project/Partnership (PNSP) is working to develop an approach to nearshore ecosystem recovery. The approach is fundamentally based on strategic principles and concepts to guide ecosystem recovery in Puget Sound. These concepts ~~are~~ were described in guidance publications prepared by PSNP (2004a; 2004b; 2003). The strategic principles and concepts ~~are~~ were organized into five sections, briefly summarized below:

- **Purpose and Need**. Potential restoration projects should be consistent with overarching goals and objectives. For example, the PSNP mission is to "protect and restore the functions and natural processes of Puget Sound nearshore ecosystems in support of the natural resources and beneficial uses of Puget Sound and the Puget Sound Basin."
- **Fundamental assumptions and concepts**. This includes a fundamental understanding of nearshore ecosystems and their properties, including physical and chemical factors, ecosystem structure, and biological communities. There is also a need to recognize the importance of landscape ecology and the role of population ecology in the ecosystem.
- **Restoration Principles**. Restoration planning should be strategic and restoration design should be based on carefully developed goals and objectives. Follow-through, or monitoring, should be employed, including development of performance criteria and use of adaptive management in project development.
- **Adaptive Management Principles**. Adaptive management is a process that uses research and monitoring to allow projects to proceed, despite inherent uncertainty and risk regarding its consequences. Adaptive management is best accomplished at a regional or watershed scale, but can be used at a project level to increase knowledge about nearshore ecosystems and how they respond to restoration actions.
- **Monitoring Principles**. Three types of monitoring are defined: implementation, effectiveness, and validation. Monitoring should be driven by specific questions, goals, and objectives and should be used as the basis for determining if restoration goals are being met. Monitoring should be long-term, interdisciplinary, and interinstitutional. Another component of monitoring is information management; data should be well documented and available to others.

The WRIA 9 Salmon Habitat Plan (WRIA 9, 2005) notes that the prioritization and implementation of marine nearshore projects in 2006 and beyond should consider findings from two key studies ~~currently underway and scheduled to be completed this fall and winter~~:

- *Inventory and Assessment of Current and Historic Beach Feeding Sources/Erosion and Accretion Areas for WRIAs 8 and 9* (Johannessen and MacLennan, 2005); and
- *Habitat Prioritization in Marine Nearshore Areas in Support of Juvenile Salmonid Growth and Survival in WRIA 9*.

Both of these studies include the Puget Sound shoreline in Des Moines.

A recent restoration project illustrates a type of project that could be designed and implemented in Des Moines. The following project description ~~is~~ was summarized from the WRIA 9 website,

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hosted by King County Department of Natural Resources and Parks: (http://dnr.metrokc.gov/wrias/9/SRFB-seahurst-park-bulkhead-construction.htm).

> The Seahurst Park Bulkhead Removal and Beach Restoration Project was constructed between November 2004 and February 2005 at Seahurst Park in the City of Burien. The park provides nearly one mile of Puget Sound shoreline, habitat for rearing salmonids, including Chinook salmon. The park contained a sea-wall or bulkhead, constructed in the 1970s. Since that time, beach elevations in Seahurst Park have dropped three to four feet due to wave scouring and the disconnection of the beach from primary sediment sources. These changes had significantly degraded habitat quality for salmon and the organisms they depend on, particularly forage fish. Led by the City of Burien and supported by the WRIA 9 Forum, a $100,000 seawall removal assessment was prepared, funded by SRFB and the City of Burien. Following this feasibility study, the bulkhead removal and beach restoration project was developed. Led by the City of Burien and the U.S. Army Corps of Engineers, funding commitments included $190,500 funded by SRFB, a $190,500 match by the City of Burien, and $707,000 from the U.S. Army Corps of Engineers. Implementation of the project included removal of about 1,400 feet of failing shoreline armoring and beach nourishment (importing sediment) in the southern portion of the park. Through reconnecting the sediment supply, the beach will be naturally replenished. The project goal is to restore self-sustaining nearshore habitat and ecological processes to avoid the need for on-going human intervention. A series of pre-project monitoring reports were prepared to document baseline conditions for topics such as beach topography, eelgrass, benthic invertebrates, and forage fish use. Monitoring at Seahurst Park was mostly funded by grants. The monitoring reports also established post-restoration monitoring to quantify and evaluate the benefits from the project.

Before and after photos from the project (compliments of Jim Johannessen, Coastal Geologic Services):

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Like the Seahurst Park project, monitoring and evaluation of restoration activities is typically associated with individual projects. Funding individual site-specific projects should include provisions for long-term monitoring. However, the City could also consider development of a comprehensive monitoring and evaluation strategy for its updated SMP. In keeping with the overall goal that the updated master program "improve the overall condition of habitat and resources within the shoreline area," the City could prepare an evaluation every 2 or 3 years that would document development, mitigation, restoration, and voluntary activities that had an affect on the shoreline. This type of periodic "system-wide" evaluation would serve to monitor conditions over time and provide some measure of performance in the context of master program restoration and protection goals and objectives.

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4.9 References

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CHAPTER 5 – SHORELINE ENVIRONMENT DESIGNATIONS

In order to plan and effectively manage shoreline resources and to provide a uniform basis for applying policies and use regulations within distinctively different shoreline areas, a system of categorizing shoreline areas is required by the SMA. Shoreline environment designations are based on shoreline ecological functions, existing development patterns, potential for restoration, and community aspirations. Des Moines' shoreline is divided into four shoreline environments: "high-intensity," "urban conservancy," "shoreline residential," and "aquatic" environments as depicted on Figure 5-1.

Uses are encouraged in each environment that enhance the character of that environment. Development and performance standards regulate use activities in accordance with the purpose and management policies expressed for each shoreline environment. Additionally, in accordance with Ecology guidelines (WAC 173-26-211(3)), the shoreline environment designations and their respective management policies and regulations should be consistent or compatible with the Greater Des Moines Comprehensive Plan. The shoreline environment designations established by the SMP are consistent and compatible with land use designations adjacent to Puget Sound, and the conservation and environmental protection policies contained in the comprehensive plan.

Each shoreline environment designation type includes:

1. A purpose that clarifies the meaning and intent of the designation;
2. General management policies designed to regulate uses and development consistent with the character of the environment;
3. Designation criteria for determining the appropriate application of the environment designation to the shoreline; and
4. A general description of the boundaries where the environment designation is applied.

The purpose and general management policies of each designation have been used to inform the regulations that determine allowed and prohibited shoreline modifications and uses within each environment designation. The Shoreline Master Program Permitted Use Table (Table 6-1) identifies allowable modifications and uses in each of the four shoreline environments. In the case that inconsistencies exist between general management policies included within this chapter and Table 6-1, the table will govern.

Any areas within the City's shoreline jurisdiction that have not been mapped and designated shall be designated Urban Conservancy and will be managed and regulated under the identified goals, policies, and regulations of the Urban Conservancy designation.

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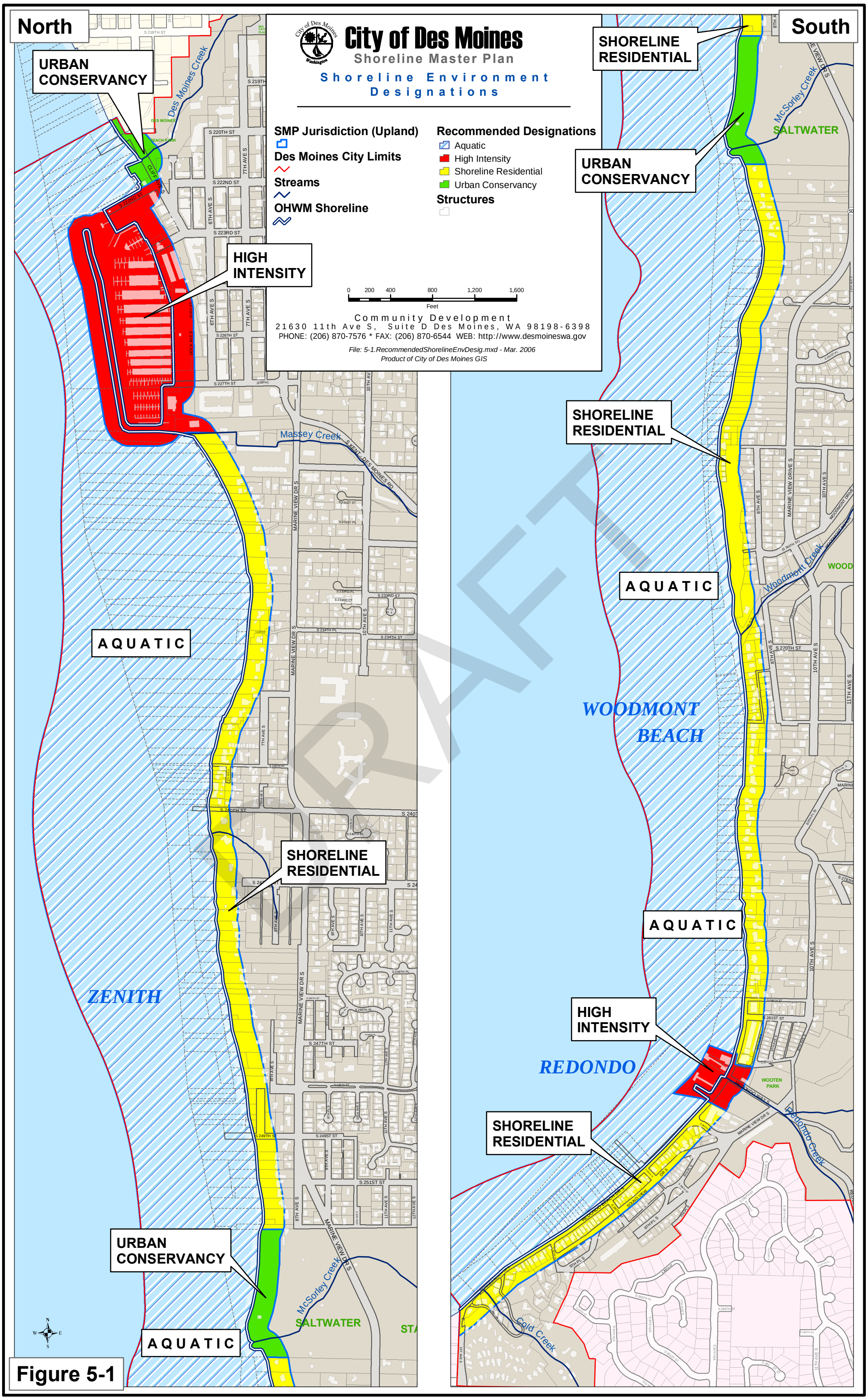
City of Des Moines
Shoreline Master Plan
Shoreline Environment Designations
SMP Jurisdiction (Upland)
Des Moines City Limits
Streams
OHWM Shoreline
Recommended Designations
Aquatic
High Intensity
Shoreline Residential
Urban Conservancy
Structures
0 200 400 800 1,200 1,600
Feet
Community Development
21630 11th Ave S, Suite D Des Moines, WA 98198-6398
PHONE: (206) 870-7576 * FAX: (206) 870-6544 WEB: http://www.desmoineswa.gov
File: 5-1.RecommendedShorelineEnvDesig.mxd - Mar. 2006
Product of City of Des Moines GIS
North
South
URBAN CONSERVANCY
HIGH INTENSITY
SHORELINE RESIDENTIAL
AQUATIC
ZENITH
URBAN CONSERVANCY
AQUATIC
SHORELINE RESIDENTIAL
AQUATIC
WOODMONT BEACH
HIGH INTENSITY
REDONDO
SHORELINE RESIDENTIAL
Des Moines Creek
Massey Creek
McSorley Creek
Woodmont Creek
Redondo Creek
Cold Creek
SALTWATER
WOODMONT
WOOTEN PARK
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Figure 5-1

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5.1 High-Intensity Environment

5.1.1 Purpose

The purpose of the "high-intensity" environment is to provide for high-intensity water-oriented commercial and transportation uses while protecting existing ecological functions. Opportunities to restore or enhance degraded ecological functions should be identified and implemented during redevelopment of high-intensity areas. "High intensity" areas should maintain open space along the shoreline and the natural character of the shoreline to the extent possible, to make these areas vibrant parts of the City. An additional purpose is to provide appropriate public access and recreational uses.

5.1.2 Management Policies

1. Full utilization of existing urban areas should be achieved before further expansion is allowed. Consideration should be given to the potential for displacement of nonwater-oriented uses with water-oriented uses when analyzing full utilization of urban waterfronts and before considering expansion of such areas.
2. In regulating uses within "high-intensity" designated areas, first priority should be given to water-dependent uses. Second priority should be given to water-related and water-enjoyment uses. Non-water-oriented uses should not be allowed except as part of mixed-use developments. Non-water-oriented uses may also be allowed in limited situations where they do not conflict with or limit opportunities for water-oriented uses, as demonstrated through a shoreline use analysis or special area planning process, as described in WAC 173-26-200 (3)(d).
3. Create development standards for setbacks, buffers, shoreline stabilization, vegetation conservation and enhancement, critical areas protection, and water quality to assure no net loss of shoreline ecological functions, and contribute to the restoration of ecological functions over time in areas where ecological degradation has occurred.
4. Redevelopment and renewal of substandard high intensity areas should be encouraged in order to accommodate future users and make maximum use of the shoreline.
5. Aesthetic considerations should be actively promoted by means of sign control regulations, architectural design standards, planned unit development standards, landscaping requirements and other such means.
6. The City should encourage new development or redevelopment plans to include environmental cleanup, restoration components, or otherwise result in the overall improvement of shoreline conditions. At a minimum, development plans should result in no net loss of shoreline ecological functions.
7. To enhance the waterfront and ensure maximum public use, commercial facilities in the "high intensity" areas should be designed to permit pedestrian waterfront activities consistent with public safety and security.
8. Emphasis should be given to developing visual and physical access to the shoreline in "high intensity" areas.

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5.1.3 Designation Criteria

High-intensity environments are shoreline areas that currently support high-intensity uses related to commerce, transportation or navigation; or are suitable and planned for high-intensity water-oriented uses.

5.1.4 Boundary Description

1. The limits of shoreline jurisdiction between South 222nd Street and Massey Creek as shown on Figure 5-1, representing the official Des Moines SMP map. This area includes the Des Moines Marina and other water-dependent development.
2. The limits of shoreline jurisdiction between South 282nd Street and South 283rd Street as shown on Figure 5-1, representing the official Des Moines SMP map. This area includes the Redondo Boat Launch, the Highline Community College Marine Science and Technology Center, and other water-oriented development.

5.2 Urban Conservancy Environment

5.2.1 Purpose

The purpose of the "urban conservancy" environment is to protect and restore ecological functions in urban and developed settings, while allowing a variety of compatible uses. This environment applies to publicly owned areas in the shoreline jurisdiction, including Des Moines Beach Park and Saltwater State Park. These public lands may offer conservation and/or restoration opportunities, such as conserving and enhancing nearshore and stream channel habitat. An additional purpose is to provide appropriate public access and recreational uses.

5.2.2 Management Policies

1. The primary allowed uses should preserve the natural character of the area or promote preservation of open space, flood plain or sensitive lands either directly or over the long term.
2. Water-dependent uses should be given highest priority. Water-oriented uses should be given priority over non-water-oriented uses.
3. Create development standards for setbacks, buffers, shoreline stabilization, vegetation conservation and enhancement, critical areas protection, and water quality to assure no net loss of shoreline ecological functions, and contribute to the restoration of ecological functions over time in areas where ecological degradation has occurred.
4. Activities and uses that would substantially degrade or permanently deplete the physical or biological resources of the area should be prohibited.
5. Uses that result in restoration of ecological functions should be allowed if the use is otherwise compatible with the environment and the setting. New development should be restricted to that which is compatible with the natural and biological limitations of the land and water and will not require extensive alteration of the land/water interface.

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6. Activities or uses that would strip the shoreline of vegetative cover, cause or contribute to substantial erosion or sedimentation, or adversely effect aquatic life should be prohibited.
7. Boardwalks and other similar improvements intended to promote public use of waterfront areas and water dependent or water related recreational activities that are compatible with the urban conservancy environment should be encouraged on publicly owned property.
8. Public access and public recreation objectives should be implemented whenever feasible and significant ecological impacts can be mitigated.
9. Development that would be a hazard to public health and safety should not be allowed.
10. Public access opportunities to publicly owned shorelines and/or water bodies should be encouraged without having at any time to trespass upon private upland or tideland properties.
11. Commercial development ~~should not be allowed.~~shall ~~be limited to~~support water-related and water-enjoyment ~~commercial development~~uses. Kayak rentals, cafes and concession stands are examples of water-related and water-enjoyment commercial development.
12. Residential development ~~should~~ shall not be allowed.
13. Access, utilities and public services should be available and adequate to serve existing needs and allowed planned future development.
14. In areas with poorly draining soils, developments should not be allowed unless connected to a sewer line.
15. Shoreline developments that have a risk of adversely disrupting the shoreline or beach profile or contributing to the accumulation of water-borne drift should be discouraged.
16. Adequate surface water controls that will effectively reduce pollutants from surface water runoff should be encouraged.

Commented [JW1]: "Should" to "shall" is more consistent with the existing SMP 6.3.4(1) that states that commercial development is prohibited.

Commented [JW2]: Associated with the 11/8/18 Council Environment Committee approved regulatory change.

Commented [JW3]: "Should" to "shall" is more consistent with the existing SMP 6.3.8(1) that states that residential development is prohibited.

5.2.3 Designation Criteria

Areas designated as "urban conservancy" should be those areas that are generally not suited for high-intensity water-dependant uses, that that lie in incorporated municipalities or urban growth areas, and that meet any of the following characteristics:

1. They are suitable for a mix of water-related or water-dependant uses, with other uses that allow a substantial number of people to enjoy the shoreline;
2. They are open space, flood plain or other sensitive areas that should not be more intensively developed;
3. They have potential for ecological restoration;
4. They retain important ecological functions, even though partially developed; or
5. They have the potential for development that is compatible with ecological restoration.

5.2.4 Boundary Description

The limits of shoreline jurisdiction within Des Moines Beach Park and Saltwater State Park as shown on Figure 5-1, representing the official Des Moines SMP map.

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5.3 Shoreline Residential Environment

5.3.1 Purpose

The purpose of the "shoreline residential" environment is to accommodate residential development and associated structures that are consistent with the SMA and the protection and restoration of ecological functions.

5.3.2 Management Policies

1. Densities or minimum frontage width standards in the "Shoreline Residential" environment should be set to protect shoreline ecological functions, taking into account the environmental limitations and sensitivity of the shoreline area, the level of infrastructure and services available, and other comprehensive planning considerations.
2. Create development standards for setbacks, buffers, shoreline stabilization, vegetation conservation and enhancement, critical areas protection, and water quality to assure no net loss of shoreline ecological functions, and contribute to the restoration of ecological functions over time in areas where ecological degradation has occurred.
3. Multifamily and multi-lot residential and recreational developments should provide public access and joint use for community recreational facilities.
4. Access, utilities, and public services should be available and adequate to serve existing needs and/or planned future development.
5. Construction of structural shoreline stabilization should be allowed, provided it is designed so it will not result in eventual damage to neighboring properties or ecological functions. New developments should be designed to preclude the need for such works and should be compatible with shoreline characteristics and limitations.

5.3.3 Designation Criteria

The "Shoreline Residential" environment designation is appropriate for those areas of the City's shoreline that are predominantly single-family or multifamily residential development or are planned and platted for residential development.

5.3.4 Boundary Description

1. The limits of shoreline jurisdiction from the south bank of Massey Creek to the northern limits of Saltwater State Park as shown on Figure 5-1, representing the official Des Moines SMP map. This area generally coincides with the Zenith neighborhood.
2. The limits of shoreline jurisdiction from the southern limits of Saltwater State Park to South 282nd Street as shown on Figure 5-1, representing the official Des Moines SMP map. This area generally coincides with the Woodmont neighborhood.
3. The limits of shoreline jurisdiction from South 283rd Street to the southern city limits as shown on Figure 5-1, representing the official Des Moines SMP map. This area generally coincides with the Redondo neighborhood.

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5.4 Aquatic Environment

5.4.1 Purpose

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.

5.4.2 Management Policies

1. Allow new or expansion of existing overwater structures for water dependent, public access, transportation, or ecological restoration only and only when abutting or associated with upland areas designated High Intensity.
2. The size of new over-water structures should be limited to the minimum necessary to support the structure's intended use.
3. Shoreline uses and modifications should be designed and managed to prevent degradation of water quality and alteration of natural hydrographic conditions.
4. In order to reduce the impacts of shoreline development and increase effective use of water resources, multiple uses of over-water facilities should be encouraged.
5. All developments and uses on navigable waters or their beds should be located and designed to minimize interference with surface navigation, to consider impacts to public views, and to allow for the safe, unobstructed passage of fish and wildlife, particularly those species dependent on migration.
6. Uses that adversely impact the ecological functions of critical saltwater and freshwater habitats should not be allowed except where necessary to achieve the objectives of RCW 90.58.020, and then only when their impacts are mitigated according to the sequence described in WAC 173-26-201 (2)(e) as necessary to assure no net loss of ecological functions.

5.4.3 Designation Criteria

The "aquatic" environment designation is appropriate for all lands waterward of the marine ordinary high-water mark in the City of Des Moines, with the exception of areas inside the Des Moines Marina breakwater and areas associated with the Redondo High-Intensity waterfront.

5.4.4 Boundary Description

All intertidal or subtidal lands within the City of Des Moines city limits, waterward of the ordinary high-water mark, with the exception of areas inside the Des Moines Marina breakwater and areas associated with the Redondo High-Intensity waterfront as shown on Figure 5-1, representing the official Des Moines SMP map.

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CHAPTER 6 – DEVELOPMENT STANDARDS AND USE REGULATIONS

Shoreline uses and activities are specific common uses and types of development that typically locate in the shoreline area. Use regulations are implementation tools intended to carry out the policies of this SMP and the SMA. They represent the major criteria to be used in evaluating proposed developments and alterations to the shoreline environment with their ultimate influence, to a large extent, dependent on how well they are enforced.

The following general development standards and use regulations represent the criteria upon which evaluations of and approvals for proposed shoreline developments shall be based. Use regulations are to be used in conjunction with the policies for SMP elements and the applicable environmental designation.

Shoreline uses and activities not specifically identified, and for which policies and specific regulations have not been developed, shall be evaluated on a case-by-case basis and are required to: (1) meet the intent of the goals and objectives of this SMP; (2) comply with the SMA of 1971 as amended; (3) be consistent with management policies and character of the shoreline environment in which they propose to locate; and (4) secure a Shoreline Conditional Use Permit.

Table 6-1 lists SMP permitted uses and Table 6-2 lists SMP shoreline modifications within each shoreline environment designation. In the case that inconsistencies exist between the tables and the general management policies included within ~~Chapters~~ chapters 3 and 5, the regulations in this chapter shall govern.

Any shoreline planning areas within the City that have not been mapped and designated within Figure 5-1 shall be designated Urban Conservancy and will be managed and regulated under the identified goals, policies, and regulations of the Urban Conservancy designation.

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The following tables indicate the allowable uses and shoreline modifications, where there is a conflict between the chart and the written provisions in ~~Chapters~~ chapters 4, 5, or 6 of this master program, the written provisions shall apply. The tables are coded according to the following legend:

P = May be permitted
C = May be permitted as a conditional use only
X = Prohibited; the use is not eligible for a variance or conditional use permit

Table 6-1 Shoreline Master Program Permitted Use Table

SHORELINE USE	High-Intensity	Urban Conservancy	Shoreline Residential	Aquatic
Agriculture	X	X	X	X
Commercial Aquaculture	X	X	X	X
Boating F~~f~~acilities				
Public M~~m~~arinas and ~~launch~~ Launch R~~r~~amps	P	X	X	P*[1]
Private ~~m~~Marinas and ~~l~~Launch ~~r~~Ramps	C	X	X	P*[1]
Commercial:				
Water-dependent	P	X	X	C*[1]
Water-related~~,~~ and/or W~~w~~ater-enjoyment	P	~~X~~P	X	X
Non-water-oriented	C	X	X	X
Parking (accessory)	P	P	P	X
Parking (primary, including paid)	X	X	X	X
Recreation:				
Water-dependent	P	P	P	P
Water-enjoyment	P	P	P	P
Non-water-oriented	C	X	P	X
Single-F~~f~~amily R~~r~~esidential	X	X	P	X
Multifamily R~~r~~esidential	X	X	P	X
Outdoor Advertising and Signs	P	X	X	X
Solid Waste Disposal	X	X	X	X
Transportation	P	P	P	C
Underwater/Dive Parks	X	X	X	P
Utilities (primary)~~2~~	P	P	P	C

Commented [JW1]: As interpreted by Ecology.

Commented [JW2]: Associated with the 11/8/18 Council Environment Committee approved regulatory change.

Commented [JW3]: Associated with the 11/8/18 Council Environment Committee approved regulatory change.

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Table 6-2 Shoreline Master Program Shoreline Modifications Table

SHORELINE MODIFICATIONS	High-Intensity	Urban Conservancy	Shoreline Residential	Aquatic
Shoreline S~~s~~tabilization~~*~~[1]:				
Beach R~~r~~estoration/E~~e~~nhancement[2]	P	P	P	P
Bioengineering[2]	P	P	P	C
Revetments	P	C	C	C
Bulkheads[2]	P	P	P	X
Jetties and Groins	X	X	X	X
Breakwater	C	X	X	X
Upland Slope/Bluff Stabilization[2]	P	P	P	X
Dredging[3]	C	C	C	C
Hazardous waste cleanup[2]	P	P	P	P
Fill[4]	~~C~~P	~~C~~P	~~C~~P	C[5]
Piers and Docks	C	X	X	C~~*~~[1]
Land Clearing and Grading	P	P	P	X
Instream Structures	C	C	C	C
Paths, Walkways, Stairs, and Trails for Shoreline Access[2]	P	P	P	X
Park Improvements (e.g. Trails, Benches, Art, Restrooms)[2]	P	P	P	X

[1] The use or shoreline modification may be allowed in the Aquatic Environment if, and only if, permitted in the adjacent upland environment.

[2] Subject to the limitations of Section 7.5.10, no Shoreline Variance Permit shall be required.

[3] Neither a Conditional Use Permit nor a Shoreline Variance Permit is required for maintenance dredging restricted to previously legally established and authorized locations, depths, and widths.

[4] Fill may be allowed only when associated with a permitted use. Fill required specifically for the protection of archaeological or cultural resources shall be permitted through a Shoreline Substantial Development Permit and no Conditional Use Permit or Shoreline Variance Permit shall be required.

[5] A Conditional Use Permit is not required for fill associated with shoreline restoration, beach nourishment, or any use or modification specifically listed in Tables 6-1 and 6-2 as permitted (P) within the Aquatic Environment, except that any use or development that significantly impairs or alters the public's use of the water areas of the state shall require a Conditional Use Permit (WAC 173-26-241(2)(b)(ii)(A).

~~** The use or shoreline modification may be allowed in the Aquatic Environment if, and only if, permitted in the adjacent upland environment.*~~

Commented [JW4]: Associated with the 11/8/18 Council Environment Committee approved regulatory change.

Commented [JW5]: Associated with the 11/8/18 Council Environment Committee approved regulatory change. Consistent with the land, clearing, and grading requirements.

Commented [JW6]: Associated with the 11/8/18 Council Environment Committee approved regulatory change.

Commented [JW7]: Associated with the 11/8/18 Council Environment Committee approved regulatory change.

Commented [JW8]: This note hasn't changed.

Commented [JW9]: Associated with the 11/8/18 Council Environment Committee approved regulatory change.

Commented [JW10]: Associated with the 11/8/18 Council Environment Committee approved regulatory change.

Commented [JW11]: This existing language within the SMP comes from WAC 173-26-231 and WAC 173-26-241(2)(b)(ii)(A), and was pointed out by Ecology. Associated with the 11/8/18 Council Environment Committee approved regulatory change.

Commented [JW12]: Moved to the top as note #1.

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6.1 General Shoreline Development and Performance Standards

The following general development and performance standards apply to all uses and activities in all shoreline environments.

6.1.1 Building height, marine buffers, and building setbacks.

SECTION REORGANIZATION ASSOCIATED WITH CLARIFICATION OF EXISTING DEVELOPMENT STANDARDS AND AN ADDED ALLOWANCE TO REDUCE YARD REQUIREMENTS WHEN BENEFICIAL TO THE ENVIRONMENT.

1. In all shoreline environments, development~~ must~~ shall comply with applicable buffers and setbacks established by this chapter of the SMP;

2. ~~Pursuant to Section 6.1.3 of this Chapter, buffers for designated critical areas physically located in shoreline jurisdiction shall apply to uses and development located in shoreline jurisdiction.~~ A minimum buffer of 115 feet from the marine ordinary high water mark (OHWM) shall be maintained in designated Urban Conservancy and Shoreline Residential environments. Alterations shall be prohibited in the buffer except as provided for in this Program.

3. A minimum building setback of 10 feet from the landward edge of buffer ~~must~~shall be maintained in all shoreline environments.

4. For the construction of a single-family dwelling the City Manager or the City Manager's designee may allow a reduction to the DMMC required front, rear, or side yard on the opposite side of the OHWM~~. The reductions must meet~~ subject to the following standards:

   a. The marine buffer and required yard area opposite the OHWM ~~equals more~~is equal to or greater than 50 percent of the property dimension of the development site.

   b. A required side yard is reduced to five feet.

   ~~a.~~c. A required front or rear yard is reduced to 10 feet.

~~2. A minimum building setback of 10 feet from the landward edge of buffer must be maintained in all shoreline environments.~~

~~3.~~5. The maximum building height in all shoreline environments for all uses shall not exceed the height requirement of the underlying zone; except that ~~is~~ in no case shall building height exceed 35 feet above average grade level on the property.

6. Where Redondo Beach Drive South exists between Southwest 291st Street and South 280th Street, the isolated part of the buffer does not provide effective biological, geological, or hydrological buffer functions relating to the nearshore environment and the buffer is considered reduced to the waterward-most edge of the aforementioned street. Proposed actions in the isolated portion of the buffer on the landward side of the street may be permitted.

7. Pursuant to Section 6.4 of this chapter, buffers for designated critical areas physically located in shoreline jurisdiction shall apply to uses and development located in shoreline jurisdiction.

Commented [JW13]: The marine buffer is not an environmentally critical area and it is not directly tied to critical areas regulations. Divided this subsection into two.

Commented [JW14]: Taken from original 6.1.4(2).

Commented [JW15]: Existing language.

Commented [JW16]: Associated with the 11/8/18 Council Environment Committee approved regulatory change. This language comes from similar language in the DMMC wetland and stream code (DMMC 16.10.130).

Commented [JW17]: Moved up in this subsection.

Commented [JW18]: Copied this subsection from 6.1.4(3). Specifying that Redondo Beach Dr. S. interrupts and reduces the buffer, as currently interpreted by the City and Ecology. This is the only instance in Des Moines that the buffer is actually reduced. Reductions to the buffer is appropriate for this subsection that discusses the marine buffer.

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~~4.~~8. ~~Adjustment~~ Subject to the exceptions listed in this Program, adjustment of buffers or setbacks may be allowed ~~pursuant to Sections 6.1.4(3) and 6.1. 4(4) of this Chapter~~ upon obtaining a Shoreline V~~v~~ariance P~~p~~ermit that can provide relief from the dimensional requirements of this P~~p~~rogram. A Shoreline V~~v~~ariance Permit may only be granted when all of the criteria listed ~~at WAC 173-27-170~~in Subsection 7.5.2 are met. A variance is intended to allow only a minimum degree of variation from setback or other standards, just enough to afford relief and to allow a reasonable use of a property. Based upon the shoreline inventory and characterization, minimum necessary standards ~~must~~ shall ~~assure~~ ensure no net loss of shoreline ecological functions.

Commented [JW19]: Editing this section because 1) the City does not require variances when adjusting the marine buffer pursuant to the original Section 6.1.4(3) and 2) current Section 6.1.4(4) already states the variance requirement.

6.1.2 Vegetation Conservation

1. Land within ~~shoreline~~ the marine and critical area buffer areas ~~extending from marine ordinary high water mark,~~ as described in ~~Section~~ sections 6.1~~.1(2),~~ and 6.4 shall be considered vegetation conservation areas. Native shoreline vegetation that has not been otherwise disturbed by legal means shall be preserved to the maximum extent feasible within the vegetation conservation area consistent with safe construction practices, and other provisions of this chapter. Native trees and shrubs shall be preserved to maintain and provide shoreline ecological functions such as habitat, shade, and slope stabilization.
2. The following minimum standards for shoreline and critical area vegetation conservation shall apply:
   a. In the event buffers for more than one designated critical area per Section 6.4~~DMMC 18.86~~ are applicable, the most protective standards for vegetation conservation shall apply;
   b. No more than 15 percent of the area with native shoreline vegetation shall be cleared within the vegetation conservation area;
   c. All native trees in the vegetation conservation area over 20 inches in diameter at breast height shall be retained. Trees determined by the City to be hazardous or diseased may be removed. Replacement of non-native vegetation with native species shall be done in a manner that will not leave soil bare or vulnerable to erosion.
   d. The Shoreline Administrator may allow removal of vegetation exceeding that described above where an applicant agrees to replacement plantings that are demonstrated to provide greater benefit to shoreline ecological functions than would be provided by strict application of this section, based upon the findings from the 2005 Shoreline Inventory and Characterization.

Commented [JW20]: New SMP section containing the critical area regulations.

6.1.3 Environmental Impact Mitigation

1. All shoreline development and uses shall occur in a manner that results in no net loss of shoreline ecological functions, through the location and design of all allowed development and uses. In cases where impacts to shoreline ecological functions from allowed development and uses are unavoidable, those impacts shall be mitigated, according to the provisions of this section, to ensure no net loss of shoreline ecological functions.
2. To the extent Washington's State Environmental Policy Act of 1971 (SEPA), Chapter 43.21C RCW, is applicable, the analysis of environmental impacts from proposed shoreline uses or

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developments shall be conducted consistent with the rules implementing SEPA (~~DMMC~~ chapter 16.~~04~~ 05 DMMC and WAC 197-11).

3. Where required, mitigation measures shall be applied in the following sequence of steps listed in order of 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.
4. 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.
5. Required mitigation shall not be in excess of that necessary to ~~assure~~ ensure that proposed uses or development will result in no net loss of shoreline ecological functions.
6. Mitigation actions shall not have a significant adverse impact on other shoreline functions fostered by the policies of the Shoreline Management Act.
7. When compensatory measures are appropriate pursuant to the priority of mitigation sequencing above, preferential consideration shall be given to measures that replace the impacted functions directly and in the immediate vicinity of the impact. However, alternative compensatory mitigation within the watershed that addresses limiting factors or identified critical needs for shoreline resource conservation based on watershed or comprehensive resource management plans applicable to the area of impact may be authorized. Authorization of compensatory mitigation measures may require appropriate safeguards, terms or conditions as necessary to ensure no net loss of ecological functions.

~~7.~~8. Credits from a certified mitigation bank may be used to compensate for unavoidable impacts.

Commented [JW21]: Ecology checklist 2009 (b)

~~**6.1.4 Critical Areas Development and Performance Standards**~~

Commented [JW22]: New SMP Section 6.4 will now contain the critical area regulations.

ENVIRONMENTALLY CRITICAL AREA REGULATIONS HAVE BEEN INCORPORATED INTO A NEW SECTION, SECTION 6.4. MOST OF THIS SECTION HAS BEEN MOVED THERE OR TO OTHER APPROPRIATE SECTIONS.

~~1. Subject to the exceptions listed below in this section of the SMP, the provisions of the Des Moines Critical Areas Regulations (DMMC 18.86, dated March 8, 2007, Ordinance No. 1400) shall apply to any use, alteration, or development where designated critical areas are physically located within the shoreline jurisdiction, in addition to a shoreline permit or~~

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~~written statement of exemption. Designated critical areas (per the DMMC for Critical Areas, DMMC 18.86) located in the shoreline include streams and wetlands, geologically hazardous areas (which include; erosion, landslide, and seismic hazard areas), ravine sidewalls and bluffs, fish and wildlife conservation areas, areas of special flood hazard, and aquifer recharge areas.~~

~~2. A minimum buffer of one hundred fifteen (115) feet from the marine ordinary high water mark (OHWM), or the stream OHWM when said stream is located within shoreline jurisdiction, shall be maintained in designated Urban Conservancy and Shoreline Residential environments. Alterations shall be prohibited in the buffer except as provided for in this Program. In the event buffers for more than one designated critical area per DMMC 18.86 are applicable, all buffers shall apply.~~

~~3. Where a legally established and constructed use or structure exists that interrupts the buffer (e.g., a road or structure that lies within the width of buffer from marine ordinary high water mark), and the isolated part of the buffer does not provide effective biological, geological, or hydrological buffer functions relating to the nearshore environment, then proposed actions in the isolated portion of the buffer may be permitted as long as they do not increase the degree of nonconformity, subject to the following conditions:~~

~~a. Proposed actions shall not result in a net loss of shoreline ecological functions.~~

~~b. In no cases shall development encroach further waterward from the waterward most point of the legally established, nonconforming use or structure.~~

~~c. In no cases shall new development be allowed within thirty (30) feet of the marine ordinary high water mark.~~

~~4. In the event an applicant wishes to adjust standards and provisions for designated critical areas per the Reasonable Use Exception provisions of DMMC 18.86, such application shall be processed as a Shoreline Variance Permit, per the provisions of the SMP and WAC 173-27.~~

~~5. In the event development or performance standards in the Critical Areas Regulations (DMMC 18.86) are inconsistent with standards and requirements in the SMP, the SMP shall govern.~~

~~6.1.5~~6.1.4 Water Quality, Stormwater, and Nonpoint Pollution

1. Shoreline development and use shall incorporate measures to protect and maintain surface and ground water quantity and quality in accordance with all applicable laws.
2. Shoreline development shall be designed in conformance with the City's Surface Water Management Program.
3. All materials that may come in contact with water shall be composed of non-toxic materials, such as untreated wood, concrete, approved plastic composites or steel, that will not adversely affect water quality or aquatic plants or animals. Materials used for decking or other structural components shall be approved by applicable state agencies for contact with water to avoid discharge of pollutants from wave splash, rain, or runoff. Wood treated with creosote, copper chromium arsenic or pentachlorophenol is prohibited in shoreline water bodies.

Commented [JW23]: Moved to new section 6.4.

Commented [JW24]: See SMP 6.1.1 and 6.4.

Commented [JW25]: Divided up and moved to 6.1.1 and the nonconforming section as advised by Ecology.

Commented [JW26]: Moving to new section SMP 6.4.

Commented [JW27]: The critical area code is being incorporated into the SMP (Section 6.4).

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4. Within the City's shoreline jurisdiction, solid and liquid wastes and untreated effluents shall not be allowed to enter any groundwater or surface water or to be discharged onto shorelands. The release of oil, chemicals or hazardous materials onto shorelands or into the water is prohibited.
5. The City shall determine if surface water pollution has occurred or is occurring within the shoreline jurisdiction by:
   a. Utilizing the federal Environmental Protection Agency quality criteria for freshwater bodies and the state Department of Ecology water quality standards for surface waters of the state listed in chapter 173-201A WAC; or
   b. Requesting investigations by other agencies having regulatory authority regarding surface water pollution.
   c. The City reserves the right to pursue other appropriate civil actions under state and federal law, including a citizen suit under the federal Clean Water Act. [Ord. 1400 § 46, 2007.]
   ~~c.~~d. Referring to chapter 11.20 DMMC – National Pollution Discharge Elimination System Program (NPDES).
6. When the City or the investigating agency determines surface water quality pollution has occurred within shoreline jurisdiction, notice shall be provided to the alleged source of pollutants identifying the specific surface water quality problem and requesting that the problem be remedied. The City may pursue city (DMMC 11.20.090), state and/or federal enforcement actions when any surface water pollution is verified. [Ord. 1400 § 44, 2007.]

Commented [JW28]: Requested addition by the Surface Water Management and ESC divisions.

Commented [JW29]: Requested addition by the Surface Water Management and ESC divisions.

~~6.1.6~~6.1.5 Archaeological, Historic, and Cultural Resources

1. If any archeological artifacts are uncovered during excavations in the shoreline, work ~~must~~ shall stop and the City of Des Moines, affected Indian Tribes, and the State Department of Archeology and Historic Preservation ~~must~~ shall be notified.
2. Permits issued in areas known or highly suspected to contain archeological artifacts and data shall have provisions providing for a site inspection and evaluation by an archeologist in coordination with affected Indian Tribes prior to initiation of disturbance and for monitoring of potentially disruptive activities. Cost for inspection and evaluation of the site will be the responsibility of the applicant. Significant archeological data or artifacts shall be recovered before work begins or resumes on a project.

~~6.1.7~~6.1.6 Public Access

1. Public access shall be incorporated into all development proposals on public lands, all public and private commercial and industrial uses/developments, and all residential subdivisions of greater than four (4) lots when the following conditions exist:
   a. The development would generate demand for one or more forms of public shoreline access; and/or
   b. The development would eliminate, restrict, or otherwise impair existing legal access opportunities or rights.

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2. Public access shall not be required in areas where the applicant demonstrates that one or more of the following provisions apply:
   a. Unavoidable health or safety hazards to the public exist that cannot be prevented by any practical means;
   b. Inherent security requirements of the use cannot be satisfied through the application of alternative design features or other solutions;
   c. The cost of providing the access, easement, alternative amenity, or mitigating the impacts of public access is unreasonably disproportionate to the total long term cost of the proposed development;
   d. Significant environmental impacts would result from the public access that cannot be mitigated; and/or
   e. Significant undue and unavoidable conflict between any access provisions and the proposed use and/or adjacent uses would occur and cannot be mitigated.
3. Public access shall consist of a dedication of land or a physical improvement in the form of a walkway, trail, bikeway, corridor, viewpoint, park, or other area serving as a means of view and/or physical approach to shorelines of the state and may include interpretive centers and displays.
4. Public access locations shall be clearly marked with visible signage.
5. Public access provided by shoreline street ends, public utilities, and rights-of-way shall not be diminished (RCW 36.87.130).
6. Requirements or conditions for public access shall be consistent with all relevant constitutional and other legal limitations on regulation of private property.

6.2 Shoreline Modifications

Shoreline modifications are generally related to construction of a physical element such as a dike, breakwater, dredged basin, or fill, but they can include other actions such as clearing, grading, application of chemicals, or significant vegetation removal. Shoreline modifications usually are undertaken in support of or in preparation for shoreline use. Given that protecting ecological functions is a primary goal of the Shoreline Management Act, the City should take active measures to ensure that shoreline modifications individually and cumulatively do not result in a net loss of ecological functions. This includes reducing the adverse effects of shoreline modifications and, as much as possible, limiting shoreline modifications in number and extent. Shoreline modifications should be limited to those modifications appropriate to the specific type of shoreline and environmental conditions for which they are proposed.

If shoreline modification is approved, all feasible measures to protect shoreline ecological functions and processes should be incorporated. The City should plan for the enhancement of impaired ecological functions wherever feasible and appropriate while accommodating permitted uses.

6.2.1 Bulkheads and Shoreline Stabilization

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Bulkheads, riprap, seawalls, or other shoreline stabilization structures are erected parallel to and near the ordinary high water mark for the purpose of protecting adjacent upland structures from the erosive action of waves or currents. While shoreline stabilization structures may protect the uplands, they do not protect the adjacent beaches, and in many cases are actually detrimental to the beaches by speeding up the erosion of the sand in front of the structures. Hard shore armoring refers to traditional designs for shoreline stabilization, including constructed steel, timber, rock, concrete, or boulder riprap.~~-~~ Soft shore armoring refers to alternative bank protection methods such as bioengineering or biotechnical bank stabilization, which may include use of anchored drift logs, vegetation plantings, and import of beach sediment and/or gravel (also referred to as beach nourishment).

The Shoreline Administrator may approve bulkheads or other shoreline stabilization proposals when he/she determines that naturally occurring movement of the shoreline threatens existing structures, public improvements, unique natural resources, or the only feasible access to property and that the proposed stabilization complies with the criteria and standards in this section.

1. New development will be located and designed to avoid the need for future shoreline stabilization to the extent feasible. New development that would require shoreline stabilization which causes significant impacts to adjacent or down-current properties and shoreline areas shall not be allowed. Subdivision of land ~~must~~ shall be regulated to ~~assure~~ ensure that the lots created will not require shoreline stabilization in order for reasonable development to occur. 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.
2. New hard shore armoring stabilization measures shall not be allowed except when necessity is demonstrated in the following manner:
   a. To protect existing primary structures: New or enlarged structural shoreline stabilization measures for an existing primary structure, including residences, should not be allowed unless there is conclusive evidence, documented by a geotechnical analysis, that the structure is in danger from shoreline erosion caused by tidal action, currents, or waves. Normal sloughing, erosion of steep bluffs, or shoreline erosion itself, without a scientific or geotechnical analysis, is not demonstration of need. The geotechnical analysis should evaluate on-site drainage issues and address drainage problems away from the shoreline edge before considering hard shore armoring techniques for shoreline stabilization.
   b. In support of new nonwater-dependent development, including single-family residences, when all of the conditions below apply:
      i. The erosion is not being caused by upland conditions, such as the loss of vegetation and drainage.
      ii. Nonstructural measures, such as placing the development further from the shoreline, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient.
      iii. The need to protect primary structures from damage due to erosion is demonstrated through a geotechnical report. The damage must be caused by natural processes, such as tidal action, currents, and waves.

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c. In support of water-dependent development when all of the conditions below apply:
   i. The erosion is not being caused by upland conditions, such as the loss of vegetation and drainage.
   ii. Nonstructural measures, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient.
   iii. The need to protect primary structures from damage due to erosion is demonstrated through a geotechnical report.

d. To protect projects for the restoration of ecological functions or hazardous substance remediation projects pursuant to chapter 70.105D RCW when nonstructural measures, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient.

3. An existing shoreline stabilization structure may be replaced with a similar structure if there is a demonstrated need to protect principal uses or structures from erosion caused by currents, tidal action, or waves. Approved replacement structures are subject to the following provisions:

   a. The replacement structure shall be designed, located, sized, and constructed to ~~assure~~ ensure no net loss of ecological functions.
   b. Replacement walls or bulkheads shall not encroach waterward of the ordinary high-water mark or existing structure unless the residence was occupied prior to January 1, 1992, and there are overriding safety or environmental concerns. In such cases, the replacement structure shall abut the existing shoreline stabilization structure.
   c. Where a net loss of ecological functions associated with critical saltwater habitats would occur by leaving the existing structure, remove it as part of the replacement measure.
   d. Soft shore stabilization measures that provide restoration of shoreline ecological functions may be permitted waterward of the ordinary high-water mark.
   e. For purposes of this section, standards on shoreline stabilization measures, "replacement" means the construction of a new structure to perform a shoreline stabilization function of an existing structure which can no longer adequately serve its purpose. Additions to or increases in size of existing shoreline stabilization measures shall be considered new structures.

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

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5. When any shoreline stabilization measures are demonstrated to be necessary, pursuant to above provisions, the City's 2005 Shoreline Inventory and Characterization shall be used to assist in the implementation of the following additional standards:
   a. Limit the size of stabilization measures to the minimum necessary. Use measures designed to ~~assure~~ ensure no net loss of shoreline ecological functions. Soft shore stabilization approaches that absorb and dissipate wave energy shall be used unless demonstrated not to be sufficient to protect primary structures, dwellings, and businesses.
   b. Ensure that publicly financed or subsidized shoreline erosion control measures do not restrict appropriate public access to the shoreline except where such access is determined to be infeasible because of incompatible uses, safety, security, or harm to ecological functions. When feasible, incorporate ecological restoration and public access improvements to the project.
   c. Mitigate new erosion control measures, including replacement structures, on feeder bluffs or other actions that affect beach sediment-producing areas to avoid and, if that is not possible, to minimize adverse impacts to natural sediment transport processes.
   d. All new or replacement shoreline stabilization and flood protection measures shall be designed and constructed so that down-current banks will not be adversely affected. Shoreline stabilization measures, including riprap, shall be designed and constructed in a manner consistent with the Department of Fish and Wildlife, Corps of Engineers and/or other engineering and design specifications deemed appropriate by the Shoreline Administrator.
   e. Bulkheads shall be permitted only where they provide protection to upland areas or facilities, not for the indirect purpose of creating land by filling behind the bulkhead.
   f. Adequate toe protection shall be provided to ensure bulkhead stability.
   g. Bulkheads shall be designed to permit the passage of surface or ground water without causing ponding or saturation.
   h. To receive permit approval for bulkhead construction, the applicant shall agree to grant adjacent property owners the right to tie in adjacent bulkheads.
6. Shoreline vegetation shall be protected and restored along or near marine and freshwater shorelines to protect and restore the ecological functions and ecosystem-wide processes and to protect human safety and property.
7. Cut-and-fill slopes and backfill areas shall be revegetated with native grasses, shrubs and/or trees.
8. Shoreline protection activities that may necessitate new or increased shoreline protection on the same or other affected properties where there has been no previous need for protection is prohibited.
9. Shoreline modification may be allowed for environmental restoration or if the City determines that there will be a net increase in desired shoreline ecological functions.

6.2.2 Upland Slope Stabilization

Commented [JW30]: Ecology noted that nothing in the SMP currently allows for upland slope stabilization. Ecology recommended adding a new section similar to the shoreline stabilization section.

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THE CURRENT SMP DOES NOT ADEQUATELY ADDRESS UPLAND SLOPE STABILIZATION. ECOLOGY SUGGESTED CREATING THIS NEW SECTION FOR THE REGULATIONS SPECIFIC TO UPLAND SLOPE STABILIZATION.

Upland slope and bluff shoreline stabilization structures are erected for the purpose of protecting adjacent upland structures from erosion. While shoreline stabilization structures may protect the uplands, they do not protect the adjacent beaches, and in many cases are actually detrimental to the beaches by speeding up the erosion of the sand in front of the structures. Hard armoring refers to traditional designs for stabilization, including constructed steel, timber, rock, and concrete. Soft armoring refers to alternative slope protection methods such as bioengineering or biotechnical slope stabilization, which may include use vegetation plantings. Soft armoring is generally preferred over hard armoring methods.

The Shoreline Administrator may approve upland slope and bluff stabilization proposals when he/she determines that naturally occurring movement of the slope threatens existing structures, water-dependent development, public improvements, unique natural resources, or the only feasible access to property, and that the proposed stabilization complies with the criteria and standards in this section.

1. New development will be located and designed to avoid the need for future stabilization to the extent feasible. New development that would require stabilization which causes significant impacts to adjacent or down-current properties and shoreline areas shall not be allowed. Subdivision of land shall be regulated to ensure that the lots created will not require stabilization in order for reasonable development to occur. New development on steep slopes or bluffs shall be set back sufficiently to ensure that stabilization is unlikely to be necessary during the life of the structure, as demonstrated by a geotechnical analysis.
2. New hard armoring stabilization measures shall not be allowed except when necessity is demonstrated in the following manner:
   a. To protect existing primary structures: New or enlarged structural stabilization measures for an existing primary structure, including residences, should not be allowed unless there is conclusive evidence, documented by a geotechnical analysis, that the structure is in danger from erosion. Normal sloughing, erosion of steep bluffs, or shoreline erosion itself, without a scientific or geotechnical analysis, is not demonstration of need. The geotechnical analysis should evaluate on-site drainage issues and address drainage problems away from the shoreline edge before considering hard shore armoring techniques.
   b. In support of water-dependent development when all of the conditions below apply:
      i. The erosion is not being caused by loss of vegetation or drainage.
      ii. Nonstructural measures, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient.
      iii. The need to protect primary structures from damage due to erosion is demonstrated through a geotechnical report.
   c. To protect projects for the restoration of ecological functions or hazardous substance remediation projects pursuant to chapter 70.105D RCW when nonstructural measures,

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planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient.

3. An existing stabilization structure may be replaced with a similar structure if there is a demonstrated need to protect principal uses or structures from erosion caused by natural processes. Approved replacement structures are subject to the following provisions:
   a. The replacement structure shall be designed, located, sized, and constructed to ensure no net loss of ecological functions.
   b. Replacement walls or structures shall not encroach waterward of the existing structure unless the residence was occupied prior to January 1, 1992, and there are overriding safety or environmental concerns. In such cases, the replacement structure shall abut the existing stabilization structure.
   c. Where a net loss of ecological functions associated with critical saltwater habitats would occur by leaving the existing structure, remove it as part of the replacement measure.
   d. For purposes of this section, standards on shoreline stabilization measures, "replacement" means the construction of a new structure to perform a shoreline stabilization function of an existing structure which can no longer adequately serve its purpose. Additions to or increases in size of existing shoreline stabilization measures shall be considered new structures.
4. Geotechnical reports pursuant to this section that address the need to prevent potential damage to a primary structure shall address the necessity for stabilization by estimating time frames and rates of erosion and report on the urgency associated with the specific situation. As a general matter, hard armoring solutions should not be authorized except when a report confirms that there is a significant possibility that a primary structure will be damaged within three years as a result of erosion in the absence of such hard armoring measures, or where waiting until the need for armoring is so great that it would foreclose on the opportunity to utilize measures that avoid or minimize impacts to ecological functions. Where the geotechnical report confirms a need to prevent potential damage to a primary structure, but the need is not as immediate as the three years, that report may still be used to justify more immediate authorization to protect against erosion using soft stabilization measures.
5. When any stabilization measures are demonstrated to be necessary, pursuant to above provisions, the City's 2005 Shoreline Inventory and Characterization shall be used to assist in the implementation of the following additional standards:
   a. Limit the size of stabilization measures to the minimum necessary. Use measures designed to ensure no net loss of shoreline ecological functions. Soft stabilization approaches shall be used unless demonstrated not to be sufficient to protect primary structures, dwellings, and businesses.
   b. Ensure that publicly financed or subsidized erosion control measures do not restrict appropriate public access to the shoreline except where such access is determined to be infeasible because of incompatible uses, safety, security, or harm to ecological functions. When feasible, incorporate ecological restoration and public access improvements to the project.

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c. Mitigate new erosion control measures, including replacement structures, on feeder bluffs or other actions that affect beach sediment-producing areas to avoid and, if that is not possible, to minimize adverse impacts to natural sediment transport processes.

d. Stabilization measures shall be permitted only where they provide protection to upland areas or facilities, not for the indirect purpose of creating land by filling behind the structure.

e. Stabilization measures shall be designed to permit the passage of surface or ground water without causing ponding or saturation.

f. To receive permit approval for stabilization construction, the applicant shall agree to grant adjacent property owners the right to tie in adjacent stabilization structures.

6. Shoreline vegetation shall be protected and restored along or near marine and freshwater shorelines to protect and restore the ecological functions and ecosystem-wide processes and to protect human safety and property.

7. Cut-and-fill slopes and backfill areas shall be revegetated with native grasses, shrubs and/or trees.

~~1.~~ Shoreline protection activities that may necessitate new or increased protection on the same or other affected properties where there has been no previous need for protection is prohibited.

8. When a vertical or near vertical wall is being constructed or reconstructed, not more than one cubic yard of fill per one foot of wall may be used as backfill.

Commented [JW31]: Taken from SMP 7.2(3). This was important in the review of the Seymour soldier pile wall. Per Ecology's Shoreline Permitting Manual it is a requirement.

~~6.2.2~~6.2.3 Breakwaters

A boulder riprap breakwater is present at the Des Moines Marina and a floating breakwater is present at the Redondo boat launch.

1. Expansion of existing hard breakwaters shall be considered only in the High-Intensity shoreline environment and shall require a Shoreline Conditional Use Permit.
2. New floating breakwaters shall be considered only in the High-Intensity shoreline environment and shall require a Shoreline Conditional Use Permit.
3. New or expanded breakwaters shall be allowed only to support water-dependent uses, public access, shoreline stabilization or other specific public purposes consistent with the provisions of this SMP.
4. All new or expanded breakwaters shall be designed and constructed so that down-current banks will not be adversely affected. Breakwaters shall be designed and constructed in a manner consistent with the Department of Fish and Wildlife, Corps of Engineers and/or other engineering and design specifications deemed appropriate by the Shoreline Administrator.
5. If existing breakwaters need to be rebuilt, replacement breakwaters shall be designed to minimize adverse effects to critical areas and provide mitigation for unavoidable impacts per the provisions of this SMP for environmental impact mitigation (Section 6.1.3).

~~6.2.3~~6.2.4 Piers and Docks

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1. New piers and docks or expansion of existing piers and docks may be allowed in High-Intensity environments and Aquatic environments when associated with water-dependent uses and/or public access in areas designated High-Intensity, subject to a Shoreline Conditional Use Permit.
2. New piers and docks are prohibited in the Urban Conservancy and Shoreline Residential environments.
3. Repair, maintenance, rehabilitation, or replacement of existing piers and docks shall be allowed within the High-Intensity shoreline environment given adherence to the following standards:
   a. A permit to construct a pier or dock ~~must~~ shall be obtained from the Corps of Engineers.
   b. Pier and dock construction shall be restricted to the minimum size necessary to meet the needs of the proposed use.
   c. Replacement of piers, docks and other moorages shall only be authorized after demonstrating that:
      i. Piers and docks shall be designed and constructed to avoid, or if that is not possible, to minimize and mitigate the impacts to ecological functions, critical areas resources such as eelgrass beds and fish habitats and processes such as currents and littoral drift, in accordance with guidance provided by WAC 13-26-221(2)(c) (iii) and (iv). Impact minimization shall include the use of construction materials approved by applicable state agencies.
      ii. The effect such structures have on navigation, water circulation, recreational and commercial boating, sediment movement and littoral drift and shoreline access have been minimized or mitigated.
   d. Open pile pier construction shall be required where there is significant littoral drift, where scenic values will not be impaired and where minimal alteration to the shoreline and minimal damage to aquatic resource can be assured.
   e. Floating pier construction shall be required in those areas where scenic values are high.
   f. Piers or docks that are abandoned or structurally unsafe shall be abated.

~~6.2.4~~6.2.5 Jetties and Groins

1. Jetties and groins are prohibited in all shoreline environments.

~~6.2.5~~6.2.6 Dredging

1. ~~Dredging~~ New dredging activities, including disposal of dredge material, in any shoreline environment require a Conditional Use Permit and ~~must~~ shall comply with all federal and state regulations.
2. Dredging activities are allowed in the Shoreline Residential and Urban Conservancy shoreline environments only where necessary to protect public safety.
3. Dredging activities are allowed in the High-Intensity environment where necessary for navigation. Dredging for navigational purposes should be allowed where necessary for

Commented [JW32]: Associated with the 11/8/18 Council Environment Committee approved regulatory change.

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assuring safe and efficient accommodation of existing navigational uses and then only when significant ecological impacts are minimized and when mitigation is provided. ~~Maintenance dredging of established navigation channels and basins should be restricted to maintaining previously dredged and/or existing authorized location, depth, and width.~~

~~3.~~4. Dredging to restore pre-existing contours within a designated, legally established, and authorized navigation channel or basin is considered normal maintenance. A Conditional Use Permit is not required for maintenance dredging. Maintenance dredging shall be restricted to maintaining previously dredged and/or existing authorized location, depth, and width.

~~4.~~5. Dredging of bottom materials for the single purpose of obtaining fill material is prohibited.

~~5.~~6. Dredging and excavation in critical areas is prohibited.

~~6.~~7. Where allowed, dredging operations ~~must~~ shall be scheduled so as to not damage shoreline ecological functions or processes.

~~7.~~8. When dredge spoils have suitable organic and physical properties, dredging operators shall recycle dredged material into areas of the City suitable for those materials. Disposal of dredge material on shorelands shall be discouraged.

~~6.2.6~~6.2.7 Fill

AS RECOMMENDED BY ECOLOGY, THE FOLLOWING FILL REGULATIONS ARE SPLIT INTO 3 SUBSECTIONS AND ARE AMENDED TO BE CONSISTENT WITH THE LESSER STRICT STATE REGULATIONS, THE LAND, CLEARING, AND GRADING SECTION BELOW, AND OTHER LOCAL JURISDICTIONS.

1. Permitted fill activities ~~must~~shall comply with the following standards:
   a. Demonstration that alternatives to fill are not feasible;
   b. Demonstration that fill materials shall be of such quality that it will not adversely affect water quality;
   c. Demonstration that fill shall be deposited so as to minimize disruption of normal surface and ground water passage. Earth material which has no more than a minor amount of organic material and has no rock or similar irreducible material with a maximum dimension greater than eight inches shall be used;
   d. Demonstration that fill shall allow surface water penetration into the ground water supply, where such conditions exist prior to the fill; and
   ~~a.~~e. Demonstration that landfill timing will minimize damage to water quality and aquatic life.
   f. Demonstration that fill shall result in no net loss of ecological functions. Fills shall be located, designed, and constructed to protect shoreline ecological functions and ecosystem-wide processes, including channel migration within stream subestuaries.

2. Fill placed landward~~,~~ of the ordinary high water mark (OHWM) shall comply with the following standards:

Commented [JW33]: Maintenance dredging moved into new subsection below.

Commented [JW34]: Associated with the 11/8/18 Council Environment Committee approved regulatory change. This is a new maintenance dredging subsection that combines language from subsection above and language out of Ecology's Shoreline Permitting Manual.

Commented [JW35]: Ecology recommended splitting into subsections.

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a. Fill activities shall only be allowed in association with allowed (permitted) ~~water dependent use~~ developments. Subject to the exceptions of this SMP, a Shoreline Variance Permit shall be required for fill proposed in the marine buffer. ~~Fill associated with non-water dependent uses shall be prohibited.~~

b. Fill required specifically for the protection of archaeological or cultural resources shall be permitted through a Shoreline Substantial Development Permit and no Conditional Use Permit or Shoreline Variance Permit shall be required.

~~1. Fill needed to support the following water dependent uses may be allowed in all shoreline environments through a Shoreline Conditional Use Permit:~~

~~a. Public access;~~

~~b. Expansion, alteration, or repair of transportation facilities currently located with in the shoreline;~~

~~c. Mitigation actions;~~

~~d. Environmental, ecological, or watershed restoration projects;~~

~~e. Beach nourishment or enhancement projects; and~~

~~f. Soft shore bank stabilization projects.~~

~~2. Permitted fill activities must comply with the following standards:~~

~~a. Demonstration that alternatives to fill are not feasible;~~

~~b. Demonstration that fill materials shall be of such quality that it will not adversely affect water quality;~~

~~c. Demonstration that fill shall be deposited so as to minimize disruption of normal surface and ground water passage. Earth material which has no more than a minor amount of organic material and has no rock or similar irreducible material with a maximum dimension greater than eight inches shall be used;~~

~~d. Demonstration that fill shall allow surface water penetration into the ground water supply, where such conditions exist prior to the fill; and~~

~~e. Demonstration that landfill timing will minimize damage to water quality and aquatic life.~~

~~3. Fill, except for beach nourishment, shall be prohibited in areas of high shoreline erosion potential.~~

c. For allowed fill activities, the ground surface shall be prepared to receive fill by removing any unsuitable materials such as oversized rock, concrete slabs, tree stumps, brush, etc.

d. Fill activities shall be designed to blend physically and visually with existing topography whenever possible. Perimeter banks shall be sloped no steeper than 1 foot vertical for every 3 feet horizontal unless a specific engineering or geotechnical analysis has been provided and the Shoreline Administrator determines that the fill blends with existing topography.

~~d.~~e. When a vertical or near vertical wall is being constructed or reconstructed, not more than one cubic yard of fill per one foot of wall may be used as backfill.

Commented [JW36]: Associated with the 11/8/18 Council Environment Committee approved regulatory change.

Commented [JW37]: Clarification suggested by Ecology.

Commented [JW38]: Moved to waterward section below.

Commented [JW39]: Associated with the 11/8/18 Council Environment Committee approved regulatory change.

Commented [JW40]: Ecology says this is too strict. Not consistent with the land, clearing, and grading section. Why would we require a CUP for fill associated with permitted uses? Should only require CUP waterward of OHWM (WAC 173-26-231) in the Aquatic environment. Consistent with other jurisdictions.

Commented [JW41]: Moved to intro paragraph. Applies to all fill.

Commented [JW42]: Not required.

Commented [JW43]: Taken from SMP 7.2(3). This was important in the review of the Seymour soldier pile wall. Per Ecology's Shoreline Permitting Manual it is a requirement.

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4. ~~Fill located waterward of the ordinary high water mark, except for beach nourishment, shall be allowed only after full consideration is given to total water surface reduction, impediment to water flow and circulation, reduction of water quality and destruction of habitat.~~

~~e.~~f. Fill within the one hundred-year (100-year) flood plain requires demonstration that landfill will not reduce the flood plain water storage capacity or in any way increase flood hazard so as to endanger public safety.

~~f.~~g. An erosion and sediment control (ESC) plan shall be provided for all proposed fill activities.

h. ~~Fills shall be located, designed, and constructed to protect shoreline ecological functions and ecosystem-wide processes, including channel migration within stream subestuaries.~~

~~1.~~3.Fill located waterward of the OHWM shall comply with the following standards:

a. Fill activities associated with non-water dependent uses shall be prohibited.

b. Fill activities shall be allowed when necessary to support water-dependent uses, public access, cleanup and disposal of contaminated sediments as part of an interagency environmental clean-up plan, disposal of dredged material considered suitable under, and conducted in accordance with the dredged material management program of the department of natural resources, expansion or alteration of transportation facilities of statewide significance currently located on the shoreline and then only upon a demonstration that alternatives to fill are not feasible, mitigation actions, environmental restoration, and beach nourishment or enhancement projects.

c. Fill~~s~~ ~~waterward of the ordinary high water mark (OHWM)~~ for any use, except ecological restoration and any use or modification specifically listed in Tables 6-1 and 6-2 as permitted (P) within the Aquatic Environment,~~-~~ shall require a ~~c~~Conditional ~~u~~Use ~~p~~Permit~~.~~, except that any use or development that significantly impairs or alters the public's use of the water areas of the state shall require a Conditional Use Permit.

~~a.~~d. Except for beach nourishment, fill shall be allowed only after full consideration is given to total water surface reduction, impediment to water flow and circulation, reduction of water quality and destruction of habitat.

~~6.2.7~~6.2.8 Land Clearing and Grading

1. Land clearing and grading activities shall only be allowed in association with an allowed (permitted) shoreline development, subject to the Vegetation Conservation provisions of this SMP (Section 6.1.2).
2. Land clearing and grading activities shall adhere to the following provisions:
   a. Slope. No slope of cut or fill surfaces shall be steeper than 2:1 unless approved by the Shoreline Administrator;

Commented [JW44]: Moved below.

Commented [JW45]: Moved to first section, above.

Commented [JW46]: Moved from original 6.2.6(1)

Commented [JW47]: Language from WAC 173-26-231

Commented [JW48]: Already stated in the heading of this subsection.

Commented [JW49]: This existing language within the SMP comes from WAC 173-26-231. Changes are associated with the 11/8/18 Council Environment Committee approved regulatory change. This is repeated in Table 6-2.

Commented [JW50]: Language from WAC 173-26-241(2)(b)(ii) (A) and pointed out by Ecology.

Commented [JW51]: Moved from subsection above.

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b. Erosion/Sedimentation Control. All land clearing and grading shall be accomplished in a manner that minimizes erosion. All disturbed areas, including faces of cuts and fill slopes, shall be prepared and maintained to control erosion/sedimentation in accordance with the specifications of the surface water design manual. Prior to undertaking any land clearing or grading, the applicant shall submit for approval by the Shoreline Administrator, an erosion / sedimentation control (ESC) plan. The ESC plan shall set forth the specific measures from the surface water design manual to be utilized by the proposed project during (from beginning until the end) and following the construction. All land clearing and grading shall be consistent with the approved ESC plan;

c. Excavations to Water-producing Depth. All excavations ~~must~~ shall be made to a water-producing depth or grade to permit natural drainage. The excavations made to a water-producing depth shall be reclaimed in the following manner:

   i. Depth of the excavation must not be less than two feet measured below the low water mark.

   ii. All banks shall be sloped to the water line no steeper than 2:1.

   iii. In no event shall the term "water producing depth" be construed to allow stagnant or standing water to collect or remain in the excavations.

d. Bench Terrace. Benches at least 10 feet in width shall be back sloped and shall be established at no more than 10-foot vertical intervals to control surface drainage and debris. Swales or ditches on benches shall have a maximum gradient of one percent;

e. Drainage. Provisions shall be made to prevent surface water or seepage from damaging the cut face of excavations or the sloping face of a fill and to carry surface waters that are or might be concentrated as a result of a fill or excavation to a natural watercourse or other means as approved by the code official. All development activities shall make provisions for drainage pursuant to the requirements of the surface water design manual.

3. All land clearing and grading practices in shoreline areas shall be conducted ~~t~~so there is no net loss of shoreline ecological functions.

4. Tree brush and vine removal in steep slope and fragile areas shall be prohibited except as a measure to protect public safety. Nondestructive pruning for tree maintenance or view or aesthetic purposes is not affected by this regulation.

5. All cut fill and side cast slopes shall be planted or seeded with appropriate ground cover or otherwise treated to prevent erosion of the slope.

6. All ruts and erodible soil conditions caused by brush cutting or any land clearing and grading operations should prevent the invasion of water or planted with appropriate ground cover.

7. Whenever seeding, planting or other soil stabilizing measures are specified as part of a shoreline development proposal, it shall be performed as soon as practical.

~~6.2.8~~6.2.9 Instream Structures

Instream structures are those placed by humans within a stream or river channel waterward of the ordinary high water mark (OHWM) that either causes or has the potential to cause water impoundment or the diversion, obstruction, or modification of flow. This may include those for

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hydroelectric generation, irrigation, water supply, flood control, transportation, utility service transmission, fish habitat enhancement, or other purpose. Only those instream structures that are with the City's shoreline jurisdiction are regulated by the provisions of this Program.

1. Instream structures may be permitted in all shoreline environments as a conditional use.
2. In-stream structures shall provide for the protection and preservation, of ecosystem-wide processes, ecological functions, and cultural resources, including, but not limited to, fish and fish passage, wildlife and water resources, hydrogeological processes, and shoreline critical areas.
3. The location and planning of instream structures shall give due consideration to the full range of public interests, watershed functions and processes, and environmental concerns, with special emphasis on protecting and restoring priority habitats and species.
4. Instream structures shall be designed, located, and constructed in such a manner as to avoid extensive topographical alteration and preserve natural scenic vistas.
5. Instream structures that divert water shall return flow to the stream in as short a distance as possible.
6. All instream structures shall be designed to allow the natural transport of bedload materials.
7. Instream structures and their support facilities shall be designed to minimize removal of vegetation.

6.3 Shoreline Uses

Shoreline uses refers to specific common uses and types of development to the extent they occur within shoreline jurisdiction. While shoreline modifications refer to specific structures, actions, or alterations that generally support a specific use (e.g., dredging to accommodate a marina), shoreline uses are the primary use of land that is within shoreline jurisdiction (e.g., residential, recreation, commercial, etc.). All uses and development ~~must~~ shall be consistent with the provisions of the environment designation in which they are located (see Table 6-1) and the general regulations of this master program.

6.3.1 Prohibited Uses

The following uses are prohibited in all shoreline environments:

1. Agricultural activities;
2. Forest management practices;
3. Ports and related industry;
4. Mining;
5. Commercial aquaculture;
6. Solid waste disposal facilities; and
7. Billboards.

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6.3.2 Non-Conforming Uses and Developments

INCORPORATION OF THE CITY'S APPLICABLE NONCONFORMING REGULATIONS FROM CHAPTER 18.15 DMMC AND REORGANIZATION OF THE SECTION PURSUANT TO ECOLOGY'S STANDARDS.

~~1. Provisions contained in the following sections of the Des Moines Zoning Code for Nonconforming Buildings and Uses (DMMC 18.48) are hereby incorporated into this SMP as though fully set forth herein:~~

~~18.48.030. Effect of removal or destruction of nonconforming buildings (last revised 1999, Ordinance #1240);~~

~~18.48.040. Reconstruction of buildings partially destroyed or damaged (last revised 1999, Ordinance #1237); and~~

~~18.48.050. Structural alteration or enlargement of nonconforming buildings (last revised 1964, Ordinance #175).~~

~~2. All references to zones or zoning classifications in the aforementioned sections shall be construed as referring to shoreline environment designations established by this SMP. In addition to the provisions incorporated by reference, all other provisions in this section shall also apply~~.

1. Nonconforming Uses

"**Nonconforming use**" means an existing shoreline use that was lawfully established prior to the effective date of the ~~act~~SMA or the applicable master program, but which does not conform to present use regulations due to subsequent changes to the master program.

a. ~~3.~~ Uses ~~and developments~~ that were legally established and are nonconforming with regard to the use regulations of the master program may continue as legal nonconforming uses. Such uses shall not be enlarged or expanded, except that nonconforming single-family residences that are located landward of the ordinary high water mark may be enlarged or expanded in conformance with applicable bulk and dimensional standards by the addition of space to the main structure or by the addition of normal appurtenances as defined in WAC 173-27-040 (2)(g) upon approval of a Conditional Use Permit.

b. ~~4.~~ A use which is listed as a conditional use but which existed prior to adoption of the master program or any relevant amendment and for which a Shoreline Conditional Use Permit has not been obtained shall be considered a nonconforming use.

c. If a nonconforming use is discontinued for twelve consecutive months or for twelve months during any two-year period, the nonconforming rights shall expire and any subsequent use shall be conforming. Water-dependent uses should not be considered discontinued when they are inactive due to dormancy, or where the use includes phased or rotational operations as part of typical operations.

d. A structure which is being or has been used for a nonconforming use may be used for a different nonconforming use only upon the approval of a Conditional Use Permit. A use authorized through a Conditional Use Permit pursuant to this subsection shall be considered a conforming use for purposes of Section 6.3.2. A Conditional Use Permit may be approved only upon a finding that:

Commented [JW52]: Ecology wants the non-conforming section divided up into 3 sections. This is consistent with other SMPs. Incorporated language from DMMC 18.15.050 – 060, below. Some of DMMC 18.15.070 is addressed in new language provided by Ecology that is more applicable to shorelines. Note that the SMP does not regulate interior work so some of the DMMC language does not apply.

Commented [JW53]: Ecology wants the addition of the definition here.

Commented [JW54]: Moved up into this uses subsection.

Commented [JW55]: Taken from Ecology checklist guidance language 2017 (g).

Commented [JW56]: This sentence that was referencing this subsection from the original SMP 6.3.2(8) moved here.

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i. No reasonable alternative conforming use is practical; and

ii. The proposed use will be at least as consistent with the policies and provisions of the SMP and as compatible with the uses in the area as the preexisting use.

iii. In addition such conditions may be attached to the permit as are deemed necessary to ensure compliance with the above findings, the requirements of the master program and the SMA and to ensure that the use will not become a nuisance or a hazard.

2. Nonconforming Development and Structures

"**Nonconforming development**" or "**nonconforming structure**" means an existing structure that was lawfully constructed at the time it was built but is no longer fully consistent with present regulations such as setbacks, buffers or yards; area; bulk; height or density standards due to subsequent changes to the master program.

a. Developments that were legally established and are nonconforming with regard to the use regulations of the master program may continue as legal nonconforming developments.

b. Structures that were legally established and are used for a conforming use but are nonconforming with regard to setbacks, buffers or yards; area; bulk; height or density may continue as legal nonconforming structures and may be maintained and repaired.

c. Nonconforming structures that are used for a conforming use may be enlarged or expanded provided that said enlargement meets the applicable provisions of the SMP and underlying zone.

d. ~~5.~~ A structure for which a variance has been issued shall be considered a legal nonconforming structure and the requirements of this section shall apply as they apply to preexisting nonconformities.

~~a.~~c. If a building or structure becomes nonconforming solely because of governmental acquisition of a portion of the property for an essential public transportation facility, the building or structure shall be considered legal nonconforming.

~~b. 6. A structure which is being or has been used for a nonconforming use may be used for a different nonconforming use only upon the approval of a Conditional Use Permit. A Conditional Use Permit may be approved only upon a finding that:~~

~~a. No reasonable alternative conforming use is practical; and~~

~~ii. The proposed use will be at least as consistent with the policies and provisions of the SMP and as compatible with the uses in the area as the preexisting use.~~

~~iii. In addition such conditions may be attached to the permit as are deemed necessary to assure compliance with the above findings, the requirements of the master program and the SMA and to assure that the use will not become a nuisance or a hazard.~~

~~e.~~f. ~~7.~~ A nonconforming structure which is moved any distance ~~must~~ shall be brought into conformance with the SMP and the SMA.

g. Where a legally established and constructed building or structure exists that interrupts the 115-foot wide marine buffer, and the isolated part of the buffer does not provide effective biological, geological, or hydrological buffer functions relating to the nearshore environment, the City Manager or the City Manager's designee may approve proposed actions (e.g., additions to buildings) in the isolated portion of the buffer without a Shoreline Variance Permit (refer to Figure 6-1). The following conditions of approval shall be met:

Commented [JW57]: Ecology wants the addition of the definition here.

Commented [JW58]: Extracted from the original SMP 6.3.2(3).

Commented [JW59]: Taken from Ecology checklist guidance language 2017 (g) and is consistent with the DMMC, including 18.15.070(g).

Commented [JW60]: Crafted from Ecology checklist guidance language 2017 (g) and is consistent with the DMMC.

Commented [JW61]: Incorporated from DMMC 18.15.020(3)

Commented [JW62]: Moved to uses subsection, above.

Commented [JW63]: Copied this subsection from original SMP 6.1.4(3) as suggested by Ecology. Buildings and structures within the marine buffer are considered nonconforming and will be address here in the nonconforming section. When a "road" exists, and specifically only Redondo Beach Dr. ("constructed use"), it is dealt with differently and is now addressed in SMP 6.1.1.

Commented [JW64]: Clarifier.

Commented [JW65]: Removed "as long as they do not increase the degree of nonconformity" because adding onto a building, for example, would increase the degree of nonconformity since it was clarified that all buildings within the marine buffer are, by their very nature, nonconforming.

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i. Proposed actions shall not result in a net loss of shoreline ecological functions. A professional study or studies addressing the biological, geological, and hydrological buffer functions of the isolated part of the buffer shall be submitted for review. The burden of proof that the proposed actions do not result in a net loss of shoreline ecological functions is on the applicant.

ii. Proposed actions shall not result in an increase in the degree of nonconformance in regard to the underlying zone.

iii. In no case shall development encroach further waterward from the waterward-most point of the legally established and constructed building or structure.

iv. In no cases shall new development be allowed within thirty (30) feet of the marine ordinary high water mark.

The isolated part of the buffer typically extends landward and perpendicular (90 degrees) to the OHWM from an existing building or structure's footprint (refer to Figure 6-1). Interior remodels and the addition of upper stories to buildings are typically permitted without a Shoreline Variance Permit when such additions do not extend beyond the established and constructed building footprint, and they meet the provisions of this SMP.

h. ~~8. If a nonconforming use is discontinued for twelve consecutive months or for twelve months during any two-year period, the nonconforming rights shall expire and any subsequent use shall be conforming. A use authorized through a conditional use permit pursuant to subsection (6) of this section shall be considered a conforming use for purposes of this section.~~ Effect of removal or destruction of nonconforming buildings and structures.

i. Except as provided in subsection (ii) of this section, if any nonconforming building or structure is, in the judgment of the Community Development Director, removed, destroyed by means to an extent of more than 75 percent of its replacement cost at time of destruction, every future building or structure constructed, reconstructed or otherwise permitted to remain on the land on which the building or structure was located shall conform to the provisions of this SMP and the underlying zone.

ii. Reconstruction Conditions for Nonconforming Single-Family and Condominium-Residential Buildings. In any Residential Zone, nonconforming single-family residential buildings and condominiums destroyed by catastrophe or disaster such as fire, explosion, earthquake, flooding, etc., may be reconstructed as existed prior to the catastrophic event, subject to the following limitations:

A. This subsection (ii) shall not apply to reconstruction necessitated by a criminal act involving the property owner, including but not limited to arson.

B. Reconstructed building height and lot coverage shall not exceed preexisting height and lot coverage or the provisions of this SMP and the underlying zone, whichever is greater.

C. Reconstructed yard areas shall not be less than preexisting yards or the provisions of this SMP and the underlying zone, whichever is less.

D. When new building area is proposed in addition to reconstruction of a nonconforming building, the new building area shall conform to the provisions of this SMP and the underlying zone.

Commented [JW66]: Similar language is used in SMP 7.2.

Commented [JW67]: This is now defined more precisely.

Commented [JW68]: Similar language found in other cities' SMPs.

Commented [JW69]: Similar to language from Olympia's SMP.

Commented [JW70]: Moved up to the new uses subsection.

Commented [JW71]: Associated with the 11/8/18 Council Environment Committee approved regulatory change.

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E. Reconstructed building area shall conform to the requirements of Title 14 DMMC, Buildings and Construction.

Commented [JW72]: Incorporated DMMC 18.15.050, but cleaned up and removed parts that don't apply in the shoreline.

i. Reconstruction of buildings and structures partially destroyed or damaged.

i. Except as provided in subsection (ii) of this section, a nonconforming building or structure damaged or partially destroyed by fire, explosion, or other casualty or act of God or the public enemy may be restored within the preexisting building or structure footprint within the nonconforming portion of the site and the occupancy or use of such building or structure or part thereof which existed at the time of such partial destruction or damage may be continued so long as the existing nonconformities are not being increased or expanded in any way and subject to all other provisions of this SMP.

ii. In a Single-Family Residential Zone, nonconforming single-family residential buildings partially destroyed by catastrophe or disaster such as fire, explosion, earthquake, flooding, etc., may be reconstructed as existed prior to the catastrophic event, subject to the following limitations:

A. This subsection shall not apply to reconstruction voluntarily initiated by the property owner.

B. The work shall be vested by permit application within one year of such happening and any restoration or reconstruction not vested by permit application within 12 months from the date of the fire or other casualty shall be deemed abandoned and not allowed to be restored.

C. Reconstructed building height and lot coverage shall not exceed preexisting height and lot coverage or the provisions of this SMP and the underlying zone, whichever is greater.

D. Reconstructed yard areas shall not be less than preexisting yards or the provisions of this SMP and the underlying zone, whichever is less.

E. The City Manager or his designee may require minor upgrades to the rebuilt improvements that are intended to achieve a greater level of compliance with the site and design guidelines in this SMP and the underlying zone.

F. When new building area is proposed in addition to partial reconstruction of a nonconforming building, the new building area shall conform to the provisions of this SMP and the underlying zone.

~~A.~~G. Reconstructed building area shall conform to the requirements of Title 14 DMMC, Buildings and Construction.

Commented [JW73]: Incorporated DMMC 18.15.060.

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NEW FIGURE 6-1 CREATED TO ILLUSTRATE THE ISOLATED AREA OF THE MARINE BUFFER WHERE ADDITIONS ARE TYPICALLY PERMITTED.

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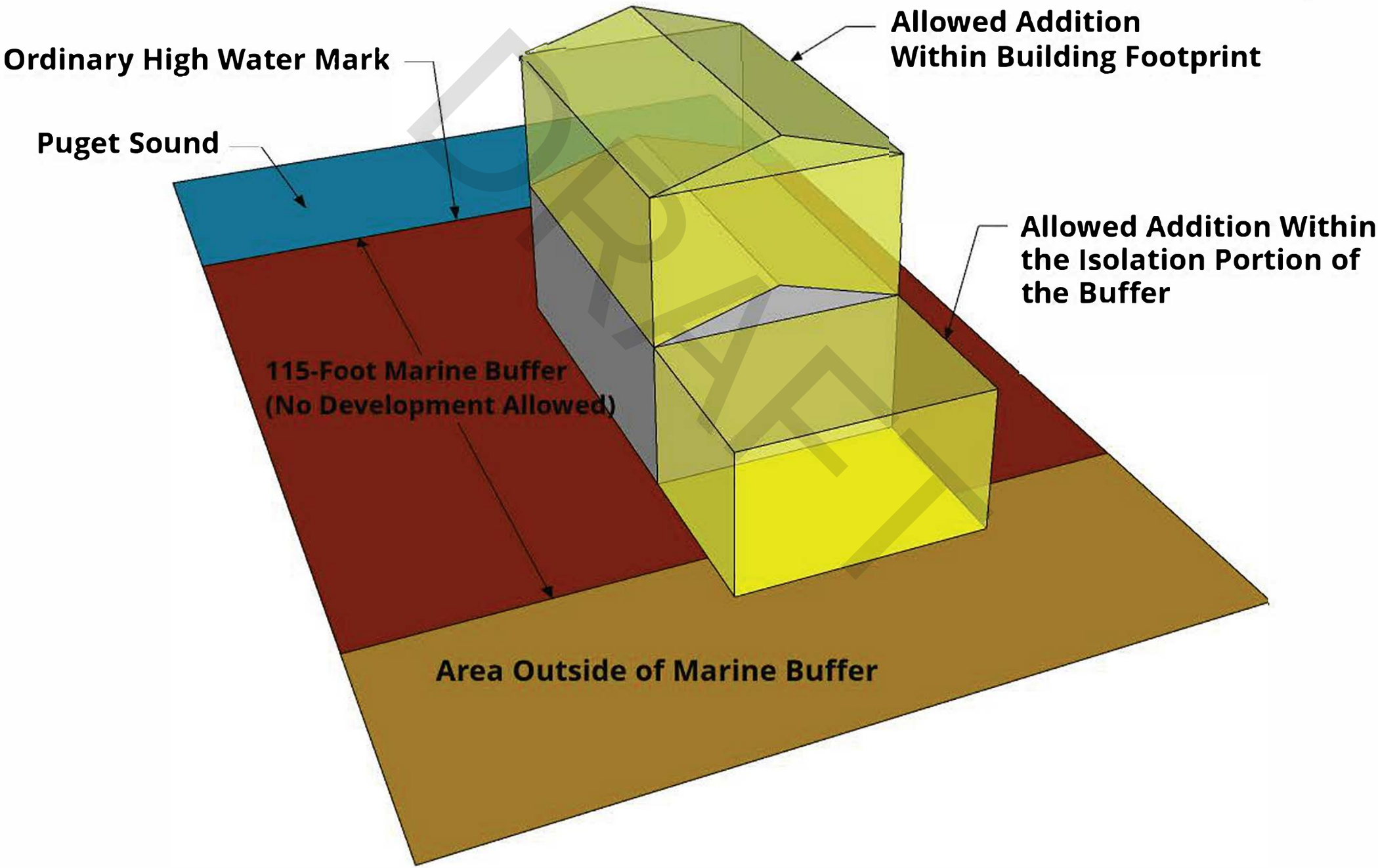
FIGURE 6-1

Legally Established and Constructed Non-Conforming Residence



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3. Nonconforming Lots

"**Nonconforming lot**" means a lot that met dimensional requirements of the applicable master program at the time of its establishment but now contains less than the required width, depth or area due to subsequent changes to the master program.

a. ~~9.~~ An undeveloped lot, tract, parcel, site, or division of land located landward of the ordinary high water mark which was established in accordance with local and state subdivision requirements prior to the effective date of the Act or the applicable master program but which does not conform to the present lot size standards may be developed if permitted by other land use regulations of the local government and so long as such development conforms to all other requirements of the applicable master program and the Act. If a lot becomes nonconforming solely because of governmental acquisition of a portion of the property for an essential public transportation facility, the property shall be considered a legal nonconforming lot.

Commented [JW74]: Ecology wants the addition of the definition here.

Commented [JW75]: From DMMC 18.15.020(3)

6.3.3 Aquaculture

1. Commercial aquaculture is prohibited in all shoreline environments.
2. Noncommercial fishing, clamming, and taking of other marine resources within the shoreline of the City of Des Moines shall be allowed only in accordance with rules and regulations established by the Washington State Department of Fish and Wildlife, the Washington State Department of Health, The U.S. Department of Fish and Wildlife, and the National Marine Fisheries Service.

6.3.4 Commercial Development

Uses and activities associated with commercial development that are identified as separate use activities in this P~~p~~rogram, such as Marinas, Piers and Docks, Signs, Utilities, etc., are subject to the regulations established for those uses in addition to the standards for commercial development.

1. Commercial development is prohibited in the Urban Conservancy, Shoreline Residential, and Aquatic shoreline environments, except that water-related and water-enjoyment commercial development is allowed in the Urban Conservancy shoreline environment.
2. Water dependent ~~and water-oriented~~ commercial development is only allowed in the ~~High-Intensity and~~ Aquatic shoreline environments~~,~~ if permitted in the adjacent shoreline environment and the High-Intensity shoreline environment.
3. Non water-oriented commercial development is allowed in the High-Intensity environments provided it is compatible and complimentary to water-oriented uses and does not displace or diminish opportunities for water-oriented uses.
4. Parking facilities shall be placed inland away from the immediate water's edge and shoreline recreational areas, except as approved by a variance.
5. New commercial development shall not block public scenic views.
6. New commercial development shall provide for public access to the shoreline.

Commented [JW76]: Associated with the 11/8/18 Council Environment Committee approved regulatory change.

Commented [JW77]: Not necessary and confusing. Water-oriented is defined as water-dependent, water-related, or water-enjoyment, or a combination of such uses.

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7. Removal of trees or natural vegetation shall be prohibited unless for public safety, scenic consideration, or public access and only where such removal will not cause degradation to shoreline ecological processes or functions.

6.3.5 Marinas / Boating Facilities

1. The following standards or use regulations are directed toward the City's Marina, the Redondo Boat Launch, and potential future marina or boat launch developments or expansions on Des Moines' shoreline. The City of Des Moines Marina and Des Moines Yacht Club are conforming water-dependent uses which will require normal maintenance and repair, including occasional replacement of elements. All marina development is prohibited in the shoreline residential and Urban Conservancy shoreline environments.
2. New public marina development or expansion of existing public marina facilities shall be allowed only in the High-Intensity shoreline environments.
3. New public or private marina development shall plan and provide for public access to shorelines of the state to include a variety of shoreline access opportunities and circulation for pedestrians (including disabled persons), bicycles, and vehicles between shoreline access points consistent with other comprehensive plan elements.
4. New private marina development or expansion of existing private marina facilities shall be allowed only in the High-Intensity shoreline environments through a Shoreline Conditional Use Permit.
5. Living aboard moored or anchored vessels outside of the Des Moines Marina is prohibited. The number of allowed live-aboard vessels in the Des Moines Marina shall be limited to 20 or less at any one time.
6. Marinas shall be aesthetically compatible with adjacent areas.
7. In addition to the provisions below, all activities, uses, and development in marinas shall comply with ~~DMMC~~ chapter 15.04 DMMC, Harbor Code, and the Des Moines Marina Rule Book, as revised to meet health, safety, and welfare requirements.
   a. All fuels and chemicals at marinas shall be kept, stored, handled and used in a manner that minimizes accidental spillage.
   b. Adequate and satisfactory means for handling accidental fuel and chemical spills ~~must~~ shall be provided.
   c. Parking facilities for marina users shall be located as far inland as possible.
   d. Parking areas that serve marinas shall conform to the regulations for transportation facilities in this master program.
   e. Vehicular access to marinas shall be confined to that which supports a water dependent or water related use.
   f. Land and water access to marinas shall be planned to minimize traffic congestion and to minimize pedestrian/vehicle conflicts.
   g. Boats shall be dry stored whenever possible to retain shoreline for other shoreline dependent uses.
   h. Shallow water embayments with poor flushing action should not be considered for overnight or long term moorage facilities.

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6.3.6 Outdoor Advertising and Signs

1. Outdoor advertising is prohibited in the Shoreline Residential, Urban Conservancy, and Aquatic shoreline environments. Public information signs are allowed for educational purposes and when required by law or necessary for public safety and circulation.
2. Outdoor advertising, when permitted by the Zoning Ordinance, c~~C~~hapter ~~18.42~~18.200 DMMC, shall be permitted within the High-Intensity shoreline environment only when the standards of this section are met.
3. ~~Illuminated signs shall require a Conditional Use Permit.~~Illuminated signs are permitted within the High Intensity Shoreline Environment ~~with~~subject to the following limitations:
   a. Illuminated signs shall be permitted under a Shoreline Substantial Development Permit.
   b. The City Manager or the City Manager's designee may condition the location, design, and/or brightness of illuminated signs to ensure no net loss of ecological functions;
   ~~a.~~c. And signs shall meet the requirements of the Des Moines Municipal Code;

~~3.~~4. Signs extending above rooflines are prohibited.

~~4.~~5. Flashing or animated signs are prohibited.

~~5.~~6. Signs, when permitted, shall be designed, constructed, and placed in a manner that does not impair views of the shoreline or impair views upland from the water. Vistas and viewpoints shall be free from unnecessary signs.

~~6.~~7. Warning signs shall be installed by the City or by other appropriate entities where hazardous conditions exist on public properties.

~~7.~~8. Signs in shoreline areas shall be maintained in a state of security, safety and repair.

6.3.7 Recreational Development

Recreational development is permitted in all shoreline environments, except aquatic, when the following standards are met:

1. Parking areas shall be located inland away from the immediate water's edge and recreational beaches. Access shall be provided by walkways or other nonmotorized methods.
2. Recreational developments shall not create significant adverse effects on residential uses of private property, the environmental quality or natural resources of the shoreline area.
3. Valuable shoreline resources and fragile or unique areas such as estuaries and accretion beaches shall be used only for non-intensive and nonstructural recreation activities.
4. All permanent recreational structures and facilities shall be located outside the one hundred-year (100-year) flood plain, although the City may grant exceptions for non-intensive accessory uses (e.g., picnic tables, play areas, etc.).
5. Accessory use facilities such as restrooms, recreation halls and gymnasiums, commercial services, access roads and parking areas shall be located inland from shoreline areas unless it can be shown that such facilities are shoreline dependent. These areas shall be linked to the shoreline by walkways.

Commented [JW78]: Associated with the 11/8/18 Council Environment Committee approved regulatory change.

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6. In approving shoreline recreational developments, the City shall ensure that the development will maintain, enhance or restore desirable shoreline features, including unique and fragile areas, scenic views and aesthetic values. To this end, the City of Des Moines may adjust and/or prescribe project dimensions, location of project components on the site, intensity of use, screening, parking requirements and setbacks as deemed appropriate to achieve the intent of this P~~p~~rogram.
7. Proposals for recreational development shall include a landscape plan in which native, self-sustaining vegetation is preferred.
8. The removal of on-site native vegetation shall be limited to the minimum necessary for the development of picnic areas, selected view or other permitted structures or facilities.

6.3.8 Residential Development

Residential use is not water-dependent but is a preferred use of the shorelines when such development is planned and carried out in a manner that protects shoreline functions and processes consistent with the no net loss provisions of this Program. Uses, structures, and alterations to the natural environment associated with residential development that are identified as separate use activities or shoreline modifications in this ~~program~~ Program (such as piers and docks; bulkheads; utilities; fill; and clearing and grading) are subject to the regulations established for those uses in addition to any special conditions relating to residential areas established in this section.

1. Residential development in the Urban Conservancy, High-Intensity, and Aquatic shoreline environments is prohibited.
2. Residential development in the Shoreline Residential environment, when permitted by the Zoning Code, shall be permitted within the shoreline area only when the standards of this section are met.
3. Residential development over water, including floating homes, is prohibited.
4. New residential development will be located and designed to avoid the need for future shoreline stabilization to the extent feasible. Plats and subdivision of land ~~must~~ shall be designed, configured, and developed in a manner that ~~assures~~ ensures that no net loss of ecological functions results from the plat or subdivision at full build-out of all lots, and prevent the need for new shoreline stabilization or flood hazard reduction measures that would cause significant impacts to other properties or public improvements or a net loss of shoreline ecological functions.~~.~~ 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.
5. Residential development shall retain and protect the natural vegetation of the shoreline area, or restore and enhance natural vegetation according to the Vegetation Conservation and Land Clearing and Grading provisions of the SMP.
6. Minimum building setbacks and buffers from bluffs, the OHWM, and stream banks shall be governed by the provisions of ~~the Critical Areas Ordinance as adopted in the SMP (Section 6.1.3)~~Section 6.4 - Critical Areas Development and Performance Standards, ~~-~~as well as other provisions of the SMP.

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7. Residential development plans submitted for approval shall contain provisions for protection of ground water supplies, erosion control, landscaping and maintenance of the natural shoreline integrity and ecological functions.
8. The established velocity, quantity and quality of storm water discharge shall be considered in terms of the sensitivity of the proposed receiving environment. The disposal mode selected shall minimize changes in infiltration, runoff and ground water recharge.
9. To the extent that all reasonable use allowed under current zoning is not precluded, residential development shall not be located or designed such that new structural shore defense or flood protection works are necessary.
10. Residential development is prohibited within the 100-year flood plain except when it can be demonstrated that the storage capacity of the flood plain will not be significantly reduced, flood hazards to upstream properties will not be increased or public safety is otherwise endangered.
11. Accretion beaches shall not be developed.

~~11.~~12. Expansion of non-conforming residential buildings shall meet the nonconforming regulations of Section 6.3.2.

6.3.9 Transportation Facilities

1. Transportation facility construction shall be permitted within the High-Intensity, Urban Conservancy, and Shoreline Residential environments according to the standards of this Program. Transportation and parking plans and projects shall be consistent with the public access and environmental protection provisions of this P~~p~~rogram.
2. Water dependent transportation facility construction (e.g., ferry terminals) shall be permitted within the aquatic environment, according to the standards of this section and subject to a Shoreline Conditional Use Permit.
3. Circulation system planning shall include systems for pedestrians, bicycles, and public transportation where appropriate.
4. All transportation facilities in shoreline areas shall be constructed and maintained to cause the least possible adverse impacts on the land and water environments, shall respect the natural character of the shoreline, and make every effort to preserve wildlife, aquatic life and their habitats.
5. Transportation facilities shall not adversely impact existing or planned water-dependent uses by impairing access to the shoreline.
6. New or expanded surface transportation facilities not related to and necessary for the support of shoreline activities shall be located outside the shoreline jurisdiction if possible, or set back from the ordinary high water mark far enough to make protective measures such as riprap or other bank stabilization, landfill, bulkheads, groins, jetties or substantial site regrade unnecessary.
7. Parking facilities in shorelines are not a preferred use and shall be allowed only as necessary to support an authorized use. Such parking facilities shall avoid or minimize any environmental or visual impacts.

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8. Transportation and utility facilities shall be required to make joint use of rights-of-way and to consolidate crossing of water bodies.
9. No vehicles shall be allowed on Des Moines' beach areas except for residential or service access to legally established uses or developments where alternative access is unavailable.
10. Fills for transportation facility development shall not be permitted in water bodies or associated wetlands and beaches except when all structural or upland alternatives have proven unfeasible and the transportation facilities are necessary to support uses consistent with this ~~p~~Program.
11. Transportation facilities that are allowed to cross over water bodies and associated wetlands shall utilize elevated, open pile or pier structures whenever feasible. All bridges shall be built high enough to allow the passage of debris and anticipated high water flows.
12. All roads shall be adequately set back from water bodies and shall provide buffer areas of compatible, self-sustaining native vegetation. Shoreline scenic drives and viewpoints may provide breaks in the vegetative buffer to allow open views of the water.
13. The City shall give preference to mechanical means for roadside brush control rather than the use of herbicides on City roads in shoreline areas. If herbicides are used, they shall be applied so that chemicals do not enter water bodies.
14. Pedestrian shoreline transportation facilities, such as footpaths and boardwalks, where permitted shall meet all standards of this section and shall be planned and developed in a way to minimize impact on the natural shoreline environment.
15. Transportation facilities shall not be permitted to locate:
    a. In hazardous areas such as steep slopes or in areas with soils subject to severe erosion or landslide hazards, or
    b. In front of feeder bluffs, over driftways, or on accretion beaches.

6.3.10 Utilities

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

1. Utilities are permitted within the High-Intensity, Urban Conservancy and Shoreline Residential environments when the standards of this section are met.
2. Utility work in the aquatic environment requires a Shoreline Conditional Use Permit.
3. Whenever feasible, all transmission lines for power, gas, sewage, communications, oil, water, etc., shall be located outside shoreline jurisdiction if possible. Where transmission lines must be located in the shoreline jurisdiction they shall be located underground.
4. Utilities shall be designed, located and installed in such a way as to preserve the natural landscape and minimize conflicts with present and planned land and shoreline uses while meeting the needs of future populations in areas planned to accommodate growth. Utility production and processing facilities, such as power plants and sewage treatment plants, or

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parts of those facilities that are nonwater-oriented shall not be allowed in shoreline jurisdiction unless it can be demonstrated that no other feasible option is available.

5. Utilities should be located in existing rights of way and corridors whenever possible.

6.3.11 Unclassified Uses

Uses that are not classified or set forth herein may only be authorized as conditional uses provided the applicant can demonstrate that the criteria set forth in Section 7.4.3 of the SMP are met. Unclassified uses approved as conditional uses should also remain consistent with the policies of the Des Moines SMP and RCW 90.58.020.

6.3.12 Underwater/Dive Parks

NEW SECTION REGARDING PERMITTING OF UNDERWATER/DIVE PARKS.

1. Underwater/dive parks are permitted within the Aquatic Environment adjacent to the High Intensity, Urban Conservancy, and Shoreline Residential Environments.
2. A Conditional Use Permit is not ~~necessary~~required if a park's location would not impair the public's use of the water. Any use or development that significantly impairs or alters the public's use of the water areas of the state shall require a Conditional Use Permit (WAC 173-26-241(2)(b)(ii)(A).
3. All land use modifications within the aquatic environments, including installation of man-made reefs, sunken boats, statues, or other such structures shall be approved by the City and all applicable state and federal agencies. A biological assessment shall be prepared as required by such agencies.
4. Safety enhancements such as buoy markers shall be installed to protect divers and swimmers from watercraft vessels.
5. A maintenance and management plan for an underwater/dive park shall be prepared and approved by the City that identifies long-term maintenance and environmental protection responsibilities at the site.
6. The City Manager or the City Manager's designee may condition the location and design of underwater/dive parks to ensure no net loss of ecological functions or loss of the public's use of the water areas of the state.

~~1.~~7. The City Manager or the City Manager's designee may add conditions to underwater/dive parks to mitigate for an increase in use of adjacent upland areas related to parks. The City may require upland enhancements such as restroom facilities, shower facility, signage, and parking.

6.4 Critical Areas Development and Performance Standards

PURSUANT TO STATE OF WASHINGTON LAW, CITY ENVIRONMENTALLY CRITICAL AREAS SHALL BE REGULATED BY SHORELINE MASTER PLANS. THE FOLLOWING CRITICAL AREA REGULATIONS ARE INCORPORATED FROM CHAPTER 16.10 DMMC.

Commented [JW79]: Associated with the 11/8/18 Council Environment Committee approved regulatory change.

Commented [JW80]: From Mukilteo's SMP.

Commented [JW81]: From Mukilteo's SMP.

Commented [JW82]: Incorporation of the City's critical area regulations as suggested by Ecology.

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Critical areas within shoreline areas are regulated by this Program. Subject to the exceptions listed in this SMP, the provisions of this section shall apply to any use, alteration, or development where designated critical areas are physically located within the shoreline jurisdiction, in addition to a shoreline permit or written statement of exemption. Designated critical areas located in the shoreline include streams and wetlands, geologically hazardous areas (which include; erosion, landslide, and seismic hazard areas), ravine sidewalls and bluffs, fish and wildlife conservation areas, areas of special flood hazard, and aquifer recharge areas.

In the event an applicant wishes to adjust standards and provisions for designated critical areas, such application shall be processed as a Shoreline Variance Permit per the provisions of this SMP and WAC 173-27. A variance is intended to allow only a minimum degree of variation from setback or other bulk, dimensional, and performance standards, just enough to afford relief of unnecessary hardships. Based upon the shoreline inventory and characterization, minimum necessary standards shall ensure no net loss of shoreline ecological functions.

For the purposes of this section, development proposals include proposals that require any of the following: right-of-way permit; building permit; land clearing, grading, or filling permit; shoreline Substantial Development Permit; Shoreline Variance Permit; shoreline Conditional Use Permit; shoreline environmental redesignation; Conditional Use Permit; DMMC variance; zone reclassification; planned unit development; subdivision; short subdivision; any other land use approvals required by this code or the RCW.

6.4.1 Purpose.

Geologically hazardous areas, hillsides, wetlands, areas of special flood hazard, fish and wildlife habitat conservation areas, aquifer recharge areas and streams, and the buffers of these areas as defined in Chapter 8, together constitute critical areas that are of special concern to the City. The purposes of this Section 6.4 is to protect the public health, safety, and welfare by preventing the adverse environmental impacts of development listed in Section 6.4.2, and by:

1. Preserving, protecting, and restoring the functions and values of critical areas by regulating development within them and their buffers;
2. Protecting the public from damage due to flooding, landslides, subsidence, and erosion;
3. Preventing adverse impacts to ground and surface water quality, wetlands, tidelands, streams, stream corridors, and fish and wildlife habitat;
4. Protecting the public against loss from:
   a. Unnecessary maintenance and replacement of public facilities;
   b. Publicly funded mitigation of avoidable impacts;
   c. Cost for public emergency rescue and relief operations; and
   d. Potential litigation from improper construction practices authorized for critical areas;
5. Upon notice to the City, alerting appraisers, assessors, owners, and potential buyers or lessees to the development limitations of critical areas;
6. Providing City officials with information to approve, condition, or deny public or private development proposals;

Commented [JW83]: Taken from original SMP 1.4.

Commented [JW84]: Taken from original 6.1.4(1).

Commented [JW85]: Taken from original 6.1.4(4).

Commented [JW86]: Standard language merged from SMP 6.1.1(5) and 7.5.1.

Commented [JW87]: DMMC 16.10.010 removed because not applicable. This paragraph taken from DMMC 16.10.020(2). DMMC 16.10.010(1) and (3) removed because they are procedural and don't apply in the SMP.

Commented [JW88]: Adding the necessary definitions from 16.01 DMMC to chapter 8 of the SMP.

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7. Providing predictability and consistency to City environmental review procedures;
8. Protecting sensitive, unique, fragile, and valuable features of the City's environment;
9. Adopting a goal of no overall net loss of wetland and stream functions and values; and the long-term goal to increase the quantity and quality of Washington's wetlands and streams;
10. Implementing the policies of the State Environmental Policy Act (chapter 43.21C RCW), Puget Sound Water Quality Management Plan, Washington State Executive Order 90-04, the Des Moines Comprehensive Plan, Shoreline Master Program, and all other present and future City functional and community plans and programs as presently constituted or as may be subsequently amended; and
11. Provide for mitigation of potential impacts to critical areas using the following descending order of preference:
    a. Avoid the impact altogether by not taking a certain action or parts of an action;
    b. Minimize impact 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 impact;
    c. Rectify the impact by repairing, rehabilitating, or restoring the affected environmentally critical areas;
    d. Reduce or eliminate the impact over time by prevention and maintenance operations during the life of the actions;
    e. Compensate for the impact by replacing, enhancing, or providing substitute environmentally critical areas and environments; and
    f. Monitor the impact and take appropriate corrective measures;
12. Sources for attaining maps to determine where critical fish and wildlife habitats occur and the species that are present include:
    a. Washington Department of Fish and Wildlife Priority Habitat and Species maps;
    b. Washington State Department of Natural Resources official water type reference maps, as amended;
    c. Washington State Department of Natural Resources Puget Sound Intertidal Habitat Inventory maps;
    d. Washington State Department of Natural Resources Shorezone Inventory maps;
    e. Anadromous and resident salmonid distribution maps contained in the Habitat Limiting Factors reports published by the Washington Conservation Commission;
    f. Washington State Department of Health Annual Inventory of Shellfish Harvest Areas;
    g. Washington State Department of Natural Resources State Natural Area Preserves and Natural Resource Conservation Area maps;
    h. Washington State Department of Natural Resources Natural Heritage Program mapping data;
    i. Any local City or King County maps available.

Commented [JW89]: Removed "chapter 16.10 DMMC" because not applicable in the shoreline. "Shoreline Master Program" already exists here.

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6.4.2 City Council findings.

Commented [JW90]: The 2 sections before this one, DMMC 16.10.040 and 050, have been removed because they conflict with the authority of the SMP.

The City Council finds that:

1. Development in wetlands results in:
   a. Increased soil erosion and sedimentation of downstream water bodies;
   b. Degraded water quality from increased sedimentation;
   c. Degraded water quality from loss of pollutant removal process of wetlands – sediment trapping, nutrient removal, and chemical detoxification;
   d. Elimination of wildlife and fisheries habitat. Wetland ecosystems support a diverse, unique, and rich group of flora and fauna. Habitat is especially productive at the interface between water and land ecosystems. Several wildlife species specifically require wetland habitats for breeding, nesting, rearing of young, and feeding;
   e. Loss of ground water discharge and recharge areas;
   f. Loss of storm water retention and detention capacity resulting in increased flooding, degraded water quality, and changes in the streamflow regimen of watersheds;
   g. Loss of slow-release detention resulting in loss of recharge to base flow of stream systems during low flow periods and increased peak flows and flooding during storm events; and
   h. Loss of fishery resources from water quality degradation, increased peak flow rates, decreased summer low flows, and changes in the streamflow regimen.
2. Development in stream corridors results in:
   a. Siltation of streams, which destroys spawning beds, kills fish eggs and alevins, irritates fish gills, reduces aquatic insect populations, fills stream channels, and causes flooding;
   b. Loss of stream corridor vegetation, which raises stream temperatures, destabilizes stream banks, causes erosion, removes nutrients by removing source of fallen leaves and streamside insects, increases sedimentation, and reduces recruitment of large wood debris necessary for stream structure;
   c. Elimination of wildlife and fish habitat. The stream corridor is especially sensitive and is recognized as being among the most productive terrestrial and aquatic ecosystems. It usually provides all four of the basic habitat components: water, food, cover, and space. The stream corridor is usually richer in habitat diversity and, consequently, wildlife diversity and numbers of individuals are higher than in adjoining upland plant communities. Certain fish and wildlife species are totally dependent on the stream corridor and as uplands are developed, stream corridors become a place of refuge for many wildlife species;
   d. Increased peak flow rates and decreased summer low flow rates of streams, resulting in negative impacts to the physical and chemical requirements critical for sustained fish populations;

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e. Stream channelization, which increases current velocity and bank erosion, removes critical fish rearing and spawning habitat, and reduces habitat diversity and simplifies the biotic community;

f. Piping of streamflow and crossing of streams by culverts, which increases potential for downstream flooding, reduces migratory fishery range and, therefore, fish populations, removes habitat, and eliminates the biotic community; and

g. Construction near or within streams, which adversely impacts fish and wildlife by destroying habitat and degrading water quality and increases potential for flooding, property damage, and risk to public health, safety, and welfare.

3. Development on hillsides results in:

a. The loss of slope and soil stability as well as increased erosion. The removal of vegetation from hillsides deprives the soil of the stabilizing function of roots, and the moderating effects on wind and water erosion of leaves and branches. Loss of soil stability increases erosion and thus lowers downstream water quality as a result of siltation. Downstream wetlands can be injured in this way. Strong rains on unstable slopes can produce mass movements, such as landslides, slumps, and flaws, particularly in steeply sloping areas;

b. Increased runoff. Development may alter the natural drainage pattern of a hillside, producing increased runoff and erosion. Removal of vegetative cover decreases percolation of precipitation into the soil, thereby reducing the amount of ground water recharge and adding water to runoff that would ordinarily be transpired by trees, shrubs, and ground covers. Construction of impervious surfaces, such as roads, parking lots, and buildings, decreases the amount of ground water percolation and thus increases the amount of runoff. Increased runoff, in addition to producing intensified erosion, also creates downstream flood hazards;

c. Destruction of the community's aesthetic resources. The hillsides of Des Moines mark the boundaries of several neighborhoods, lend natural character and distinctive features to the City, and provide open space and viewing points of remarkable vistas. They are also often associated with stream corridors and wetlands of the City. Degradation of hillsides resulting from erosion, mass movement, loss of vegetation, and damage to downstream areas deprives Des Moines of its attractive and distinctive setting, and decreases real estate values; and

d. Major public expenditures to repair facility damages and protect against future damages due to instability created or exacerbated by development.

6.4.3 Special studies required.

When an applicant submits an application for any development proposal, the application shall indicate whether any critical area is located on the site. The City Manager or the City Manager's designee shall visit the subject property and review the information submitted by the applicant along with any other available information. If the City Manager or the City Manager's designee determines that sufficient environmental information to evaluate a proposal is not available, the City Manager or the City Manager's designee shall notify the applicant that special environmental studies are required. Special environmental studies shall include a comprehensive

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site inventory and analysis, a discussion of potential impacts from the proposed development, and specific measures designed to mitigate any potential adverse environmental impacts of the applicant's proposal, on- and off-site. All special studies shall be funded by the applicant and conducted under the direct supervision of the ~~Planning, Building~~Community Development and Public Works Departments.

6.4.4 Maps and inventories.

1. The general distribution of critical areas in the City and its planning area is displayed by a series of maps within the conservation element of the Des Moines Comprehensive Plan. These maps shall be used to alert the public and City officials of the potential presence of critical areas on-site or off-site of a development proposal.
2. Information provided by the maps of critical areas shall be used for general informational and illustrative purposes only. In cases of mapping error and recognizing that critical areas are dynamic environmental processes, the actual presence and location of critical areas, as determined by qualified professional and technical scientists, shall govern the treatment of a proposed development site.

6.4.5 Best management practices required.

All allowed activities under this section shall be conducted using the best management practices, adopted pursuant to the King County Surface Water Design Manual which is adopted by this provision and implemented herein, that result in the least amount of impact to the critical areas. Best management practices shall be used for tree, soil, and vegetation protection, construction management, erosion and sedimentation control, water quality protection, and regulation of chemical applications. The City shall observe the use of best management practices to ensure that the activity does not result in degradation to the critical area. Any incidental damage to, or alteration of, a critical area shall be restored, rehabilitated, or replaced at the responsible party's expense.

Commented [JW91]: Removed reference to chapter 16.10 DMMC. The critical area regulations of the SMP are independent of the regulations found in chapter 16.10 DMMC.

6.4.6 Development restrictions.

1. Undevelopable Environmentally Critical Areas. The following environmentally critical areas shall remain undeveloped except as otherwise provided in SMP 6.4.8 through 6.4.10, 6.4.13 through 6.4.15, and 6.4.19 and 6.4.26.
   a. Wetlands and Their Buffers. The edge of the wetland and the outside edge of its buffer shall be determined and field marked by a professional wetland biologist or similarly qualified professional in accordance with the federal wetland delineation manual and applicable regional supplements;
   b. Streams and Their Buffers. The top of the upper bank of the streams and the outside edge of its buffer shall be determined and field marked by a professional biologist, ecologist, or similarly qualified professional; and
   c. Ravine Sidewalls and Bluffs and Their Buffers. The top, toe, and edges of ravine sidewalls and bluffs, and the outside edge of their buffers, shall be determined and field marked by a qualified geotechnical engineer or similarly qualified professional.

Commented [JW92]: Changed from "DMMC 16.10.120 through 16.10.140, 16.10.170 through 16.10.190, and 16.10.230 and 16.10.300"

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2. Developable Critical Areas. Critical aquifer recharge areas, areas of special flood hazard, fish and wildlife habitat conservation areas, and hillsides other than ravine sidewalls and bluffs are developable pursuant to the provisions of this SMP. The applicant shall clearly and convincingly demonstrate to the satisfaction of the City Manager or the City Manager's designee that the proposal incorporates measures protecting the public health, safety, and welfare.

6.4.7 Development standards – Compliance – Requirements.

If a proposed project is within, adjacent to, or is likely to impact a critical area, all activities on the site shall be in compliance with the requirements and restrictions set forth in SMP 6.4.8 through 6.4.24.

Commented [JW93]: Changed from DMMC 16.10.120 through 16.10.280. Removed reference to chapter 16.10 DMMC. The critical area regulations of the SMP are independent of the regulations found in chapter 16.10 DMMC.

6.4.8 Wetlands – Development standards.

If a wetland is located on or contiguous to the site of a development proposal, all activities on the site shall be in compliance with the following requirements and restrictions:

1. General Performance Requirements.
   a. Activities may only be permitted in a wetland or wetland buffer if the applicant can show that the proposed activity will not degrade the functions and functional performance of the wetland.
   b. Activities and uses shall be prohibited in wetlands and wetland buffers, except as provided for in this SMP.
   c. Category I Wetlands. Activities and uses shall be prohibited from Category I, except as provided for in this SMP.
   d. Category II and III Wetlands. With respect to activities proposed in Category II and III wetlands, the following standards shall apply:
      i. Where wetland fill is proposed, activities and uses shall be prohibited unless the applicant can demonstrate that:
         A. The basic project purpose cannot reasonably be accomplished on another site or sites in the general region while still successfully avoiding or resulting in less adverse impact on a wetland; and
         B. All on-site alternative designs that would avoid or result in less adverse impact on a wetland or its buffer, such as a reduction in the size, scope, configuration or density of the project, are not feasible. Compensation for the loss of acreage and functions of wetland and buffers shall be provided under the terms established under SMP 6.4.11.
   e. Category IV Wetlands. Activities and uses that result in unavoidable and necessary impacts may be permitted in Category IV wetlands and associated buffers in accordance with an approved special environmental study and mitigation plan, and only if the proposed activity is the only reasonable alternative that will accomplish the applicant's objectives. Compensation for the acreage and loss functions will be provided under the terms established under SMP 6.4.11.

Commented [JW94]: Removed references to utility exception, reasonable use exception, and variances in order to reduce confusion between DMMC critical area permitting procedures and shoreline permitting procedures.

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Commented [JW96]: Changed from DMMC 16.10.150.

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~~1.~~2. Wetland Buffers. The following standard buffers shall be established from the wetland edge as delineated and marked in the field:

	Width of Buffer (feet)
Category I Wetlands	
High habitat function (habitat score 8 – 9)	300
Moderate habitat function (habitat score 5 – 7)	150
High water quality function and low habitat function or none of the above characteristics (habitat score less than 5)	100
Category II Wetlands	
High habitat function (habitat score 8 – 9 points)	300
Moderate habitat function (habitat score 5 – 7)	150
High water quality function and low habitat function or none of the above characteristics (habitat score less than 5)	100
Category III Wetlands	
Moderate habitat function (habitat score 5 – 7)	150
Low habitat or not meeting above criteria (habitat score less than 5)	80
Category IV Wetlands	
Low functions	50

a. Where a legally established and constructed street transects a wetland buffer, the City Manager or the City Manager's designee may approve a modification of the standard buffer width to the edge of the right-of-way if the isolated part of the buffer does not provide additional protection of the wetland and provides insignificant biological, geological or hydrological buffer functions relating to the wetland. If the resulting buffer distance is less than 50 percent of the standard buffer for the applicable wetland category, no further reduction shall be allowed through wetland buffer reduction or averaging.

b. Where a buffer has been previously established through City or county development review, and is permanently recorded on title or placed within a separate tract, the buffer shall be as previously established.

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3. Building Setback Lines. A building setback line of 10 feet is required from the edge of any wetland buffer. Minor structural intrusions into the area of the building setback line may be allowed if the City Manager or the City Manager's designee determines that such intrusions will not negatively impact the critical area.

4. Increased Wetland Buffers. The City Manager or the City Manager's designee may require either additional native vegetation to achieve purposes of this SMP or increased buffer sizes when environmental information indicates the necessity for greater buffers to protect critical area functions, values, or hazards based on site-specific conditions. This determination shall be supported by appropriate documentation showing that additional buffer width is reasonably related to protection of critical area functions and values, or protection of public health, safety and welfare. Such determination shall be attached as permit conditions. The determination shall demonstrate that at least one of the following criteria are met:

   a. There is habitat for species listed as threatened or endangered by state or federal agencies present within the environmentally critical area and/or its buffer, and additional buffer is necessary to maintain a viable functional habitat; or

   b. There are conditions or features adjacent to the buffer, such as steep slopes or erosion hazard areas, which over time may pose an additional threat to the viability of the buffer or buffers, if any, associated with the conditions or feature posing the threat in addition to, or to a maximum, beyond the buffer required for the subject critical area.

   c. In cases where additional buffers are not feasible, the City Manager or the City Manager's designee may require the applicant to undertake alternative on-site or off-site mitigation measures, including but not limited to a financial contribution to projects or programs which seek to improve environmental quality within the same watershed.

5. Wetland Buffer Averaging. The City Manager or the City Manager's designee may allow modification of the standard wetland buffer width in accordance with an approved special environmental study and the best available science on a case-by-case basis by averaging buffer widths. Averaging of buffer widths may only be allowed where a qualified professional wetland scientist demonstrates that:

   a. It will not reduce wetland functions or functional performance;

   b. The wetland contains variations in sensitivity due to existing physical characteristics or the character of the buffer varies in slope, soils, or vegetation, and the wetland would benefit from a wider buffer in places and would not be adversely impacted by a narrower buffer in other places;

   c. The total area contained within the buffer after averaging is no less than that which would be contained within the standard buffer; and

   d. The buffer width is not reduced to less than 75 percent of the standard width.

6. Wetland Buffer Reduction. The City Manager or the City Manager's designee may allow reduction of the required wetland buffer widths when accompanied by a special study that identifies appropriate mitigation strategies. Reduction of wetland buffer widths may be allowed where a qualified professional wetland scientist demonstrates that:

   a. The reduction in buffer width is based on reducing the intensity of impacts from proposed land uses. Buffer widths required for proposed land uses with high-intensity impacts to

Commented [JW97]: Changed from "chapter" which referred to DMMC 16.10.

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wetlands may be reduced to those recommended for moderate-intensity impacts under the following conditions:

i. For wetlands that score moderate or high for habitat (five points or more for the habitat functions), the width of the buffer can be reduced if both of the following criteria are met:

A. A relatively undisturbed, vegetated corridor at least 100 feet wide is protected between the wetland and any other priority habitats as defined by the Washington State Department of Fish and Wildlife. The corridor shall be protected for the entire distance between the wetland and the priority habitat by some type of legal protection such as a conservation easement.

B. Measures to minimize the impacts of different land uses on wetlands, such as the examples summarized in Table 8C-8 from "Wetlands in Washington State: Volume 2 – Protecting and Managing Wetlands" (Ecology, 2005), are applied.

ii. For wetlands that score less than five points for habitat, the buffer width can be reduced to that required for moderate land-use impacts by applying measures to minimize the impacts of the proposed land uses. Measures include but are not limited to the following: direct light and noise away from wetlands, route untreated runoff away from wetlands, apply an integrated pest management program, use privacy fencing or vegetative buffer to delineate the wetland buffer edge and discourage disturbance, and use best management practices to control dust (see examples in Table 8C-8).

b. Reductions in buffer widths where existing roads or structures lie within the buffer. Where a legally established, nonconforming use of the buffer exists (e.g., a road or structure that lies within the width of buffer recommended for that wetland), proposed actions in the buffer may be permitted as long as they do not increase the degree of nonconformity, or if no reasonable alternative exists. This means no increase in the impacts to the wetland from activities in the buffer.

6.4.9 Wetlands – Adjustments to dimensional requirements and other allowances.

Commented [JW98]: Removed "reasonable use exception" because that is a DMMC critical area permitting procedure that does not apply to shoreline permitting procedures.

1. Adjustments to Dimensional Requirements – Yard Reductions for Building One Single-Family Dwelling. The City Manager or the City Manager's designee may allow modification to the required front, rear, or side yard on the opposite of the wetland. The reductions shall meet the following standards:

   a. The wetland, wetland buffer and required yard area opposite the wetland equals more than 50 percent of the property dimension of the development site.

   b. A required side yard is reduced to five feet.

   c. A required front or rear yard is reduced to 10 feet.

2. Single-Family Dwelling. Development of one single-family dwelling within the buffer of a wetland on a development site shall be approved by the City Manager or the City Manager's designee if the applicant demonstrates that:

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a. The extent of development within the buffer is limited to that which is necessary to create a developable area which is no larger than 4,000 square feet;

b. The proposal utilizes to the maximum extent possible the best available construction, design, and development techniques which result in the least adverse impact on the critical area;

c. The proposal incorporates the development standards of SMP 6.4.9 through 6.4.11 and the Surface Water Design Manual adopted pursuant to SMP 6.4.30 to the maximum extent possible; and

d. The proposal is consistent with the purpose and intent of this SMP.

6.4.10 Wetlands – Limited exceptions.

The City Manager or the City Manager's designee may allow exceptions from the provisions of this section based on the following criteria:

1. Wetlands larger than 4,000 square feet will be evaluated using standard procedures for wetland review.
2. Wetlands between 1,000 and 4,000 square feet shall be evaluated using the Washington State Wetland Rating System for Western Washington (Ecology Publication No. 14-06-29, October 2014, or as revised) to establish category and evaluate functions. The following criteria and local knowledge of natural resources shall be used to determine whether to exempt wetlands between 1,000 and 4,000 square feet from the requirement to avoid impacts:
   a. The requirement to avoid impacts may be dropped for Category III and IV wetlands between 1,000 and 4,000 square feet that meet all of the following criteria:
      i. Wetland is not associated with a riparian corridor; and
      ii. Wetland is not part of a wetland mosaic; and
      iii. Wetland does not score five points or more for habitat in the wetland rating system; and
      iv. Wetland does not contain habitat identified as essential for local populations of priority species identified by the Washington Department of Fish and Wildlife.
   b. Impacts allowed under this provision to these wetlands will be fully mitigated as set forth in SMP 6.4.11.
   c. All Category I and II wetlands between 1,000 and 4,000 square feet should be evaluated with full mitigation sequencing and buffer establishment. Any approved impacts should be adequately compensated by mitigation as set forth in SMP 6.4.11.
3. Wetlands less than 1,000 square feet shall be exempt from regulation where the applicant has shown that they:
   a. Are not associated with a riparian corridor;
   b. Are not part of a wetland mosaic; and

Commented [JW99]: Changed from DMMC 16.10.130 through 16.10.150.

Commented [JW100]: Changed from DMMC 16.10.350.

Commented [JW101]: Changed from "exemptions" to "exceptions" since "exemptions" have a specific and different meaning within the SMP.

Commented [JW102]: Changed from "exemptions" to "exceptions" since "exemptions" have a specific and different meaning within the SMP.

Commented [JW103]: Changed from DMMC 16.10.150.

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c. Do not contain habitat identified as essential for local populations of priority species identified by the Washington Department of Fish and Wildlife.

6.4.11 Wetlands – Mitigation requirements.

1. Compensatory mitigation for alterations to wetlands shall achieve equivalent or greater biologic functions. Compensatory mitigation plans shall be consistent with the Guidance on Wetland Mitigation in Washington State – Part 2: Guidelines for Developing Wetland Mitigation Plans and Proposals, April 2004 (Washington State Department of Ecology, U.S. Army Corps of Engineers Seattle District, and U.S. Environmental Protection Agency Region 10; Ecology Publication No. 04-06-013b), or as revised.
2. Mitigation shall be required in the following order of preference:
   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 such as project redesign, relocation, or timing, 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.
   f. Monitoring the required compensation and taking remedial or corrective measures when necessary.
3. Compensating for Lost or Affected Functions. Compensatory mitigation shall address the functions affected by the proposed project, with an intention to achieve functional equivalency or improvement of functions. The goal shall be for the compensatory mitigation to provide similar wetland functions as those lost, except when either:
   a. The lost wetland provides minimal functions as determined by a site-specific function assessment, and the proposed compensatory mitigation action(s) will provide equal or greater functions or will provide functions shown to be limiting within a watershed through a formal Washington State watershed assessment plan or protocol; or
   b. Out-of-kind replacement of wetland type or functions will best meet watershed goals formally identified by the City, such as replacement of historically diminished wetland types.
4. Preference of Mitigation Actions. Methods to achieve compensation for wetland functions shall be approached in the following order of preference:
   a. Restoration (re-establishment and rehabilitation) of wetlands.
   b. Creation (establishment) of wetlands on disturbed upland sites such as those with vegetative cover consisting primarily of nonnative introduced species. This should only be attempted when there is an adequate source of water and it can be shown that the

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surface and subsurface hydrologic regime is conducive for the wetland community that is anticipated in the design.

c. Enhancement of significantly degraded wetlands in combination with restoration or creation. Such enhancement should be part of a mitigation package that includes replacing the impacted area and meeting appropriate ratio requirements.

5. Type and Location of Compensatory Mitigation. Unless it is demonstrated that a higher level of ecological functioning would result from an alternate approach, compensatory mitigation for ecological functions shall be either in-kind and on-site, or in-kind and within the same stream reach, sub-basin, or drift cell (if estuarine wetlands are impacted). Compensatory mitigation actions shall be conducted within the same sub-drainage basin and on the site of the alteration except when all of the following apply:

a. There are no reasonable on-site or in sub-drainage basin opportunities (e.g., on-site options would require elimination of high-functioning upland habitat), or on-site and in sub-drainage basin opportunities do not have a high likelihood of success based on a determination of the capacity of the site to compensate for the impacts. Considerations should include: anticipated replacement ratios for wetland mitigation, buffer conditions and proposed widths, available water to maintain anticipated hydrogeomorphic classes of wetlands when restored, proposed flood storage capacity, and potential to mitigate riparian fish and wildlife impacts (such as connectivity);

b. Off-site mitigation has a greater likelihood of providing equal or improved wetland functions than the impacted wetland; and

c. Off-site locations shall be in the same sub-drainage basin unless:

i. Established watershed goals for water quality, flood storage or conveyance, habitat, or other wetland functions have been established by the City and strongly justify location of mitigation at another site; or

ii. Credits from a state-certified wetland mitigation bank are used as compensation and the use of credits is consistent with the terms of the bank's certification;

d. The design for the compensatory mitigation project needs to be appropriate for its location (i.e., position in the landscape). Therefore, compensatory mitigation should not result in the creation, restoration, or enhancement of an atypical wetland. An atypical wetland refers to a compensation wetland (e.g., created or enhanced) that does not match the type of existing wetland that would be found in the geomorphic setting of the site (i.e., the water source(s) and hydroperiod proposed for the mitigation site are not typical for the geomorphic setting). Likewise, it should not provide exaggerated morphology or require a berm or other engineered structures to hold back water. For example, excavating a permanently inundated pond in an existing seasonally saturated or inundated wetland is one example of an enhancement project that could result in an atypical wetland. Another example would be excavating depressions in an existing wetland on a slope, which required the construction of berms to hold the water.

6. Timing of Compensatory Mitigation. It is preferred that compensatory mitigation projects be completed prior to activities that will disturb the on-site wetlands. At the least, compensatory mitigation shall be completed immediately following disturbance and prior to use or occupancy of the action or development. Construction of mitigation projects shall be timed to

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reduce impacts to existing fisheries, wildlife, and flora. The City Manager or the City Manager's designee may authorize a one-time temporary delay in completing construction or installation of the compensatory mitigation when the applicant provides a written explanation from a qualified wetland professional as to the rationale for the delay. An appropriate rationale would include identification of the environmental conditions that could produce a high probability of failure or significant construction difficulties (e.g., project delay lapses past a fisheries window; or installing plants should be delayed until the dormant season to ensure greater survival of installed materials). The delay shall not create or perpetuate hazardous conditions or environmental damage or degradation, and the delay shall not be injurious to the health, safety, and general welfare of the public. The request for the temporary delay shall include a written justification that documents the environmental constraints that preclude implementation of the compensatory mitigation plan. The justification shall be verified and approved by the City.

~~1.~~7. Mitigation Ratios. The following ratios shall apply to creation or restoration that is in-kind, is on-site, is the same category, is timed prior to or concurrent with alteration, and has a high probability of success. The first number specifies the acreage of replacement wetlands and the second specifies the acreage of wetlands altered.

Wetland Mitigation Ratios

	Enhancement	Rehabilitation	Creation
Category I	16:1	8:1	4:1
Category II	12:1	6:1	3:1
Category III	8:1	4:1	2:1
Category IV	6:1	3:1	1.5:1

a. The mitigation ratio is the acreage required for compensatory mitigation divided by the acreage of impact.

b. The ratios are for a concurrent compensatory mitigation project. If the impacts to a wetland are to be mitigated by using an approved and established mitigation bank, the rules and ratios applicable to the bank should be used.

c. The ratios are based on the assumption that the category, based on wetland ratings established in Chapter 8 (definition of wetland), and hydrogeomorphic (HGM) class/subclass of the wetland proposed as compensation are the same as the category and HGM class/subclass of the wetland impacts.

d. Ratios for projects in which the category and HGM class/subclass of wetlands proposed as compensation are not the same as that of the wetland impacts will be determined on a case-by-case basis using the recommended ratios as a starting point. The ratios could be higher in such cases.

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e. Creation can be used in combination with rehabilitation or enhancement. For example, two acres of impact to a Category II wetland would require two acres of creation (i.e., replacing the lost acreage at a 1:1 ratio) and eight acres of rehabilitation or 16 acres of enhancement.

f. Generally the use of enhancement alone as compensation is discouraged. Using enhancement in combination with some amount of creation is preferred.

8. Preservation. Impacts to wetlands may be mitigated by preservation of wetland areas when used in combination with other forms of mitigation such as creation, restoration, or enhancement. Preservation may also be used by itself, but more restrictions apply as outlined below.

a. Acceptable Uses of Preservation. The preservation of at-risk, high quality wetlands and habitat may be considered as part of an acceptable mitigation plan when the following criteria are met:

i. Preservation is used as a form of compensation only after the standard sequencing of mitigation (avoid, minimize, and then compensate). See subsection (2) of this section;

ii. Restoration (re-establishment and rehabilitation), creation, and enhancement opportunities have also been considered, and preservation is proposed by the applicant and approved by the permitting agencies as the best compensation option;

iii. The preservation site is determined to be under imminent threat; that is, the site has the potential to experience a high rate of undesirable ecological change due to on-site or off-site activities that are not regulated (e.g., logging of forested wetlands). This potential includes permitted, planned, or likely actions;

iv. The area proposed for preservation is of high quality or critical for the health of the watershed or basin due to its location. Some of the following features may be indicative of high quality sites:

A. Category I or II wetland rating;

B. Rare or irreplaceable wetland type (e.g., bogs, mature forested wetlands, estuaries) or aquatic habitat that is rare or a limited resource in the area;

C. Habitat for threatened or endangered species;

D. Provides biological and/or hydrological connectivity;

E. High regional or watershed importance (e.g., listed as priority site in a watershed or basin plan);

F. Large size with high species diversity (plants and/or animals) and/or high abundance of native species;

G. A site that is continuous with the head of a watershed, or with a lake or pond in an upper watershed that significantly improves outflow hydrology and water quality.

b. Preservation in Combination with Other Forms of Compensation. Using preservation as compensation is acceptable when done in combination with restoration, creation, or enhancement; provided, that a minimum of 1:1 acreage replacement is provided by reestablishment or creation and the criteria below are met:

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i. All criteria listed in subsection (8)(a) of this section are met;

ii. The impact area is small and/or impacts are occurring to a low functioning system (Category III or IV wetland);

iii. Preservation of a high-quality system occurs in the same watershed or basin as the wetland impact;

iv. Preservation sites include buffer areas adequate to protect the habitat and its functions from encroachment and degradation; and

v. Mitigation ratios for preservation in combination with other forms of mitigation shall range from 10:1 to 20:1, as determined on a case-by-case basis, depending on the quality of the wetlands being impacted and the quality of the wetlands being preserved.

c. Preservation as the Sole Means of Compensation for Wetland Impacts. Preservation alone shall only be used as compensatory mitigation in exceptional circumstances. Preservation alone shall not apply if impacts are occurring to functions that must be replaced on-site, such as flood storage or water quality treatment that need to be replicated by water quality measures implemented within the project limits. Preservation of at-risk, high-quality wetlands and habitat (as defined above) may be considered as the sole means of compensation for wetland impacts when the following criteria are met:

i. All criteria listed in subsections (8)(a) and (8)(b) of this section are met;

ii. There are no adverse impacts to habitat for fish and species listed as endangered and threatened;

iii. There is no net loss of habitat functions within the watershed or basin;

iv. Higher mitigation ratios are applied. Mitigation ratios for preservation as the sole means of mitigation shall generally start at 20:1. Specific ratios should depend upon the significance of the preservation project and the quality of the wetland resources lost.

9. Wetland Mitigation Banks.

a. Credits from a wetland mitigation bank may be approved for use as compensation for unavoidable impacts to wetlands when:

i. The bank is certified under chapter 173-700 WAC;

ii. The City Manager or the City Manager's designee determines that the wetland mitigation bank provides appropriate compensation for the authorized impacts; and

iii. The proposed use of credits is consistent with the terms and conditions of the bank's certification.

b. Replacement ratios for projects using bank credits shall be consistent with replacement ratios specified in the bank's certification.

c. Credits from a certified wetland mitigation bank may be used to compensate for impacts located within the service area specified in the bank's certification. In some cases, the service area of the bank may include portions of more than one adjacent drainage basin for specific wetland functions.

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10. Substitute Fees. In cases where the applicant demonstrates to the satisfaction of the City Manager or the City Manager's designee that a suitable compensation site does not exist, the City Manager or the City Manager's designee may allow the applicant to make a financial contribution to a water quality project or program performing critical areas enhancement, restoration, or mitigation. The project or program shall improve environmental quality within the same watershed as the altered wetland. The amount of the fee shall be determined by the City Manager or the City Manager's designee and shall be equal to the cost of mitigating the impact of the wetland alteration.
11. Mitigation Plan Requirements. When mitigation is required, the applicant shall submit for approval a mitigation plan prepared by a qualified scientist(s) following procedures set forth in the state Department of Ecology Guidelines for Developing Freshwater Wetlands Mitigation Plans and Proposals, 2004, or as revised.
12. Final Approval. The City Manager or the City Manager's designee shall grant final approval of a completed compensation project if the final report of the project mitigation plan satisfactorily documents that the area has achieved all requirements of this section and SMP 6.4.27.

Commented [JW106]: Changed from DMMC 16.10.310.

6.4.12 Streams – Development standards.

If a stream is located on or contiguous to the site of a development proposal, all activities on the site shall be in compliance with the following requirements and restrictions:

1. Stream Buffers. The following standard buffers shall be measured from the ordinary high water mark or from the top of the bank if the ordinary high water mark cannot be identified:

Water Type	Buffer Width (feet)
Types S or F	115
Types Np or Ns	65

Type S: streams inventoried as "shorelines of the state" under the City's Shoreline Master Program.

Type F: streams that are salmonid-bearing or have the potential to support salmonids.

Type Np: streams that are perennial during a year of normal rainfall and do not have the potential to support salmonids use.

Type Ns: streams that are seasonal or ephemeral during a year of normal rainfall and do not have the potential to support salmonids use.

a. Where a legally established and constructed street transects a stream buffer, the City Manager or the City Manager's designee may approve a modification of the standard buffer width to the edge of the street if the isolated part of the buffer does not provide additional protection of the stream and provides insignificant biological, geological or

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hydrological buffer functions relating to the stream. If the resulting buffer distance is less than 50 percent of the standard buffer, no further reduction shall be allowed.

b. Where a buffer has been previously established through City or county development review, and is permanently recorded on title or placed within a separate tract, the buffer shall be as previously established, provided it is at least 50 percent of the required standard buffer distance.

c. Any stream relocated or altered as part of approved mitigation measures shall have at least the minimum buffer required for the type of stream involved.

d. If the stream buffer includes a steep slope hazard area or landslide hazard area, the stream buffer width is the greater of either the stream buffer in this section or 25 feet beyond the top of the hazard area.

e. Any stream adjoined by a riparian wetland or other contiguous critical area shall have the buffer required for the stream type involved or the buffer that applies to the wetland or other critical area, whichever is greater.

2. Increased Stream Buffer. The City Manager or the City Manager's designee shall require increased buffer widths in accordance with the recommendations of a qualified biologist and the best available science on a case-by-case basis when a larger buffer is necessary to protect stream functions and values based on site-specific characteristics.

This determination shall be based on one or more of the following criteria:

a. A larger buffer is needed to protect other critical areas;

b. The buffer or adjacent upland has a slope greater than 30 percent or is susceptible to erosion and standard erosion-control measures will not prevent adverse impacts to the wetland.

c. In cases where additional buffers are not feasible, the City Manager or the City Manager's designee may require the applicant to undertake alternative on-site or off-site mitigation measures, including but not limited to a financial contribution to projects or programs which seek to improve environmental quality within the same watershed.

3. Pursuant to RCW 35.21.180, the King County, Washington "Surface Water Design Manual," including all subsequent revisions, is adopted by reference as the "Surface Water Design Manual for the City of Des Moines" in SMP 6.4.30.

Commented [JW107]: Changed from DMMC 16.10.350.

4. Building Setback Lines. A building setback line of 10 feet is required from the edge of any stream buffer. Minor structural intrusions into the area of the building setback line may be allowed if the City Manager or the City Manager's designee determines that such intrusions will not negatively impact the critical area.

6.4.13 Streams – Adjustments to dimensional requirements and other allowances

Commented [JW108]: Removed "reasonable use exception" because that is a DMMC critical area permitting procedure that does not apply to shoreline permitting procedures.

1. Adjustments to Dimensional Requirements.

a. Yard Reductions for Building One Single-Family Dwelling. The City Manager or the City Manager's designee may allow modification to the required front, rear, or side yard on the opposite of the stream. The reductions shall meet the following standards:

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i. The stream, stream buffer and required yard area opposite the stream equals more than 50 percent of the property dimension of the development site.

ii. A required side yard is reduced to five feet.

iii. A required front or rear yard is reduced to 10 feet.

2. Single-Family Dwelling. Development of one single-family dwelling within the buffer of a stream on a development site shall be approved by the City Manager or the City Manager's designee if the applicant demonstrates that:

a. The extent of development within the buffer is limited to that which is necessary to create a developable area which is no larger than 4,000 square feet;

b. The proposal utilizes to the maximum extent possible the best available construction, design, and development techniques which result in the least adverse impact on the environmentally critical area;

c. The proposal incorporates the development standards of SMP 6.4.12 and the Surface Water Design Manual to the maximum extent possible; and

d. The proposal is consistent with the purpose and intent of this SMP.

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6.4.14 Streams – Limited exceptions.

Commented [JW110]: Changed from "exemptions" to "exceptions" since "exemptions" have a specific and different meaning within the SMP.

Commented [JW111]: Changed from "exemptions" to "exceptions" since "exemptions" have a specific and different meaning within the SMP.

The City Manager or the City Manager's designee may allow exceptions from the provisions of this section based on the following provisions:

1. Stream Crossings. Stream crossings, whether for access or utility purposes, shall be avoided to the extent possible. The City Manager or the City Manager's designee may approve stream crossings only when he/she determines that there are no practicable or reasonable alternatives, and when the proposal complies with all of the following criteria:

a. Bridges are required for streams which support salmonids; and

b. All crossings using culverts shall use superspan or oversize culverts; and

c. All construction and installation crossings shall comply with timing restrictions set by federal and state permit processes, generally during summer low flow; and

d. Crossings shall not occur in salmonid spawning areas unless no other feasible crossing site exists; and

e. Bridge piers or abutments shall not be placed in either the floodway or between the ordinary high water marks unless no other feasible alternative placement exists; and

f. Crossings shall not diminish flood-carrying capacity; and

g. Crossings shall provide for maintenance of culverts, bridges, and utilities; and

h. Crossings shall serve multiple properties whenever possible; and

i. Crossings shall comply with all applicable local, state, and federal laws.

2. Stream Relocation and Dredging. Stream relocation and dredging are strongly discouraged and shall only occur to improve hydrologic, hydraulic, and fish and wildlife habitat functions. The City Manager or the City Manager's designee may approve stream relocation and

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dredging only when he/she determines that there are no practicable or reasonable alternatives, and when the proposal complies with all of the following criteria:

a. Relocation and dredging shall follow all applicable local, state, and federal laws and receive approvals from the agencies administering such laws;

b. Dredging of any stream shall follow the standards for dredging set forth in the Shoreline Master Program;

c. A mitigation plan with a contingency plan shall be prepared by a licensed professional pursuant to SMP 6.4.15 and shall include the following provisions:

i. Identification of long-term goals (25 years) and objectives for restoration of the stream channel and riparian areas;

ii. A three-year to five-year monitoring program to measure success of the restoration;

iii. Mitigation shall be designed to accommodate a 100-year storm event.

Commented [JW112]: Changed from DMMC 16.10.190.

3. Stream Channel, Stream Bank, Bluff, or Shore Stabilization. The City Manager or the City Manager's designee may approve stabilization of stream channels, stream banks, bluffs, or shorelines when he/she determines that the proposed stabilization complies with the Washington Department of Fish and Wildlife Integrated Streambank Protection Guidelines (2003) and the following criteria as applicable:

a. Naturally occurring movement threatens existing structures, public improvements, unique natural resources, or the only feasible access to property.

b. In the case of streams, stabilization results in improved fish and wildlife habitat, flood control, and improved water quality.

c. The preferred methodology for stream channel and bank stabilization is bioengineering or some combination of bioengineering and more traditional structural solutions. Bioengineering involves use of plant materials to stabilize eroding stream channels and banks.

d. The preferred methodology for bluff and shore stabilization is naturalistic shoreline protection measures such as creation of beaches that absorb and dissipate wave energy. Bluff and shore stabilization shall follow the standards of the Shoreline Master Program for the construction of any stabilization device.

e. Relocation and dredging shall follow all applicable local, state, and federal laws and receive approvals from the agencies administering such laws.

6.4.15 Streams – Mitigation requirements.

1. Compensatory mitigation for alterations to streams shall achieve equivalent or greater biologic functions.

a. On-Site and In-Kind for Streams. For streams, the applicant shall maintain or improve stream channel dimensions, including depth, length, and gradient; restore or improve native vegetation and fish and wildlife habitat; and create an equivalent or improved channel bed, biofiltration, and meandering. Unless otherwise specified by the City Manager or the City Manager's designee, such mitigation to replace and enhance stream

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elements such as pools, riffles, and spawning gravel shall be provided on a relative 2:1 basis.

b. Off-Site and In-Kind for Streams. When environmental information demonstrates that greater functions and values will be achieved, off-site compensation of greater size, functions, and values may be approved if the compensation project is within the same subwatershed as the wetland or stream to be altered. Unless otherwise specified by the City Manager or the City Manager's designee, such mitigation shall be provided pursuant to the ratios specified in this section.

c. Conditions Preceding Stream Alteration. In the case of the exceptions of SMP 6.4.12, the following conditions shall precede any stream alteration approved pursuant to this section:

i. A mitigation plan for the compensation project shall be submitted by the applicant and approved by the City Manager or the City Manager's designee;

ii. The compensation project shall be fully implemented following the requirements of the approved mitigation plan; and

iii. A final report shall be submitted following the specified growing seasons documenting that all requirements of a mitigation plan have been fully achieved. The City may postpone or limit development, require bonds pursuant to SMP 6.4.29, or use other appropriate techniques to ensure the success of the mitigation plan.

d. The City Manager or the City Manager's designee may postpone the issuance of development permits for one or more growing seasons until the success or viability of the approved mitigation measures can be demonstrated by the applicant.

e. Substitute Fees. In cases where the applicant demonstrates to the satisfaction of the City Manager or the City Manager's designee that a suitable compensation site does not exist, the City Manager or the City Manager's designee may allow the applicant to make a financial contribution to a water quality project or program performing critical areas enhancement, restoration, or mitigation. The project or program shall improve environmental quality within the same watershed as the altered stream. The amount of the fee shall be determined by the City Manager or the City Manager's designee and shall be equal to the cost of mitigating the impact of the stream alteration.

2. Mitigation Plans. All restoration and compensation projects shall follow a mitigation plan prepared by qualified scientists containing the following components:

a. Baseline Information. Quantitative data shall be collected and synthesized for both the impacted critical area and the proposed mitigation site, if different from the impacted critical area, following procedures set forth by the City Manager or the City Manager's designee.

b. Environmental Goals and Objectives. Goals and objectives describing the purposes of the mitigation measures shall be provided, including a description of site selection criteria, identification of target evaluation species and resource functions.

c. Performance Standards. Specific criteria for fulfilling environmental goals and objectives, and for beginning remedial action or contingency measures shall be provided,

Commented [JW113]: Changed from DMMC 16.10.160.

Commented [JW114]: Changed from DMMC 16.10.330.

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including water quality standards, species richness and diversity targets, habitat diversity indices, or other ecological, geological, or hydrological criteria.

d. Detailed Construction Plan. Written specifications and descriptions of mitigation techniques shall be provided, including the proposed construction sequence, accompanied by detailed site diagrams and blueprints that are an integral requirement of any development proposal.

e. Monitoring Program. A program outlining the approach for assessing a completed project shall be provided, including descriptions of proposed experimental and control site survey or sampling techniques. A protocol shall be included outlining how the monitoring data will be evaluated by agencies that are tracking the progress of the mitigation project. A report shall be submitted at least twice yearly documenting milestones, successes, problems, and contingency actions of the restoration or compensation project. The City Manager or the City Manager's designee shall require that the applicant monitor the compensation or restoration project for a minimum of five years.

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

g. Performance and Maintenance Securities. Securities ensuring fulfillment of the mitigation project, monitoring program, and any contingency measures shall be posted pursuant to SMP 6.4.29.

Commented [JW115]: Changed from DMMC 16.10.330.

3. Final Approval. The City Manager or the City Manager's designee shall grant final approval of a completed restoration or compensation project if the final report of the project mitigation plan satisfactorily documents that the area has achieved all requirements of SMP 6.4.26.

Commented [JW116]: Changed from DMMC 16.10.300.

6.4.16 Geologically hazardous areas – Development standards.

Development within all geologically hazardous areas shall comply with the following general performance requirements:

1. Alterations of geologically hazardous areas or associated buffers may only occur for activities that:
   a. Will not increase the threat of the geological hazard to adjacent properties beyond pre-development conditions;
   b. Will not adversely impact other critical areas;
   c. Are designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than pre-development conditions;
   d. Are designed and constructed in accordance with the Surface Water Design Manual; and
   e. Are certified as safe as designed and under anticipated conditions by a qualified engineer or geologist, licensed in the state of Washington.
2. Critical Facilities Prohibited. Critical facilities shall not be sited within geologically hazardous areas unless there is no other practical alternative.

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6.4.17 Ravine sidewalls and bluffs – Development standards.

Activities on ravine sidewalls and bluffs shall meet the general performance requirements of SMP 6.4.16 and the specific following requirements:

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1. Buffers. A 50-foot undisturbed buffer of native vegetation shall be established from the top, toe, and sides of all ravine sidewalls and bluffs.
2. Buffer Reduction. The City Manager or the City Manager's designee may approve a reduction in the width of the required buffer, to a minimum width of 10 feet, when special environmental studies are provided that demonstrate all of the following:
   a. A licensed engineer specializing in geotechnical analysis or a licensed engineering geologist, after review of the geologic conditions of the site, the proposed development plans, and all mitigation measures proposed or required, concludes in a written statement that the development proposal will result in minimal risk of soil instability; and
   b. Special mitigation measures regarding design, construction, and maintenance can reasonably be employed to minimize adverse environmental impacts associated with the proposal; and
   c. The proposal represents minimal disruption of existing native vegetation.
3. Additional Buffers. The City Manager or the City Manager's designee may require increased buffers if environmental studies indicate such increases are necessary to mitigate landslide, seismic and erosion hazards, or as otherwise necessary to protect the public health, safety, and welfare.
4. Building Setback Lines. A building setback line of 10 feet is required from the edge of any buffer of a ravine sidewall or bluff. Minor structural intrusions into the area of the building setback line may be allowed if the City Manager or the City Manager's designee determines that such intrusions will not negatively impact the critical area.
5. All buffers shall be measured from the top, toe, and sides of all ravine sidewalls or bluffs.

6.4.18 Hillsides of 15 percent slope and greater – Development standards – Disturbance limitations.

Development on hillsides shall comply with the general performance requirements of SMP 6.4.16 and the following requirements regarding disturbance limitations, development location, development design, construction techniques, and landscaping.

Commented [JW118]: Changed from DMMC 16.10.200.

1. Amount of Disturbance Allowed. The following chart sets forth the maximum slope disturbance allowed on a development site:

Slope	Amount of Slope Which Can Be Disturbed	Factor
0 – 15%	100%	1.00

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Slope	Amount of Slope Which Can Be Disturbed	Factor
15 – 25%	60%	0.60
25 – 40%	45%	0.45
40%+	30%	0.30

The overall amount of disturbance allowed on development sites which have any combination of the above slope categories shall be determined by the following formula:

(Square Footage of Site having 0–15% slopes) X 1.00 + (Square Footage of Site having 15–25% slopes) X 0.60 + (Square Footage of Site having 25–40% slopes) X 0.45 + (Square Footage of Site having 40%+ slopes) X 0.30 = Total Amount of Allowable Site Disturbance.

2. Development Location.

   a. Structures and improvements shall be clustered to retain as much open space as possible and the natural topographic character of the slope; and

   b. Structures and improvements shall conform to the natural contour of the slope, foundations shall be tiered to generally conform to the existing topography of the site; and

   c. Structures and improvements shall be located to preserve the most sensitive portion of the site and its natural landforms and vegetation.

3. Development Design.

   a. The footprint of buildings and other disturbed areas shall be minimized. The least number of buildings is desirable in order to consolidate the development; and

   b. Standard prepared building pads (slab on grade) resulting in grading more than 10 feet outside the building footprint area are prohibited; and

   c. Use of common access drives and utility corridors is required where feasible; and

   d. Impervious lot coverage shall be minimized. With the exception of detached single-family structures, understructure parking and multilevel structures shall be incorporated where feasible; and

   e. Roads, walkways, and parking areas shall be designed to parallel the natural contours of the steep slope hazard areas while maintaining consolidated areas of natural topography and vegetation. Access shall be located in the least environmentally critical area feasible; and

   f. Use of retaining walls which allow the maintenance of existing natural slope areas is preferred over graded artificial slopes.

4. Construction Techniques.

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a. Use of foundation walls as retaining walls is preferable to rock or concrete walls built separately and away from the building. Freestanding retaining devices are only permitted when they cannot be designed as structural elements of the building foundation; and

b. Use of pole-type construction which conforms to the existing topography is desirable where feasible; and

c. Structures shall be tiered to conform to existing topography and to minimize topographic modification. Piled deck support structures are preferred for parking or garages over fill-based construction types.

5. Landscaping. The disturbed area of a development site not used for buildings and other improvements shall be landscaped according to a landscape design which will achieve a minimum 40 percent coverage by the canopy of trees and shrubs within 10 years to provide habitat desirable to native western Washington birds. The trees and shrubs shall be a mix of shade, flowering, and coniferous and broad-leaf evergreens that are either native to the Puget Sound region or are valuable to western Washington birds. The Department of Wildlife "Plants for Wildlife in Western Washington" shall be used as a general guide.

a. Trees shall be the following size at time of planting and shall conform to the "American Standard for Nursery Stock":

i. Single-stem shade and flowering trees shall be a minimum one-inch caliper trunk as measured six inches above the ground.

ii. Multistem shade and flowering trees shall be a minimum height of eight feet as measured from the ground level to the average uppermost point of growth of the plant.

iii. Coniferous evergreen trees (Types 4, 5, and 6) shall be a minimum height of six feet as measured from the ground to the midpoint between the uppermost whorl and the tip of the leader. For species of trees without whorls, minimum height shall be measured to the uppermost side growth. The ratio of height to spread shall not be less than 5:3.

iv. Broad-leaf evergreen trees (Types 4 and 5) shall be a minimum height of four feet as measured from the ground level to where the main part of the plant ends, not to the tip of a thin shoot.

b. Shrubs shall be of the following size at time of planting and shall conform to the "American Standard for Nursery Stock":

i. Dwarf and semi-dwarf deciduous shrubs shall be a minimum height of two to two and one-half feet above grade, and either a No. 3 container size for container-grown plants, 10-inch diameter root ball for balled and burlapped plants, or 11-inch root spread for bare-root plants.

ii. Strong-growing deciduous shrubs shall be a minimum height of two to three feet above grade, and either a No. 3 container size for container-grown plants, 10-inch diameter root ball for balled and burlapped plants, or 11-inch root spread for bare-root plants.

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iii. Coniferous and broad-leaf evergreen shrubs (Types 1, 2, and 3) shall be a minimum height of two to two and one-half feet spread or height, and either a minimum No. 3 container size for container-grown plants or 12-inch diameter root ball for balled and burlapped plants.

6.4.19 Hillsides of 15 percent slope and greater limited waiver.

1. Limited Waiver of Hillside Disturbance Limitations. Any one or all of the disturbance limitation requirements of SMP 6.4.18 may be waived if the City Manager or the City Manager's designee determines that the application of such requirements is not feasible for developing one single-family dwelling on a development site and the proposal is consistent with the purpose and intent of this SMP.

6.4.20 Seismic hazard areas – Development standards.

Development in seismic hazard areas shall be in accordance with the standards for earthquake design and seismic motion as established in the Des Moines Buildings and Construction Code (Title 14 DMMC). Seismic hazard areas shall be altered only when the City Manager or the City Manager's designee concludes, based on environmental information, the following:

1. There is no actual hazard based on a lack of seismic activity in the past in the area of the development proposal, and a quantitative analysis of potential for seismic activity indicates no significant risk to the development proposal; or
2. The development proposal can be designed so that it will be as safe from any earthquake damage as a similar development not located in a seismic hazard area.

6.4.21 Erosion and landslide hazard areas – Development standards.

Development on hillsides containing or adjacent to erosion or landslide hazard areas shall meet the general performance requirements of SMP 6.4.16 and the following:

1. Buffer Requirement. A buffer shall be established from all edges of landslide hazard areas. The size of the buffer shall be determined by the City Manager or the City Manager's designee to eliminate or minimize the risk of property damage, death, or injury resulting from landslides caused in whole or part by the development, based upon review of and concurrence with a special environmental study prepared by a qualified professional.
   a. Minimum Buffer. The minimum buffer shall be equal to the height of the slope or 50 feet, whichever is greater;
   b. Increased Buffer. The buffer may be increased where the City Manager or the City Manager's designee determines a larger buffer is necessary to prevent risk of damage to proposed and existing development;
   c. Buffer Reduction. The buffer may be reduced to a minimum of 10 feet when a qualified professional demonstrates to the City Manager or the City Manager's designee's satisfaction that the reduction will adequately protect the proposed development, adjacent developments, and uses and the subject critical area;

Commented [JW119]: Removed "ravine sidewalls" and "bluffs" from the title because this section does not address them. Also removed "reasonable use exception" because that is a DMMC critical area permitting procedure that does not apply to shoreline permitting procedures.

Commented [JW120]: Changed from DMMC 16.10.220.

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2. Alterations. Alterations of an erosion or landslide hazard area and/or buffer may only occur for activities for which a hazards analysis is submitted and certifies that:
   a. The development will not increase surface water discharge or sedimentation to adjacent properties beyond pre-development conditions;
   b. The development will not decrease slope stability on adjacent properties; and
   c. Such alterations will not adversely impact other critical areas;
3. Design Standards. Development within an erosion or landslide hazard area and/or buffer shall be designed to meet the following basic requirements unless it can be demonstrated that an alternative design that deviates from one or more of these standards provides greater long-term slope stability while meeting all other provisions of this SMP. The requirement for long-term slope stability shall exclude designs that require regular and periodic maintenance to maintain their level of function. The basic development design standards are:
   a. The proposed development shall not decrease the factor of safety for landslide occurrences below the limits of 1.5 for static conditions and 1.2 for dynamic conditions. Analysis of dynamic conditions shall be based on a minimum horizontal acceleration as established by the current version of the Uniform Building Code;
   b. Structures and improvements shall be clustered to avoid geologically hazardous areas and other critical areas;
   c. Structures and improvements shall minimize alterations to the natural contour of the slope, and foundations shall be tiered where possible to conform to existing topography;
   d. Structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation;
   e. The proposed development shall not result in greater risk or a need for increased buffers on neighboring properties;
   f. The use of retaining walls that allow the maintenance of existing natural slope area is preferred over graded artificial slopes; and
   g. Development shall be designed to minimize impervious lot coverage;
4. Vegetation Retention. Unless otherwise provided or as part of an approved alteration, removal of vegetation from an erosion or landslide hazard area or related buffer shall be prohibited;
5. Seasonal Restriction. Land clearing, grading, or filling shall be limited to the period between April 1st and October 1st; provided, that the City may extend or shorten the dry season on a case-by-case basis depending on actual weather conditions;
6. Utility Lines and Pipes. Utility lines and pipes shall be permitted in erosion and landslide hazard areas only when the applicant demonstrates that no other practical alternative is available. The line or pipe shall be located aboveground and properly anchored and/or designed so that it will continue to function in the event of an underlying slide. Storm water conveyance shall be allowed only through a high-density polyethylene pipe with fuse-welded joints, or similar product that is technically equal or superior;

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7. Point Discharges. Point discharges from surface water facilities and roof drains onto or upstream from an erosion or landslide hazard area shall be prohibited except as follows:
   a. Conveyed via continuous storm pipe downslope to a point where there are no erosion hazard areas downstream from the discharge;
   b. Discharged at flow durations matching predeveloped conditions, with adequate energy dissipation, into existing channels that previously conveyed storm water runoff in the predeveloped state; or
   c. Dispersed discharge upslope of the steep slope onto a low-gradient undisturbed buffer demonstrated to be adequate to infiltrate all surface and storm water runoff, and where it can be demonstrated that such discharge will not increase the saturation of the slope;
8. Subdivisions. The division of land in landslide hazard areas and associated buffers is subject to the following:
   a. Land that is located wholly within a landslide hazard area or its buffer may not be subdivided. Land that is located partially within a landslide hazard area or its buffer may be divided; provided, that each resulting lot has sufficient buildable area outside of, and will not affect, the landslide hazard area or its buffer;
   b. Access roads and utilities may be permitted within the landslide hazard area and associated buffers if the City determines that no other feasible alternative exists; and
9. Prohibited Development. On-site sewage disposal systems, including drain fields, shall be prohibited within erosion and landslide hazard areas and related buffers.

6.4.22 Critical aquifer recharge areas – Development standards – Buffers and disturbance limitations.

If an aquifer recharge area is located on or adjacent to a development site, all activities on the site shall be in compliance with the following requirements:

1. Development Standards – General Performance Requirements.
   a. Activities may only be permitted in a critical aquifer recharge area if the applicant can show that the proposed activity will not cause contaminants to enter the aquifer and that the proposed activity will not adversely affect the recharging of the aquifer.
   b. The proposed activity shall comply with the water source protection requirements and recommendations of the U.S. Environmental Protection Agency, Washington State Department of Health, and the Seattle-King County Health Department.
   c. The proposed activity shall be designed and constructed in accordance with the Surface Water Design Manual.
2. Development Standards – Specific Uses.
   a. Storage Tanks. All storage tanks proposed to be located in a critical aquifer recharge area shall comply with local building code requirements and shall conform to the following requirements:

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i. Underground Tanks. All new underground storage facilities proposed for use in the storage of hazardous substances or hazardous wastes shall be designed and constructed so as to:

A. Prevent releases due to corrosion or structural failure for the operational life of the tank;

B. Be protected against corrosion, constructed of noncorrosive material, steel clad with a noncorrosive material, or designed to include a secondary containment system to prevent the release or threatened release of any stored substances; and

C. Use material in the construction or lining of the tank that is compatible with the substance to be stored.

ii. Aboveground Tanks. All new aboveground storage facilities proposed for use in the storage of hazardous substances or hazardous wastes shall be designed and constructed so as to:

A. Not allow the release of a hazardous substance to the ground, ground waters, or surface waters;

B. Have a primary containment area enclosing or underlying the tank or part thereof; and

C. Provide either a secondary containment system built into the tank structure or a secondary containment dike system built outside the tank for all tanks.

b. Vehicle Repair and Servicing.

i. Vehicle repair and servicing shall be conducted over impermeable pads and within a covered structure capable of withstanding normally expected weather conditions. Chemicals used in the process of vehicle repair and servicing shall be stored in a manner that protects them from weather and provides containment should leaks occur.

ii. No dry wells shall be allowed in critical aquifer recharge areas on sites used for vehicle repair and servicing. Dry wells existing on the site prior to facility establishment shall be abandoned using techniques approved by the state Department of Ecology prior to commencement of the proposed activity.

c. Residential Use of Pesticides and Nutrients. Application of household pesticides, herbicides, and fertilizers shall not exceed times and rates specified on the packaging.

d. Use of Reclaimed Water for Surface Percolation or Direct Recharge. Water reuse projects for reclaimed water shall be in accordance with the adopted water or sewer comprehensive plans that have been approved by the state Departments of Ecology and Health.

i. Use of reclaimed water for surface percolation shall meet the ground water recharge criteria given in RCW 90.46.010(10) and 90.46.080(1). The state Department of Ecology may establish additional discharge limits in accordance with RCW 90.46.080(2).

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ii. Direct injection shall be in accordance with the standards developed by authority of RCW 90.46.042.

e. State and Federal Regulations. The uses listed below shall be conditioned as necessary to protect critical aquifer recharge areas in accordance with the applicable state and federal regulations.

Activity	Statute – Regulation – Guidance
Aboveground Storage Tanks	WAC 173-303-640
Automobile Washers	Chapter 173-216 WAC, Best Management Practices for Vehicle and Equipment Discharges (Washington Department of Ecology WQ-R-95-56)
Below Ground Storage Tanks	Chapter 173-360 WAC
Chemical Treatment Storage and Disposal Facilities	WAC 173-303-182
Hazardous Waste Generator (Boat Repair Shops, Biological Research Facility, Dry Cleaners, Furniture Stripping, Motor Vehicle Service Garages, Photographic Processing, Printing and Publishing Shops, Etc.)	Chapter 173-303 WAC
Injection Wells	Federal 40 CFR Parts 144 and 146, chapter 173-218WAC
On-Site Sewage Systems (Large Scale)	Chapter 173-240 WAC
On-Site Sewage Systems (Less Than 14,500 Gal./Day)	Chapter 246-272 WAC, Local Health Ordinances
Pesticide Storage and Use	Chapter 15.54 RCW, chapter 17.21 RCW
Solid Waste Handling and Recycling Facilities	Chapter 173-304 WAC
Wastewater Application to Land Surface	Chapters 173-216 and 173-200 WAC, Washington State Department of Ecology Land Application Guidelines, Best Management Practices for Irrigated Agriculture

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3. Prohibited Uses and Activities – Critical Aquifer Recharge Areas. The following activities and uses are prohibited in critical aquifer recharge areas:
   a. Landfills. Landfills, including hazardous waste, municipal solid waste, special waste, wood waste, and inert and demolition waste landfills;
   b. Underground Injection Wells. Class I, III, and IV wells and subclasses 5F01, 5D03, 5F04, 5W09, 5W10, 5W11, 5W31, 5X13, 5X14, 5X15, 5W20, 5X28, and 5N24 of Class V wells;
   c. Mining.
      i. Metals and hard rock mining; and
      ii. Sand and gravel mining, prohibited from critical aquifer recharge areas determined to be highly susceptible or vulnerable;
   d. Wood Treatment Facilities. Wood treatment facilities that allow any portion of the treatment process to occur over permeable surfaces (both natural and manmade);
   e. Storage, Processing, or Disposal of Radioactive Substances. Facilities that store, process, or dispose of radioactive substances; and
   f. Other Prohibited Uses or Activities.
      i. Activities that would significantly reduce the recharge to aquifers currently or potentially used as a potable water source;
      ii. Activities that would significantly reduce the recharge to aquifers that are a source of significant base flow to a regulated stream; and
      iii. Activities that are not connected to an available sanitary sewer system, are prohibited from critical aquifer recharge areas associated with sole source aquifers.

6.4.23 Fish and wildlife habitat conservation areas – Development standards – Buffers and disturbance limitations.

1. Buffers and Disturbance Limitations. If a fish and/or wildlife habitat conservation area is located on or adjacent to a development site, the following provisions shall apply:
   a. A habitat conservation area may be altered only if the proposed alteration of the habitat or the mitigation proposed does not degrade the quantitative and qualitative functions and values of the habitat.
   b. The City Manager or the City Manager's designee may require native vegetation buffer areas when special environmental studies indicate the necessity for such buffers in order to achieve the purposes identified in SMP 6.4.1.
   c. In cases where the City Manager or the City Manager's designee determines that adequate buffers are not feasible, and that the impact upon the habitat conservation area may be severe, the City Manager or the City Manager's designee may prohibit development of the subject habitat conservation and buffer area.
   d. In cases where the City Manager or the City Manager's designee determines that adequate buffers are not feasible, but that the environmental impacts associated with the

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proposal would not be so severe as to warrant a prohibition of all development, the applicant shall undertake alternative on-site or off-site mitigation measures specified by the City Manager or the City Manager's designee. Alternative mitigation measures include, but are not limited to, a financial contribution to projects or programs which seek to improve environmental quality within the same fish and wildlife habitat conservation area. Such financial contribution shall be of an amount sufficient to fund mitigation measures commensurate with the adverse impact being mitigated.

e. Any approval of alterations or impacts to a habitat conservation area shall be supported by the best available science such as the Washington Department of Fish and Wildlife management recommendations for priority habitats and species.

f. When appropriate due to the type of habitat or species present or the project area conditions, the City Manager or the City Manager's designee may require a critical areas study. If the habitat conservation area is also classified as a stream, lake, pond or a wetland, then the stream, lake, pond or wetland protection standards shall apply and habitat management shall be addressed as part of the stream, lake, pond or wetland review; provided, that the City may impose additional requirements when necessary to provide for protection of the habitat conservation areas consistent with this SMP. The City Manager or the City Manager's designee may require the following site and proposal related information with the critical areas study:

i. Identification of any federal or state listed endangered, threatened, sensitive or candidate species that have a primary association with habitat on or adjacent to the project area, and an assessment of potential project impacts to the species;

ii. A discussion of any federal or state management recommendations, including Washington Department of Fish and Wildlife habitat management recommendations, that have been developed for species or habitats located on or adjacent to the project area;

iii. A discussion of any ongoing management practices that will protect habitat after the project site has been developed, including any proposed monitoring, maintenance, and adaptive management programs; and

iv. When appropriate due to the type of habitat or species present or the project area conditions, the City Manager or the City Manager's designee may also require the habitat management plan to include an evaluation by the state Department of Fish and Wildlife, local Native American Indian tribe, or other qualified professional regarding the applicant's analysis and the effectiveness of any proposed mitigating measures or programs, to include any recommendations as appropriate.

2. Specific Habitats. If a use, activity or development is within, adjacent to, or likely to affect one or more specific fish and/or wildlife habitat conservation areas, the following provisions shall apply:

a. Endangered, Threatened, and Sensitive Species.

i. No development shall be allowed within a habitat conservation area or buffer with which state or federally endangered, threatened, or sensitive species have a primary association, except that which is provided for by a management plan established by

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the Washington Department of Fish and Wildlife or applicable state or federal agency.

ii. Whenever activities are proposed adjacent to a habitat conservation area with which state or federally endangered, threatened, or sensitive species have a primary association, such area shall be protected through the application of protection measures in accordance with a special environmental study prepared by a qualified professional and approved by the City. Approval for alteration of land adjacent to the habitat conservation area or its buffer shall not occur prior to consultation with the Washington Department of Fish and Wildlife for animal species, the Washington State Department of Natural Resources for plant species, and other appropriate federal or state agencies.

iii. Bald eagle habitat shall be protected pursuant to the Washington State Bald Eagle Protection Rules (WAC 232-12-292).

b. Anadromous Fish.

i. All activities, uses, and alterations proposed to be located in water bodies used by anadromous fish or in areas that affect such water bodies shall give special consideration to the preservation and enhancement of anadromous fish habitat, including, but not limited to, adhering to the following standards:

A. Activities shall be timed to occur only during the allowable work window as designated by the Washington Department of Fish and Wildlife for the applicable species;

B. An alternative alignment or location for the activity is not feasible;

C. The activity is designed so that it will not degrade the functions or values of the fish habitat or other critical areas;

D. Shoreline erosion control measures shall be designed to use bioengineering methods or soft armoring techniques, according to an approved special environmental study; and

E. Any impacts to the functions or values of the habitat conservation area are mitigated in accordance with an approved special environmental study.

ii. Structures that prevent the migration of salmonids shall not be allowed in the portion of water bodies currently or historically used by anadromous fish. Fish bypass facilities shall be provided to prevent fish migrating downstream from being trapped or harmed.

iii. Filling of aquatic habitats, when authorized by the City Shoreline Master Program, shall not adversely impact anadromous fish or habitat or shall mitigate any unavoidable impacts and shall only be allowed for a water-dependent use.

6.4.24 Area of special flood hazard – Development standards – Buffers and disturbance limitations.

If an area of special flood hazard is located on or adjacent to a development site, all activities on the site shall be in compliance with the following requirements and restrictions:

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1. The provisions of chapters 11.08 and 16.15 DMMC.
2. Prior to approval of any development proposal within an area of special flood hazard, special environmental studies shall demonstrate that the proposed development and related construction activities will not result in an increase in the frequency, severity, or magnitude of flooding on the development site or on properties within the same hydrologic system.

6.4.25 Limited density transfer.

1. Density and Floor Area Calculation. The calculation of potential dwelling units in residential development proposals and allowable floor area in commercial development proposals shall be determined by the ratio of developable area to undevelopable critical area of the development site. The following formula for density and floor area calculations is designed to provide compensation for the preservation of critical areas, flexibility in design, and consistent treatment of different types of development proposals. The formula shall apply to all residential zones (including PUD) and all commercial zones.
2. Formulas. The maximum number of dwelling units (DU) for a site which contains undevelopable critical areas is equal to:

   [(Developable Area) divided by (Minimum Lot Area/DU)] + [((Undevelopable Area) divided by (Minimum Lot Area/DU)) (Development Factor)] = Maximum Number of Dwelling Units

   The maximum amount of commercial floor area for a site which contains undevelopable critical areas is equal to:

   [(Maximum Permitted Floor Area/Lot Area) (Developable Area)] + [(Maximum Permitted Floor Area/Lot Area) (Undevelopable Area) (Development Factor)] = Maximum Amount of Floor Area.

   Developable critical areas shall receive full credit towards calculating the number of dwelling units or floor area.

~~1.~~3. Development Factor. The development factor is a number to be used in calculating the number of dwelling units or the maximum allowable floor area for a site which contains undevelopable critical areas. The development factor is derived from the following table:

Commented [JW123]: Corrected formula by adding a parenthesis. This was discussed and added to the Title 16/18 clean up spreadsheet.

Undevelopable Environmentally Critical Area as Percentage of Site (Percent)	Development Factor
1 – 10	0.30
11 – 20	0.27
21 – 30	0.24
31 – 40	0.21

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Undevelopable Environmentally Critical Area as Percentage of Site (Percent)	Development Factor
41 – 50	0.18
51 – 60	0.15
61 – 70	0.12
71 – 80	0.09
81 – 90	0.06
91 – 99	0.03

6.4.26 Allowed activities within critical areas and critical areas buffers.

Exceptions to the development restrictions and standards set forth in SMP 6.4.6 through 6.4.24 shall be permitted pursuant to the following provisions:

1. Emergencies. The City Manager or the City Manager's designee may approve improvements that are necessary to respond to emergencies that threaten the public health and safety, or public development proposals when he/she determines that no reasonable alternative exists and the benefit outweighs the loss. Emergencies shall be verified by a licensed engineer.
2. Drainage Facilities.
   a. Wetlands, streams and their buffers shall not be altered for use as any private drainage facility. Drainage facilities near these areas shall satisfy all requirements of the Surface Water Design Manual.
   b. Wetlands, streams and their buffers may be altered for use as a public drainage facility; provided, that all requirements of the Surface Water Design Manual and all other local, state, and federal laws are satisfied, and so long as increased and multiple natural resource functions are achievable and the benefits outweigh the lost resource. The City Manager or the City Manager's designee may approve drainage facilities in a wetland or stream only where he/she determines that long-term impacts are minimal or where there are no practicable or reasonable alternatives and mitigation is provided.
   c. Ravine sidewalls and bluffs and their buffers shall not be altered for use as any private facility, but may be altered for a public facility if all requirements of the Surface Water Design Manual are satisfied. Drainage facilities on hillsides shall satisfy all requirements of the Surface Water Design Manual.
3. Trails and Trail-Related Facilities. Public and private trails and trail-related facilities, such as picnic tables, benches, interpretive centers and signs, viewing platforms, and campsites, shall be allowed, but use of impervious surface shall be minimized. Trails and trail-related facilities shall be avoided within wetlands and streams. The City Manager or the City

Commented [JW124]: Removed the term "development exception" because it is a DMMC critical area permitting procedure that does not apply to shoreline permitting procedures.

Commented [JW125]: Changed from DMMC 16.10.100 through 16.10.280.

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Manager's designee may approve such trails and facilities only when he/she determines that there are no practicable or reasonable upland alternatives. Trail planning, construction, and maintenance shall adhere to the following additional criteria:

a. Trails and related facilities shall, to the extent feasible, be placed on existing levees, road grades, utility corridors, or any other previously disturbed areas; and

b. Trails and related facilities shall be planned to minimize removal of trees, shrubs, snags, and important wildlife habitat; and

c. Trail construction and maintenance shall follow the U.S. Forest Service "Trails Management Handbook" (FSH 2309.18, June 1987) and "Standard Specifications for Construction of Trails" (EM-7720-102, June 1984) or as amended; and

d. Viewing platforms, interpretive centers, campsites, picnic areas, benches, and access to them shall be designed and located to minimize disturbance; and

e. Trails and related facilities shall provide water quality protection measures to ensure that runoff from them does not directly discharge to wetlands or streams; and

f. Within the buffer, trails and trail-related facilities shall be aligned and constructed to minimize disturbance to wetland and stream functions and values.

4. Utility and Roadway Construction. Construction of utilities and roadways shall be avoided within critical areas. The City Manager or the City Manager's designee may approve utilities and/or roadways in critical areas and their buffers only when he/she determines that there are not practicable or reasonable alternatives. Utility and roadway corridor alignment, construction, restoration, and maintenance shall adhere to the following additional criteria:

a. Corridor alignment shall follow a path of least impact to the functions of critical areas;

b. Corridor construction and maintenance shall maintain and protect the hydrologic and hydraulic functions of wetlands and streams and the stability of ravine sidewalls and bluffs;

c. Corridors shall be fully revegetated with native vegetation upon completion of construction pursuant to the development standards set forth in SMP 6.4.6 through 6.4.24;

d. Any pipeline crossing of a stream channel shall employ one or more of the following measures:

i. Jacked or bored under active stream channel starting outside the ordinary high water mark;

ii. Suspension over the active channel; or

iii. Restoration of functions and values of natural stream channel features where channel disturbance is unavoidable;

e. Any required construction or maintenance roads shall be the minimum width necessary to gain access. Roads shall be maintained without use of herbicides and, when specified by the City Manager or the City Manager's designee, shall be available for use as a trail. Roads necessary for construction or maintenance purposes shall closely approximate the location of the utility and/or primary roadway to minimize disturbance; and

Commented [JW126]: Changed from DMMC 16.10.100 through 16.10.280.

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f. Within a required buffer area, utilities and roadways shall be aligned and constructed to minimize disturbance to critical area functions and values.

5. Time Limitation. Approval of activities automatically expires and is void if the applicant fails to file for a building permit or other necessary development permit within one year of the effective date of the permit approval, unless either:

a. The applicant has received an extension for the permit pursuant to this section; or

b. The permit approval provides for a greater time period.

6. Time Extension. The City Manager or the City Manager's designee may extend a development extension, not to exceed one year, if:

a. Unforeseen circumstances or conditions necessitate the extension of the permit; and

b. Termination of the permit would result in unreasonable hardship to the applicant, and the applicant is not responsible for the delay; and

c. The extension of the permit will not cause adverse impacts to critical areas.

Commented [JW127]: Removed the term "development exception" because it is a DMMC critical area permitting procedure that does not apply to shoreline permitting procedures.

6.4.27 Unauthorized critical area alterations and enforcement.

1. When a critical area or its buffer has been altered in violation of this SMP, all ongoing development work shall stop and the critical area shall be restored. The City Manager or the City Manager's designee shall have the authority to issue a stop work order to cease all ongoing development work, and order restoration, rehabilitation, or replacement measures at the owner's or other responsible party's expense to compensate for violation of provisions of this SMP. All restoration shall follow an approved restoration plan pursuant to the provisions of this SMP and meet the following minimum performance standards:

2. Minimum Performance Standards for Restoration.

a. For alterations to critical aquifer recharge areas, frequently flooded areas, wetlands, and habitat conservation areas, the following minimum performance standards shall be met for the restoration of a critical area; provided, that if the violator can demonstrate that greater functional and habitat values can be obtained, these standards may be modified:

i. The historic structural and functional values shall be restored, including water quality and habitat functions;

ii. The historic soil types and configuration shall be replicated;

iii. The critical area and buffers shall be replanted with native vegetation that replicates the vegetation historically found on the site in species types, sizes, and densities. The historic functions and values should be replicated at the location of the alteration; and

iv. Information demonstrating compliance with the requirements of this SMP shall be submitted to the City Manager or the City Manager's designee.

b. For alterations to flood and geological hazards, the following minimum performance standards shall be met for the restoration of a critical area; provided, that if the violator can demonstrate that greater safety can be obtained, these standards may be modified:

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i. The hazard shall be reduced to a level equal to, or less than, the predevelopment hazard;

ii. Any risk of personal injury resulting from the alteration shall be eliminated or minimized; and

iii. The hazard area and buffers shall be replanted with native vegetation sufficient to minimize the hazard.

3. Site Investigations. The City Manager or the City Manager's designee is authorized to make site inspections and take such actions as are necessary to enforce this section. The City Manager or the City Manager's designee shall present proper credentials and make a reasonable effort to contact any property owner before entering onto private property.

6.4.28 Tracts and easements.

1. Environmentally Critical Area Tracts or Easements. Separate environmentally critical area tracts or easements shall be used to protect critical areas that are to remain undeveloped pursuant to this section. The tracts or easements shall impose upon all present and future owners and occupiers of land subject to the tracts or easements the obligation, enforceable on behalf of the public by the City, to leave the areas of the tracts or easements permanently undisturbed. In a single-family residential zone, any lots containing a critical area easement shall be of a dimension of not less than 4,000 square feet, exclusive of such easement.

Commented [JW128]: Changed from 5,000 SF to be consistent with DMMC 16.10.130(2)(a) and 16.10.170(2)(a). This is listed as a code cleanup item on the Title 18/16 code cleanup spreadsheet.

2. Permanent Marking. Where determined by the City Manager or the City Manager's designee to reduce the likelihood of future intrusion into a critical area, the common boundary between a separate environmentally critical area tract or easement and the adjacent land shall be permanently identified and marked with permanent wood or metal signs on wood or metal posts. Sign location and wording shall be approved by the City Manager or the City Manager's designee during review of the development proposal and are exempt from the sign code, chapter 18.200 DMMC. The size, coloring, lettering, spacing, placement, and height above the ground surface shall be as established by the City Manager or the City Manager's designee.

6.4.29 Securities and enforcement.

1. Performance Securities. The City Manager or the City Manager's designee shall require the applicant of a development proposal to post a cash performance bond or other acceptable security to guarantee that the applicant will properly construct all structures and improvements required by this SMP. The security shall guarantee that the work and materials used in construction are free from defects. All securities shall be on a form approved by the director. Until written release of the security, the principal or surety may not be terminated or canceled. The director shall release the security upon determining that all structures and improvements have been satisfactorily constructed and upon the posting by the applicant of a maintenance security if one is required.

2. Maintenance Securities. The director shall require the applicant to post a cash maintenance bond or other acceptable security guaranteeing that structures and improvements required by this SMP satisfactorily perform for a minimum of two years, or, in the case of required mitigation improvements, up to five years after they have been constructed and approved. All

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securities shall be on a form approved by the City Manager or the City Manager's designee. Until written release of the security, the principal or surety may not be terminated or canceled. The director shall release the security upon determining that performance standards established for evaluating the effectiveness and success of the structures and improvements have been satisfactorily met. The performance standards shall be agreed upon by the City Manager or the City Manager's designee and the applicant and contained in the mitigation plan developed and approved during the review process.

3. Renewable Bonds. Any bonds required by this section may be in the form of one-year bonds to be renewed as appropriate.

6.4.30 Surface Water Design Manual.

Commented [JW129]: Removed the section before this one (16.10.340 Environmentally critical area mitigation fund) that is specifically for "enforcing and implementing environmentally critical area codes" and "chapter" 16.10 DMMC.

Pursuant to RCW 35.21.180, the King County, Washington "Surface Water Design Manual," including all subsequent revisions, is adopted by reference as the "Surface Water Design Manual for the City of Des Moines." A current copy of the King County, Washington "Surface Water Design Manual" adopted by reference in this section shall be maintained on file in the office of the City Clerk and shall be available for public inspection.

6.4.31 Surface water contamination – Determination.

1. The City shall determine if surface water pollution has occurred or is occurring by:
   a. Utilizing the federal Environmental Protection Agency quality criteria for freshwater bodies and the state Department of Ecology water quality standards for surface waters of the state listed in chapter 173-201A WAC; or
   b. Requesting investigations by other agencies having regulatory authority regarding surface water pollution.
2. When the City or the investigating agency determines surface water quality pollution has occurred, notice shall be provided to the alleged source of pollutants identifying the specific surface water quality problem and requesting that the problem be remedied.
3. The City shall pursue City, state and/or federal enforcement actions when any surface water pollution is verified.

6.4.32 Surface water contamination – Compliance required – Penalty.

1. No person shall defile, pollute, or contaminate:
   a. The surface waters of the City;
   b. A stream running through or into the corporate limits of the City; or
   c. A stream running through or into the corporate limits of the City, and for a distance of five miles beyond the corporate limits of the City.
2. A violation of or failure to comply with this section is a class 1 civil infraction.
3. Each day upon which a violation occurs constitutes a separate violation.

6.4.33 Surface water contamination – Penalty not exclusive remedy.

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The City reserves the right to pursue other appropriate civil actions under state and federal law, including a citizen suit under the federal Clean Water Act.

Commented [JW130]: The last 2 sections of chapter 16.10 DMMC were removed because they conflict with the SMP (16.10.390 and 400).

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CHAPTER 7 – ADMINISTRATIVE PROCEDURES

7.1 Shoreline Permit Requirements

The SMA (RCW 90.58.140(3)) requires that local governments establish a program for the administration and enforcement of the shoreline permit system. All proposed uses and development occurring within shoreline jurisdiction ~~must~~ shall conform to chapter 90.58 RCW, the Shoreline Management Act, and this Program. The purpose of this chapter is to describe that program and provide guidance for obtaining development permits for activities in the City's shoreline jurisdiction. References to the "Shoreline Administrator" means the City Manager or his or her designee in the ~~Planning, Building, and Public Works~~Community Development Department, responsible for administering the Des Moines SMP.

Within the City of Des Moines all non-exempt substantial development undertaken on shorelines of the state, except for the specific activities listed below, ~~must~~ shall first obtain a Shoreline Substantial Development, Shoreline Conditional Use, or Variance Permit from the City. Substantial development means any development of which the total cost or fair market value exceeds ~~five thousand seven hundred and eighteen dollars~~seven thousand and forty seven dollars ($7,047~~$5,718~~) or as may be adjusted for inflation under the provisions of RCW 90.58.030 or any development which materially interferes with the normal public use of the water or shorelines of the state, except those exempted developments set forth in WAC 173-27-040.

Commented [JW1]: Required by Ecology checklist 2017 (a).

CLARIFICATION OF ACTIONS THAT DO NOT REQUIRE SHORELINE PERMITTING PURSUANT TO STATE LAW

Requirements to obtain a Substantial Development Permit, Conditional Use Permit, Variance, Statement of Exemption, or other review to implement the Shoreline Management Act do not apply to the following:

1. Remedial actions. Pursuant to RCW 90.58.355 and WAC 173-27-044, any person conducting a remedial action at a facility pursuant to a consent decree, order, or agreed order issued pursuant to chapter 70.105D RCW, or to the Department of Ecology when it conducts a remedial action under chapter 70.105D RCW.

2. Boatyard improvements to meet NPDES permit requirements. Pursuant to RCW 90.58.355 and WAC 173-27-044, any person installing site improvements for storm water treatment in an existing boatyard facility to meet requirements of a national pollutant discharge elimination system storm water general permit.

3. WSDOT facility maintenance and safety improvements. Pursuant to RCW 90.58.356 and WAC 173-27-044, Washington State Department of Transportation projects and activities meeting the conditions of RCW 90.58.356 are not required to obtain a substantial development permit, conditional use permit, variance, letter of exemption, or other local review.

4. Projects consistent with an environmental excellence program agreement pursuant to RCW 90.58.045.

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~~1.~~5. Projects authorized through the Energy Facility Site Evaluation Council process, pursuant to chapter 80.50 RCW.

The shoreline activities that are exempt from ~~permit~~ Shoreline Substantial Development Permit requirements, but require local review and potentially other permits, are listed in the ~~first~~ next section of this chapter. The following sections describe the process for obtaining a Shoreline Substantial Development, Shoreline Conditional Use, or Variance Permit. For each permit type the criteria, application requirements and decision process are presented. Figure 7-1 provides an overview of the City's Shoreline Permit process.

The City's shoreline administrative procedures should be consistent with all provisions, criteria, application requirements, public notice requirements, and local or state review procedures set forth in WAC 173-27, Shoreline Management Permit and Enforcement Procedures. In the event of any inconsistencies between this SMP and WAC 173-27, the WAC shall govern.

MOVED THESE PARAGRAPHS TO GROUP IT WITH REST OF THE SECTION

~~7.2 Exemptions from Substantial Development Permit Requirements~~

~~Certain development activities are exempt from the requirement to secure a Shoreline Substantial Development Permit. State law requires that exemptions be construed narrowly. Exemption from the Substantial Development Permit process does not constitute exemption from compliance with the policies and use regulations of the SMA (RCW 90.58); the provisions of this master program; or other applicable city, state or federal permit requirements.~~

~~A development activity or use that is listed as a conditional use pursuant to this master program or is an unclassified use, must obtain a Conditional Use Permit even if the development is exempt from a Shoreline Substantial Development Permit. When a development or use is proposed that does not comply with the bulk, dimensional and performance standards of the master program, such development or use can only be authorized by approval of a variance, consistent with WAC 173-27-040(1)(b).~~

Commented [JW2]: Required by Ecology checklist 2017 (c). Language taken from Ecology's Checklist Guidance document.

Commented [JW3]: Clarifying difference between SMP 7.2 exemptions and the exceptions from Ecology checklist 2017 (c)

Commented [JW4]: Moved 4 pages forward. This section was always difficult to read because of the 4 page separation.

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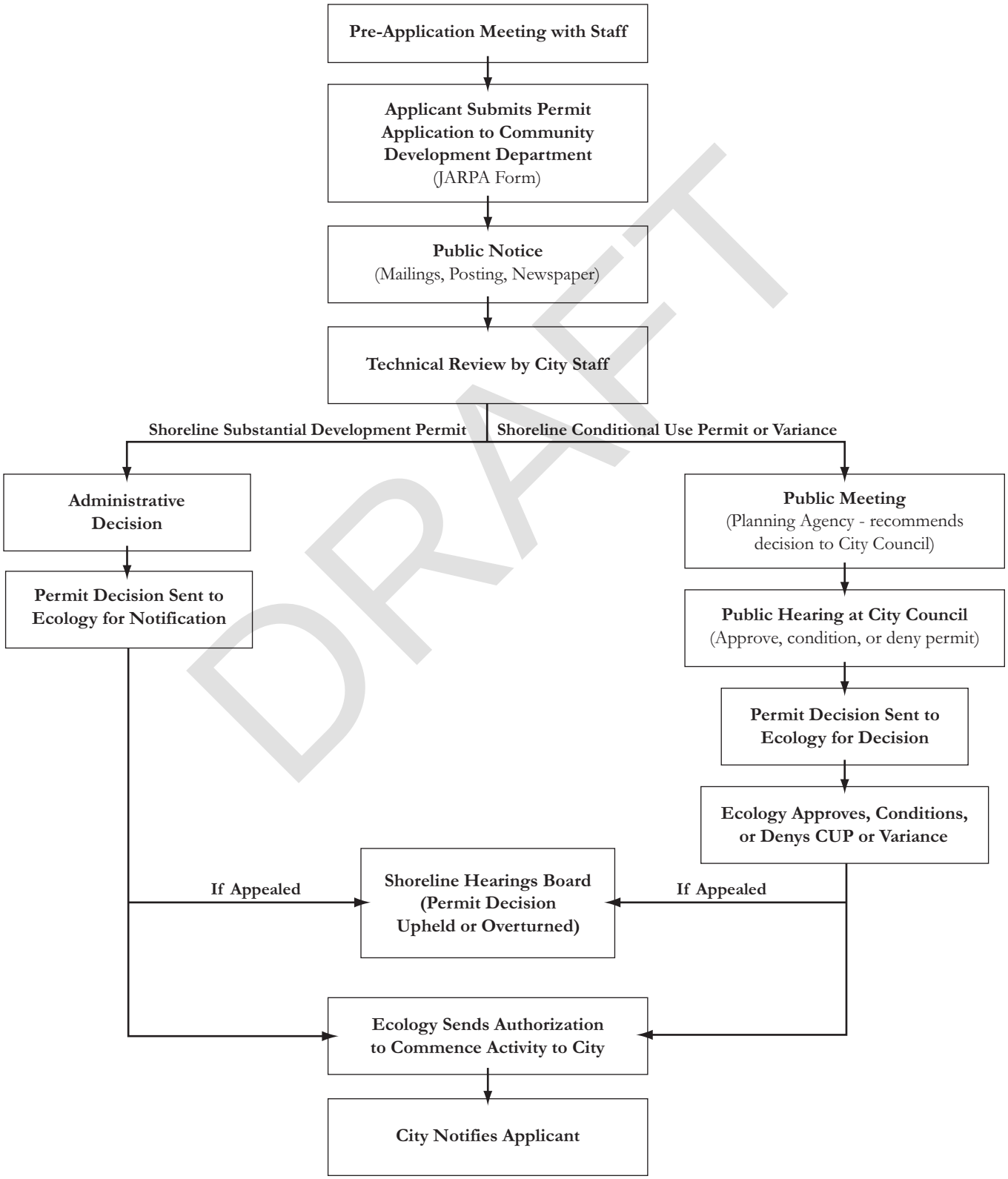
FIGURE 7-1

Shoreline Permit Process

(For Substantial Development Permit (SDP);
Shoreline Conditional Use Permit (CUP); or Shoreline Variance)



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7.2 Exemptions from Substantial Development Permit Requirements

Certain development activities are exempt from the requirement to secure a Shoreline Substantial Development Permit (SSDP). State law requires that exemptions be construed narrowly. Exemption from the Substantial Development Permit process does not constitute exemption from compliance with the policies and use regulations of the SMA (RCW 90.58); the provisions of this master program; or other applicable city, state or federal permit requirements.

A development activity or use that is listed as a conditional use pursuant to this master program or is an unclassified use, shall obtain a Conditional Use Permit (CUP) even if the development is exempt from a Shoreline Substantial Development Permit. When a development or use is proposed that does not comply with the bulk, dimensional and performance standards of the master program, such development or use can only be authorized by approval of a variance, consistent with WAC 173-27-040(1)(b).

Commented [JW5]: Moved from page 85. This was always difficult to read because of the 4 page separation.

If any part of a proposed development is not eligible for exemption, then a substantial development permit is required for the entire proposed development project, per WAC 173-27-040(d). Local government may attach conditions to the approval of exempted developments and/or uses as necessary to ~~assure~~ ensure consistency of the project with the SMA and Des Moines SMP, per WAC 173-27-040(e).

The following shall not require Substantial Development Permits:

1. Any development of which the total cost or fair market value, whichever is higher, does not exceed ~~five thousand seven hundred and eighteen~~seven thousand and forty seven dollars (~~$5,718~~$7,047), if such development does not materially interfere with the normal public use of the water or shorelines of the state and does not result in a net loss of ecological functions. For purposes of determining whether or not a permit is required, the total cost or fair market value shall be based on the value of development that is occurring on shorelines of the state as defined in RCW 90.58.030~~ (2)(e)~~. The total cost or fair market value of the development shall include the fair market value of any donated, contributed or found labor, equipment or materials.

Commented [JW6]: Required by Ecology checklist 2017 (a)

2. Normal maintenance or repair of existing structures or developments, including damage by accident, fire or elements. “Normal maintenance” includes those usual acts to prevent a decline, lapse, or cessation from a lawfully established condition. "Normal repair" means to restore a development to a state comparable to its original condition, including, but not limited to its size, shape, configuration, location and external appearance, except where repair ~~involves total replacement which is not common practice or~~ causes substantial adverse effects to the shoreline resource or environment. -Normal repair must occur within a reasonable period after decay or partial destruction.

   If decay or partial destruction occurs to an extent of fifty percent (50%) or greater of the replacement cost of the original development, repair or replacement must be addressed within one year to be exempt from a Shoreline Substantial Development Permit. In rare instances total replacement of a structure or development may be authorized as repair where such replacement is the common method of repair for the type of structure or development. Total replacement shall be supported by a statement from the Building Official that complete

Commented [JW7]: Clarifying the purpose of this section.

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replacement is common practice and the replacement does not cause substantial adverse effects to shoreline resources or the environment.

~~Reconstruction conditions for nonconforming structures, including single-family residences, destroyed by catastrophe or disaster such as fire, explosion, earthquake, flooding, etc., may be reconstructed as existed prior to the catastrophic event, excluding reconstruction necessitated by a criminal act involving the property owner, with building height and shoreline setbacks not to exceed pre-existing setbacks and restrictions. Furthermore, when any new building is proposed in addition to reconstruction, the new building area shall conform to the provisions of this Program and conform to the requirements of Des Moines Municipal Building Code and this Program. Replacement may include total replacement of buildings and structures when supported by a statement from the Building Official that complete replacement is common practice and the replacement does not cause substantial adverse effects to shoreline resources or the environment.~~

~~2.~~3. Construction of a normal protective bulkhead common to single family residences. A "normal protective" bulkhead includes those structural and non-structural developments installed at or new, and parallel to the ordinary high water mark for the sole purpose of protecting an existing single family residence and appurtenant structures from loss or damage by erosion. A normal protective bulkhead is not exempt if constructed for the purpose of creating dry land. When a vertical or near vertical wall is being constructed or reconstructed, not more than one cubic yard of fill per one foot of wall may be used as backfill. When an existing bulkhead is being repaired by construction of a vertical wall fronting the existing wall, it shall be constructed no further waterward of the existing bulkhead than is necessary for construction of new footings. When a bulkhead has deteriorated such that an ordinary high water mark has been established by the presence and action of water landward of the bulkhead then the replacement bulkhead must be located at or near the actual ordinary high water mark. Alternative bank stabilization projects may also be considered a normal protective bulkhead when any structural elements are consistent with the above requirements and when the project has been approved by the Department of Fish and Wildlife.

~~3.~~4. Emergency construction necessary to protect property from damage by the elements. An "emergency" is an unanticipated and imminent threat to public health, safety, or the environment which requires immediate action within a time too short to allow full compliance with this chapter. Emergency construction does not include development of new permanent protective structures where none previously existed, except where new protective structures are deemed by the administrator to be the appropriate means to address the emergency situation. Upon abatement of the emergency situation the new structure shall be removed or any permit be obtained which would have been required, absent an emergency, pursuant to chapter 90.58 RCW, or the Des Moines SMP. All emergency construction shall be consistent with the policies of chapter 90.58 RCW and the Des Moines SMP. As a general matter, flooding or other seasonal events that can be anticipated and may occur but that are not imminent are not an emergency.

~~4.~~5. Construction or modification, by or under the authority of the Coast Guard, of navigational aids such as channel markers and anchor buoys.

~~5.~~6. Construction on shorelands by an owner, lessee or contract purchaser of a single family residence or an addition to a single family residence for his/her own use or for the use of his/her family, which residence does not exceed a height of thirty (30) feet above average

Commented [JW8]: This section has been cleaned up and the language regarding replacement is now more in line with WAC 173-27-040(2)(b).

Commented [JW9]: WAC 173-27-040(2)(b) does not include this language. This is addressed in the nonconforming section.

Commented [JW10]: This section moved above and edited.

Commented [JW11]: For clarification purposes.

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grade level and which meets all requirements of the state agencies having jurisdiction and the City. "Single-family residence" means a detached dwelling designed for and occupied by one family, including those structures and developments within a contiguous ownership which are a normal appurtenance. An "appurtenance" is necessarily connected to the use and enjoyment of a single-family residence and is located landward of the ordinary high water mark and the perimeter of a wetland. On a statewide basis, normal appurtenances include a garage; deck; driveway; utilities; ~~and~~ fences~~.~~; and grading which does not exceed two hundred fifty cubic yards and which does not involve placement of fill in any wetland or waterward of the ordinary high water mark. ~~Construction of a single-family residence may include grading which does not exceed two hundred fifty (250) cubic yards, and which does not involve placement of fill in any wetland or waterward of the ordinary high water mark.~~ In addition, Des Moines considers patios, two (2) sheds; one (1) cabana; one (1) hot tub; and one (1) accessory living quarters to be normal appurtenances within the City. Construction authorized under this exemption shall be located landward of the ordinary high water mark.

~~6.~~7. The marking of property lines or corners on state owned lands, when such marking does not significantly interfere with normal public use of the surface of the water.

~~7. Any project with a certification from the Governor pursuant to chapter 80.50 RCW.~~

8. Site exploration and investigation activities that are prerequisite to preparation of an application for development authorization under this chapter, if:
   a. The activity does not interfere with the normal public use of the surface waters;
   b. The activity will have no significant adverse impact on the environment including but not limited to fish, wildlife, fish or wildlife habitat, water quality, and aesthetic values;
   c. The activity does not involve the installation of any structure, and upon completion of the activity the vegetation and land configuration of the site are restored to conditions existing before the activity;
   d. A private entity seeking development authorization under this section first posts a performance bond or provides other evidence of financial responsibility to ensure that the site is restored to preexisting conditions; and
   e. The activity is not subject to the permit requirements of RCW 90.58.550 (oil or natural gas exploration in marine waters).
9. The process of removing or controlling aquatic noxious weeds, as defined in RCW 17.26.020, through the use of an herbicide or other treatment methods applicable to weed control that are recommended by a final environmental impact statement published by the Department of Agriculture or Ecology jointly with other state agencies under chapter 43.21C RCW.
10. Watershed restoration projects as defined herein. The Shoreline Administrator shall review watershed restoration projects for consistency with the this master program in an expeditious manner and shall issue a decision along with any conditions within forty-five days of receiving all materials necessary to review the request for exemption from the applicant. No fee may be charged for accepting and processing requests for exemption for watershed restoration projects as used in this section.

Commented [JW12]: Replaced with 173-27-040 language. Ecology noted that the 250 cubic yards is considered an appurtenance and not a limit on the construction of an SFR.

Commented [JW13]: Associated with the 11/8/18 Council Environment Committee approved regulatory change.

Commented [JW14]: See Ecology checklist 2017 (c) and guidance. These projects are actually exempt from all shoreline permitting and review. This language has been edited (per checklist guidance) and moved to SMP 7.1.

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"Watershed restoration project" means a public or private project authorized by the sponsor of a watershed restoration plan that implements the plan or a part of the plan and consists of one or more of the following activities:

a. A project that involves less than ten miles of streamreach, in which less than twenty-five cubic yards of sand, gravel, or soil is removed, imported, disturbed or discharged, and in which no existing vegetation is removed except as minimally necessary to facilitate additional plantings;

b. A project for the restoration of an eroded or unstable stream bank that employs the principles of bioengineering, including limited use of rock as a stabilization only at the toe of the bank, and with primary emphasis on using native vegetation to control the erosive forces of flowing water; or

c. A project primarily designed to improve fish and wildlife habitat, remove or reduce impediments to migration of fish, or enhance the fishery resource available for use by all of the citizens of the state, provided that any structure, other than a bridge or culvert or instream habitat enhancement structure associated with the project, is less than two hundred square feet in floor area and is located above the ordinary high water mark of the stream.

"Watershed restoration plan" means a plan, developed or sponsored by the department of fish and wildlife, the department of ecology, the department of natural resources, the department of transportation, a federally recognized Indian tribe acting within and pursuant to its authority, a city, a county, or a conservation district that provides a general program and implementation measures or actions for the preservation, restoration, re-creation, or enhancement of the natural resources, character, and ecology of a stream, stream segment, drainage area, or watershed for which agency and public review has been conducted pursuant to chapter 43.21C RCW, the State Environmental Policy Act.

11. A public or private project, the primary purpose of which is to improve fish or wildlife habitat or fish passage, when all of the following apply:

a. The project has been approved in writing by the Washington State Department of Fish and Wildlife (WDFW) as necessary for the improvement of the habitat or passage and appropriately designed and sited to accomplish the intended purpose;

b. The project has received hydraulic project approval by WDFW pursuant to chapter 77-55 RCW; and

c. The Shoreline Administrator has determined that the project is consistent with this master program.

12. The external or internal retrofitting of an existing structure with the exclusive purpose of compliance with the Americans with Disabilities Act of 1990 (42 U.S.C. Sec. 12101 et seq.) or to otherwise provide physical access to the structure by individuals with disabilities.

Commented [JW15]: Required by Ecology checklist 2016 (a).

~~13. Hazardous substance remedial actions. The procedural requirements of chapter 90.58 RCW shall not apply to a project for which a consent decree, order or agreed order has been issued pursuant to chapter 70.105D RCW or to Ecology when it conducts a remedial action under chapter 70.105D RCW. Ecology shall, in consultation with the City, assure that such projects~~

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~~comply with the substantive requirements of chapter 90.58 RCW, chapter 173-26 WAC and this master program.~~

Commented [JW16]: See Ecology checklist 2017 (c) and guidance. These projects are actually exempt from all shoreline permitting and review. This language has been edited (per checklist guidance) and moved to SMP 7.1.

7.2.1 Statement of Exemption

Applicants for other permits or approvals ~~must~~ shall obtain a written "Statement of Exemption" verifying the proposed development is not subject to securing a Shoreline Substantial Development Permit. According to State guidelines the burden of proof that a development or use is exempt from the permit process is on the applicant. If any part of the development is not eligible for exemption, then a Substantial Development Permit is required for the entire proposed development.

The statement of exemption offers an applicant an itemization of SMP and other requirements applicable to the proposed project in conjunction with other permit processes. In the case of development subject to a building permit, but exempt from the shoreline permit process, the Building Official or other permit authorizing official, through consultation with the Shoreline Administrator, shall attach shoreline management terms and conditions to Building Permits and other permit approvals pursuant to RCW 90.58.140. For example, the approval of a Building Permit for a single-family residence can be conditioned on the basis of SMP policy and use regulations.

Where shoreline development proposals are subject to review, approval, and permitting by a federal or state agency, the Shoreline Administrator shall prepare a statement of exemption, addressed to the applicant, the federal or state permitting agency, and Ecology.

The letter shall indicate the specific exemption provision from WAC 173-27-040 that is being applied to the development and provide a summary of the analysis demonstrating consistency of the project with the Des Moines SMP and the SMA.

7.3 Shoreline Substantial Development Permit Procedures

7.3.1 General Provisions

Development means a use consisting of the construction or exterior alteration of structures; dredging; drilling; dumping; filling; removal of any sand, gravel, or minerals; bulkheading; driving of piling; placing of obstructions; or any project of a permanent or temporary nature which interferes with the normal public use of the surface of the waters overlying lands subject to this chapter at any state of water level. Development does not include dismantling or removing structures if there is no other associated development or re-development. Substantial development means any development of which the total cost or fair market value exceeds ~~five thousand seven hundred and eighteen~~seven thousand and forty seven dollars ($7,047~~$5,718~~) or any development which materially-interferes with the normal public use of the water or shorelines of the state, except those exempted developments set forth in the preceding section, consistent with WAC 173-27-040.

Commented [JW17]: Required by Ecology checklist 2017 (b).

Commented [JW18]: Required by Ecology checklist (a).

Issuance of a Shoreline Substantial Development Permit is classified as Type II land use action, an administrative decision made by the Shoreline Administrator. Public notice of application is required and Ecology is notified of the permit decision. Shoreline Substantial Development

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Permits do not require public hearings or City Council decisions. Each permit for a substantial development, conditional use or variance issued by local government shall contain a provision that construction pursuant to the permit shall not begin and is not authorized until twenty-one days from the date of filing as defined in RCW 90.58.140(6) and WAC 173-27-1301, or until all review proceedings initiated within twenty-one days from the date of such filing have been terminated; except as provided in the SMA (RCW90.58.140(5)(~~-~~b)) for Shoreline Hearings board appeals.

7.3.2 Criteria

A Substantial Development Permit shall be granted by the Shoreline Administrator only when the development proposed is consistent with the following:

1. Goals, objectives, policies and use regulations of the Des Moines SMP;
2. Des Moines Comprehensive Plan and Municipal Code; and
3. The policies, guidelines, and regulations of the SMA (RCW 90.58, WAC 173-26 and WAC 173-27).

The Shoreline Administrator may attach conditions to the approval of permits as necessary to ~~assure~~ ensure consistency of the proposal with the above criteria.

7.3.3 Application

The owner of the subject property or the authorized agent(s) of the owner is encouraged to have a pre-application meeting with the Shoreline Administrator and/or his or her staff to determine the need for a Substantial Development Permit. If needed, the applicant may apply for a Substantial Development Permit by submitting to the Shoreline Administrator a Shoreline Substantial Development Permit application using the Joint Aquatic Resource Permit Application (JARPA) form provided by the City and accompanied by applicable fees, and any other information requested by the Shoreline Administrator. A completed application for a Substantial Development Permit shall, at a minimum, contain the following information and diagrams:

1. Completed JARPA form.
2. Completed intake form from WAC 173-27-990, Appendix A – Shoreline Management Act Permit Data Sheet and Transmittal Letter, included at the end of this chapter.
3. The name, address and phone number of the applicant. The applicant should be the owner of the property or the primary proponent of the project and not the representative of the owner or primary proponent.
4. The name, address and phone number of the applicant's representative if other than the applicant.
5. The name, address and phone number of the property owner, if other than the applicant.
6. Location of the property. This shall, at a minimum, include the property address and identification of the section, township and range to the nearest quarter, quarter section or

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latitude and longitude to the nearest minute. All applications for projects located in open water areas away from land shall provide a longitude and latitude location.

7. Identification of the name of the shoreline (water body) that the site of the proposal is associated with. This should be the water body from which jurisdiction of the act over the project is derived (e.g. Puget Sound).
8. A general description of the proposed project that includes the proposed use or uses and the activities necessary to accomplish the project.
9. A general description of the property as it now exists including its physical characteristics and improvements and structures.
10. A general description of the vicinity of the proposed project including identification of the adjacent uses, structures and improvements, intensity of development and physical characteristics.
11. A site development plan consisting of maps and elevation drawings, drawn to an appropriate scale to depict clearly all required information, photographs and text which shall include:
    a. The boundary of the parcel(s) of land upon which the development is proposed.
    b. The ordinary high water mark of all water bodies located adjacent to or within the boundary of the project. This may be an approximate location provided, that for any development where a determination of consistency with the applicable regulations requires a precise location of the ordinary high water mark the mark shall be located precisely and the biological and hydrological basis for the location as indicated on the plans shall be included in the development plan. Where the ordinary high water mark is neither adjacent to or within the boundary of the project, the plan shall indicate the distance and direction to the nearest ordinary high water mark of a shoreline.
    c. Existing and proposed land contours. The contours shall be at intervals sufficient to accurately determine the existing character of the property and the extent of proposed change to the land that is necessary for the development. Areas within the boundary that will not be altered by the development may be indicated as such and contours approximated for that area.
    d. A delineation of all wetland areas that will be altered or used as a part of the development.
    e. A general indication of the character of vegetation found on the site.
    f. The dimensions and locations of all existing and proposed structures and improvements including but not limited to; buildings, paved or graveled areas, roads, utilities, septic tanks and drainfields, material stockpiles or surcharge, and stormwater management facilities.
    g. Where applicable, a landscaping plan for the project.
    h. Where applicable, plans for development of areas on or off the site as mitigation for impacts associated with the proposed project shall be included and contain information consistent with the requirements of this section.
    i. Quantity, source and composition of any fill material that is placed on the site whether temporary or permanent.

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j. Quantity, composition and destination of any excavated or dredged material.

k. A vicinity map showing the relationship of the property and proposed development or use to roads, utilities, existing developments and uses on adjacent properties.

l. Where applicable, a depiction of the impacts to views from existing residential uses and public areas.

12. Copy of completed SEPA environmental checklist, declaration of non-significance or environmental impact statement, if required. Note that if the environmental review has not occurred prior to application for a Shoreline Permit, the time period for application review may be extended.

13. The names, addresses and legal description for each parcel of property within three hundred (300) feet of the exterior boundary of the subject property as shown by the records of the King County Assessor.

14. Other information, plans, data and diagrams as required by the Shoreline Administrator.

7.3.4 Public Notice

Applicants are responsible for the following public notices as part of any Substantial Development Permit application. If compliance with SEPA is required for the proposal, public notice requirements under SEPA may be satisfied concurrently as part of the Substantial Development Permit process.

1. Notification by regular mail no less than twenty (20) days prior to issuance of permit to all owners of property lying within 300 feet of the exterior boundaries of where substantial development is taking place or activities supporting the proposed improvement. The form of such notice shall be provided by the City and the content shall be approved by the Shoreline Administrator prior to mailing.
2. Posting of a thirty-two (32) square foot sign at the subject property, presenting the following information:
   a. Type of permit applied for;
   b. Brief description of proposed use;
   c. Address of subject property;
   d. Applicant's name;
3. Publication of public notice in a newspaper with local distribution ~~no less than once a week for two consecutive weeks, with the last publication date~~ no less than thirty (30) days prior to issuance of permit.
4. An affidavit that the notice has been properly published, posted and deposited in the U. S. mail pursuant to the above requirements shall be submitted to the Shoreline Administrator at least thirty (30) days in advance of the issuance of permit.

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7.3.5 Technical Review Shoreline Administrator

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For all submitted applications for Shoreline Substantial Development Permits, the Shoreline Administrator shall make a decision on the permit application based on the information provided in the application.

Upon a finding of compliance with the criteria listed in this section, the Shoreline Administrator shall issue the permit, or issue the permit with conditions. Should the Shoreline Administrator find that any application does not substantially comply with the criteria listed in this section, they may deny such application or attach any terms or conditions that are deemed suitable and reasonable given the purpose and objectives of this SMP.

7.3.6 Washington State Department of Ecology Notification

After all local permit administrative appeals or reconsideration periods are complete and the Shoreline Substantial Development Permit documents are amended to incorporate any resulting changes, the Shoreline Administrator shall mail the permit using return receipt requested mail to the Department of Ecology regional office and the Office of the Attorney General. Conditional Use Permits and/or Variances required for the project shall be mailed simultaneously with any Substantial Development Permits for the project. The Shoreline Administrator shall mail the following:~~Ecology shall be notified within eight (8) days of any Shoreline Substantial Development Permit decisions made by the Shoreline Administrator. The Shoreline Administrator shall file the following with the Department of Ecology and the Attorney General:~~

Commented [JW20]: Required by Ecology checklist 2017 (d).

1. A copy of the complete application pursuant to WAC 173-27-180;
2. Findings and conclusions that establish the basis for the decision including but not limited to identification of shoreline environment designation, applicable master program policies and regulations and the consistency of the project with review criteria for Substantial Development Permits;
3. The final decision of the local government;
4. The permit intake form (Appendix A to WAC 173-27-990, included at the end of this chapter);
5. Where applicable, local government shall also file the applicable documents required by chapter 43.21C RCW, the State Environmental Policy Act, or in lieu thereof, a statement summarizing the actions and dates of such actions taken under chapter 43.21C RCW; and
6. Affidavit of public notice.
7. When the project has been modified in the course of the local review process, plans or text shall be provided to the department that clearly indicate the final approved plan.
8. “Date of filing” of a local government final decision involving approval or denial of a substantial development permit is the date of actual receipt by the department of a local government's final decision on the permit. The department shall provide a written notice to the local government and the applicant of the "date of filing."

7.3.7 Appeals

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All appeals of any final permit decision are governed by the procedures established in RCW 90.58.180, RCW 90.58.140(6), and Chapter 461-08 WAC~~WAC 481-03~~, the rules and procedures of the Shorelines Hearing Board. All appeals of any final permit decision shall be made to the Shoreline Hearings Board within twenty-one (21) days after the date of filing~~-~~, which is defined below:

1. For projects that only require a Substantial Development Permit, the date that Ecology receives the City of Des Moines' decision.
2. For a Conditional Use Permit (CUP) or Variance, the date that Ecology's decision on the CUP or Variance is transmitted to the applicant and the City of Des Moines.
3. For Substantial Development Permits simultaneously mailed with a CUP or Variance to Ecology, the date that Ecology's decision on the CUP or Variance is transmitted to the applicant and the City of Des Moines.~~All appeals of any final permit decision must be made to the Shorelines Hearing Board within twenty-one (21) days after the City's final decision concerning the substantial development permit or formal approval to revisions of the permit.~~

Commented [JW21]: WAC 481-03 no longer exists.

Commented [JW22]: Required by Ecology checklist 2017 (d).

7.3.8 Revisions to Shoreline Substantial Development Permits

A permit revision is required whenever an applicant proposes substantive changes to the design, terms or conditions of a project from that which was approved in the permit. When a revision of a Shoreline Substantial Development is sought, the applicant shall submit detailed plans and text describing the proposed changes in the permit and demonstrating compliance with the following minimum standards pursuant to WAC 173-27-100.

If the proposed changes are determined by the Shoreline Administrator to be within the scope and intent of the original permit, and are consistent with the SMA (RCW 90.58), the Guidelines in WAC 173-26, and this SMP, the revision shall be approved. "Within the scope and intent of the original permit" means the following:

1. No additional over water construction will be involved.
2. Lot coverage and height may be increased a maximum of ten percent (10%) from the provisions of the original permit: Provided, that revisions involving new structures not shown on the original site plan shall require a new permit, and: Provided, further that any revisions authorized under this subsection shall not exceed height, lot coverage, setback or any other requirements of this SMP for the area in which the project is located.
3. Landscaping may be added to a project without necessitating an application for a new permit. Provided, that the landscaping is consistent with conditions (if any) attached to the original permit and is consistent with this SMP for the area in which the project is located.
4. The use authorized pursuant to the original permit is not changed.
5. No additional adverse environmental impact will be caused by the project revision.

If the revision or the sum of the revision and any previously approved revisions violate the terms of one or more of the provisions itemized above, the applicant shall apply for a new Shoreline Substantial Development in the manner provided herein.

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The revised permit shall become effective immediately. Within eight (8) days of the date of final action the revised site plan, text and the approved revision shall be submitted to Ecology and the Attorney General for the completion of their files. A notice of revision approval shall be forwarded to persons who have notified the Shoreline Administrator of their desire to receive a copy of the action on a permit. Formal revisions to permits are subject to the twenty-one (21) day appeal process described above.

7.4 Shoreline Conditional Use Permit Procedures

7.4.1 General Provisions

The purpose of a Shoreline Conditional Use Permit is to allow case-by-case review of uses which may have a greater potential for impacts without project-specific conditions, while providing flexibility in varying the application of the use regulations of this SMP in a manner consistent with the policies of RCW 90.58.020. A Shoreline Conditional Use Permit is classified as a Type IV land use decision, requiring administrative, planning agency, and city council review and approval. In authorizing a Shoreline Conditional Use Permit, special conditions may be attached to the permit by the City Council or Ecology to prevent undesirable effects of the proposed use. Ecology is the final reviewing authority for Shoreline Conditional Use Permits pursuant to WAC 173-27.

7.4.2 Unclassified Uses

Uses that are not classified or set forth herein may only be authorized as conditional uses provided the applicant can demonstrate that the criteria set forth for conditional uses are met. Unclassified uses approved as conditional uses should also remain consistent with the policies of RCW 90.58.020 and should not produce substantial adverse effects on the shoreline environment.

7.4.3 Criteria

Pursuant to WAC 173-27-160, the criteria below shall constitute the minimum criteria for review and approval of a Shoreline Conditional Use Permit. Uses classified as conditional uses, and not uses prohibited by the regulations of this SMP, may be authorized provided that the applicant can demonstrate all of the following:

1. That the proposed use will be consistent with the policies of RCW 90.58.020, the policies of this SMP, the City of Des Moines Comprehensive Plan and other applicable plans, programs and/or regulations;
2. That the proposed use will not interfere with the normal public use of public shorelines;
3. That the proposed use of the site and design of the project will be compatible with other permitted uses within the area and with uses planned for the area under the comprehensive plan and shoreline master program;
4. That the proposed use will cause no significant adverse effects to the shoreline, will not result in a net loss of ecological functions, and will not be incompatible with the environment designation or zoning classification in which it is to be located;
5. That the public interest suffers no substantial detrimental effect; and

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6. That the proposed use is in the best interest of the public's health, safety, morals or welfare.
7. That consideration of cumulative impacts of additional requests for like actions in the area. For example, if conditional use permits were granted for other developments in the area where similar circumstances exist, the total of the conditional uses shall also remain consistent with the policies of RCW 90.58.020 and shall not produce substantial adverse effects to the shoreline environment. Other uses which are not classified or set forth in this Program may be authorized as conditional uses provided the applicant can demonstrate consistency with the requirements of this section and the requirements for conditional uses contained in this Program. Uses which are specifically prohibited by this Program may not be authorized pursuant to this section.

The Shoreline Administrator may attach conditions to the approval of permits as necessary to ~~assure~~ ensure consistency of the proposal with the above criteria.

7.4.4 Application

The owner of the subject property or the authorized agent(s) of the owner is encouraged to have a pre-application meeting with the Shoreline Administrator and/or his or her staff to determine the need for a Shoreline Conditional Use Permit. If needed, the applicant may apply for a permit by submitting to the Shoreline Administrator a Shoreline Conditional Use Permit application using the Joint Aquatic Resource Permit Application (JARPA) form provided by the City and accompanied by applicable fees, and any other information requested by the Shoreline Administrator. A completed application for a Shoreline Conditional Use Permit shall, at a minimum, contain the following information and diagrams:

1. Completed JARPA form.
2. Completed intake form from WAC 173-27-990, Appendix A – Shoreline Management Act Permit Data Sheet and Transmittal Letter, included at the end of this chapter.
3. The name, address and phone number of the applicant. The applicant should be the owner of the property or the primary proponent of the project and not the representative of the owner or primary proponent.
4. The name, address and phone number of the applicant's representative if other than the applicant.
5. The name, address and phone number of the property owner, if other than the applicant.
6. Location of the property. This shall, at a minimum, include the property address and identification of the section, township and range to the nearest quarter, quarter section or latitude and longitude to the nearest minute. All applications for projects located in open water areas away from land shall provide a longitude and latitude location.
7. Identification of the name of the shoreline (water body) that the site of the proposal is associated with. This should be the water body from which jurisdiction of the act over the project is derived (e.g., Puget Sound).
8. A general description of the proposed project that includes the proposed use or uses and the activities necessary to accomplish the project.

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9. A general description of the property as it now exists including its physical characteristics and improvements and structures.
10. A general description of the vicinity of the proposed project including identification of the adjacent uses, structures and improvements, intensity of development and physical characteristics.
11. A site development plan consisting of maps and elevation drawings, drawn to an appropriate scale to depict clearly all required information, photographs and text which shall include:
    a. The boundary of the parcel(s) of land upon which the development is proposed.
    b. The ordinary high water mark of all water bodies located adjacent to or within the boundary of the project. This may be an approximate location provided, that for any development where a determination of consistency with the applicable regulations requires a precise location of the ordinary high water mark the mark shall be located precisely and the biological and hydrological basis for the location as indicated on the plans shall be included in the development plan. Where the ordinary high water mark is neither adjacent to or within the boundary of the project, the plan shall indicate the distance and direction to the nearest ordinary high water mark of a shoreline.
    c. Existing and proposed land contours. The contours shall be at intervals sufficient to accurately determine the existing character of the property and the extent of proposed change to the land that is necessary for the development. Areas within the boundary that will not be altered by the development may be indicated as such and contours approximated for that area.
    d. A delineation of all wetland areas that will be altered or used as a part of the development.
    e. A general indication of the character of vegetation found on the site.
    f. The dimensions and locations of all existing and proposed structures and improvements including but not limited to; buildings, paved or graveled areas, roads, utilities, septic tanks and drainfields, material stockpiles or surcharge, and stormwater management facilities.
    g. Where applicable, a landscaping plan for the project.
    h. Where applicable, plans for development of areas on or off the site as mitigation for impacts associated with the proposed project shall be included and contain information consistent with the requirements of this section.
    i. Quantity, source and composition of any fill material that is placed on the site whether temporary or permanent.
    j. Quantity, composition and destination of any excavated or dredged material.
    k. A vicinity map showing the relationship of the property and proposed development or use to roads, utilities, existing developments and uses on adjacent properties.
    l. Where applicable, a depiction of the impacts to views from existing residential uses and public areas.

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12. Copy of completed environmental checklist, declaration of non-significance or environmental impact statement as is appropriate. Note that if the environmental review has not occurred prior to application for a Shoreline Permit, the time period for application review may be extended.
13. The names, addresses and legal description for each parcel of property within three hundred (300) feet of the exterior boundary of the subject property as shown by the records of the King County Assessor.
14. Other information, plans, data and diagrams as required by the Shoreline Administrator. All site plans and maps shall be drawn to scale and shall clearly indicate scale on the lower right-hand corner and be attached to the application.

7.4.5 Public Notice

Applicants are responsible for the following public notices as part of any Shoreline Conditional Use application. Public notice requirements under SEPA may be satisfied concurrently as part of the Shoreline Conditional Use Permit process.

1. Notification by regular mail no less than twenty (20) days prior to the public hearing to all owners of property lying within 300 feet of the exterior boundaries of the property being developed or supporting the proposed improvement. The form of such notice shall be provided by the City and the content shall be approved by the Shoreline Administrator prior to mailing.
2. Posting of a thirty-two (32) square foot sign at the subject property, presenting the following information:
   a. Type of permit applied for;
   b. Brief description of proposed use;
   c. Address of subject property;
   d. Applicant's name;
   e. Public hearing time and date; and
   f. Invitation to express views on proposal at the public hearing or in writing to the Shoreline Administrator one week prior to the public hearing date (date to be specified).
3. Publication of public notice in a newspaper with local distribution ~~no less than once a week for two consecutive weeks, with the last publication date~~ no less than thirty (30) days prior to the public hearing date.
4. An affidavit that the notice has been properly published, posted and deposited in the U. S. mail pursuant to the, above requirements shall be submitted to the Shoreline Administrator at least thirty (30) days in advance of the public hearing.

Commented [DL23]: Not required by the State.

7.4.6 Public Meeting

A public meeting shall be held by the Planning Agency regarding an application for a Shoreline Conditional Use Permit. The public meeting should be held at the earliest possible date after the

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thirty (30) day public comment period has ended. The Planning Agency shall determine the application's compliance with the review criteria for Conditional Uses in addition to any other criteria to be met specified by the Municipal Code or statute, and recommend the permit application be forwarded to City Council for review and approval.

7.4.7 Public Hearing and City Council Decision

The City Council shall be the decision-making authority for any Shoreline Conditional Use Permit.

The City Council shall hold a public hearing on each proposed Shoreline Conditional Use Permit application. No later than the first regular public meeting after receiving the recommendation of the planning agency permit application, the City Council shall set by motion the date of the hearing. The Shoreline Administrator shall prepare and distribute public notice of the hearing as set forth in DMMC ~~17.40.070~~18.20.130.

The City Council shall determine the application's compliance with the review criteria for Shoreline Conditional Use Permits, in addition to any other criteria to be met specified by the Municipal Code or statute. Upon a finding of compliance with these criteria the City Council shall instruct the Shoreline Administrator to prepare written findings of fact and statement of reasons in support of the determination and to forward the recommendation to Ecology for review and approval. The recommendation may include issuing the permit, issuing the permit with conditions, or denial of the application.

7.4.8 Washington State Department of Ecology Review

After all local permit administrative appeals or reconsideration periods are complete and the Shoreline Conditional Use Permit documents are amended to incorporate any resulting changes, the Shoreline Administrator shall mail the permit using return receipt requested mail to the Department of Ecology regional office and the Office of the Attorney General. Conditional Use Permits and/or Variances required for the project shall be mailed simultaneously with any Substantial Development Permits for the project. The Shoreline Administrator shall mail the following:~~Within eight (8) days of the City's Council's final decision the Shoreline Administrator shall file the following with Ecology. The Shoreline Administrator shall file the following with the Department of Ecology and the Attorney General:~~

Commented [JW24]: Required by Ecology checklist 2017 (d).

1. A copy of the complete application pursuant to WAC 173-27-180;
2. Findings and conclusions that establish the basis for the decision including but not limited to identification of shoreline environment designation, applicable master program policies and regulations and the consistency of the project with review criteria for Substantial Development Permits.
3. The final decision of the local government;
4. The permit data sheet (Appendix A to WAC 173-27-990, included at the end of this chapter); and
5. The local government shall also file the applicable documents required by chapter 43.21C

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RCW, the State Environmental Policy Act, or in lieu thereof, a statement summarizing the actions and dates of such actions taken under chapter 43.21C RCW.

6. Affidavit of public notice.

When the project has been modified in the course of the local review process, plans or text shall be provided to the department that clearly indicate the final approved plan.

"Date of filing" involving approval or denial of a variance or conditional use permit, is the date of transmittal of the department's final decision on the variance or conditional use permit to local government and the applicant. The department shall provide a written notice to the local government and the applicant of the "date of filing."

Ecology shall review the complete file submitted by the City on Shoreline Conditional Use Permits and any other information submitted or available that is relevant to the application. Ecology shall base its determination to approve, approve with conditions or deny a Conditional Use Permit or variance on consistency with the policy and provisions of the SMA and the criteria in WAC 173-27-160 and 173-27-170.

Ecology shall render and transmit to the City and the applicant its final decision approving, approving with conditions, or disapproving the permit within thirty days of the date of submittal by the City. The Shoreline Administrator will notify those interested persons having requested notification of such decision.

Construction pursuant to a Shoreline Conditional Use Permit shall not begin and is not authorized until twenty-one (21) days after Ecology issues its final decision, per RCW 90.58.140(6), RCW 90.58.140(10), and RCW 90.58.180.

7.4.9 Appeals

All appeals of any final permit decision are governed by the procedures established in RCW 90.58.180, RCW 90.58.140(6,10), and Chapter 461-08 WAC~~WAC 481.03~~, the rules and procedures of the Shorelines Hearing Board. ~~-~~All appeals of any final permit decision shall be made to the Shoreline Hearings Board within twenty-one (21) days after the date of filing, which is defined below:

1. For projects that only require a Substantial Development Permit, the date that Ecology receives the City of Des Moines' decision.
2. For a Conditional Use Permit (CUP) or Variance, the date that Ecology's decision on the CUP or Variance is transmitted to the applicant and the City of Des Moines.
3. For Substantial Development Permits simultaneously mailed with a CUP or Variance to Ecology, the date that Ecology's decision on the CUP or Variance is transmitted to the applicant and the City of Des Moines.~~All appeals of any final permit decision must be made to the Shorelines Hearing Board within twenty-one (21) days after Ecology issues its final decision concerning the substantial development permit.~~

Commented [JW25]: WAC 481-03 no longer exists.

Commented [JW26]: Required by Ecology checklist 2017 (d).

7.4.10 Revisions to Shoreline Conditional Use Permits

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A permit revision is required whenever an applicant proposes substantive changes to the design, terms or conditions of a project from that which was approved in the permit. When a revision of a Shoreline Conditional Use Permit is sought, the applicant shall submit detailed plans and text describing the proposed changes in the permit and demonstrating compliance with the following minimum standards pursuant to WAC 173-27-100.

If the proposed changes are determined by the Shoreline Administrator to be within the scope and intent of the original permit, and are consistent with the SMA (RCW 90.58), the Guidelines in WAC 173-26, and this SMP, the revision shall be approved. "Within the scope and intent of the original permit" means the following:

1. No additional over water construction will be involved.
2. Lot coverage and height may be increased a maximum of ten percent (10%) from the provisions of the original permit: Provided, that revisions involving new structures not shown on the original site plan shall require a new permit, and: Provided, further that any revisions authorized under this subsection shall not exceed height, lot coverage, setback or any other requirements of this SMP for the area in which the project is located.
3. Landscaping may be added to a project without necessitating an application for a new permit. Provided, that the landscaping is consistent with conditions (if any) attached to the original permit and is consistent with this SMP for the area in which the project is located.
4. The use authorized pursuant to the original permit is not changed.
5. No additional adverse environmental impact will be caused by the project revision.

If the revision or the sum of the revision and any previously approved revisions violate the terms of one or more of the provisions itemized above, the applicant shall apply for a new Shoreline Conditional Use Permit in the manner provided herein.

The City shall submit the revision to Ecology for approval, approval with conditions, or denial, and shall indicate that the revision is being submitted under the requirements of WAC 173-27-100. The department shall render and transmit to the City and the applicant its final decision within fifteen days of the date of Ecology's receipt of the submittal from the City. The City shall notify parties of record of the department's final decision.

The revised permit is effective upon final action by Ecology. A notice of revision approval shall be forwarded to persons who have notified the Shoreline Administrator of their desire to receive a copy of the action on a permit. Formal revisions to permits are subject to the twenty-one (21) day appeal process described above.

7.5 Variance Permit Procedures

7.5.1 General Provisions

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The purpose of a Variance Permit is strictly limited to granting relief from specific bulk, dimensional or performance standards set forth in this SMP, and where there are extraordinary or unique circumstances relating to the physical character or configuration of property such that the strict implementation of the SMP would impose unnecessary hardships on the applicant or thwart the SMA policies as stated in RCW 90.58.020. Requests for allowing uses different than those specifically identified as allowed in the shoreline environment cannot be considered in the variance process.

Construction pursuant to this permit shall not begin nor can construction be authorized except as provided in WAC 173-27. In all instances, extraordinary circumstances shall be shown and the public interest shall suffer no substantial detrimental effect. Ecology is the final approving authority for Variance Permits.

7.5.2 Criteria

Pursuant to WAC 173-27-210, the criteria below shall constitute the minimum criteria for review and approval of a Shoreline Variance Permit. Variance Permits for development that will be located landward of the ordinary high water mark (per RCW 90.58.030(2)(~~b~~c) definition), except those areas designated as marshes, bogs or swamps pursuant to WAC 173-22, may be authorized provided the applicant can demonstrate all of the following:

1. That the strict application of the bulk, dimensional or performance standards set forth in this Program precludes, or significantly interferes with, reasonable use of the property;
2. That the hardship described above is specifically related to the property, and is the result of unique conditions such as irregular lot shape, size, or natural features and not, for example, from deed restrictions or the applicant's own actions;
3. That the design of the project will be compatible with other permitted activities within the area and with uses planned for the area under the comprehensive plan and shoreline master program and will not cause adverse impacts to the shoreline environment~~.~~;
4. That the variance authorized does not constitute a grant of special privilege not enjoyed by other properties in the area, and will be the minimum necessary to afford relief; and
5. That the public interest will suffer no substantial detrimental effect.
6. Variance Permits for development that will be located either waterward of the ordinary high water mark or within marshes, bogs or swamps as designated in WAC 173-22, may be authorized provided the applicant can demonstrate all the criteria stated above as well as the following:
   a. That the strict application of the bulk, dimensional or performance standards set forth in this Program precludes all reasonable use of the property;~~.,~~ and
   b. That the public rights of navigation and use of the shorelines will not be adversely affected by the granting of the variance.

In the granting of all Variance Permits, consideration shall be given to the cumulative impact of additional requests for like actions in the area. For example, if variances were granted to other developments in the area where similar circumstances exist, the total of the variances should also remain consistent with the policies of RCW 90.58 and should not produce substantial adverse

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effects to the shoreline environment or result in a net loss of ecological functions. Variances from the use regulations of this SMP are prohibited.

7.5.3 Application

The owner of the subject property or the authorized agent(s) of the owner is encouraged to have a pre-application meeting with the Shoreline Administrator and/or his or her staff to determine the need for a shoreline variance. If needed, the applicant may apply for a Shoreline Variance Permit by submitting to the Shoreline Administrator a Variance Permit application using the Joint Aquatic Resource Permit Application (JARPA) form provided by the City and accompanied by applicable fees, and any other information requested by the Shoreline Administrator. A completed application for a Shoreline Variance Permit shall, at a minimum, contain the following information and diagrams:

1. Completed JARPA form.
2. Completed intake form from WAC 173-27-990, Appendix A – Shoreline Management Act Permit Data Sheet and Transmittal Letter, included at the end of this chapter.
3. The name, address and phone number of the applicant. The applicant should be the owner of the property or the primary proponent of the project and not the representative of the owner or primary proponent.
4. The name, address and phone number of the applicant's representative if other than the applicant.
5. The name, address and phone number of the property owner, if other than the applicant.
6. Location of the property. This shall, at a minimum, include the property address and identification of the section, township and range to the nearest quarter, quarter section or latitude and longitude to the nearest minute. All applications for projects located in open water areas away from land shall provide a longitude and latitude location.
7. Identification of the name of the shoreline (water body) that the site of the proposal is associated with. This should be the water body from which jurisdiction of the act over the project is derived (e.g., Puget Sound).
8. A general description of the proposed project that includes the proposed use or uses and the activities necessary to accomplish the project.
9. A general description of the property as it now exists including its physical characteristics and improvements and structures.
10. A general description of the vicinity of the proposed project including identification of the adjacent uses, structures and improvements, intensity of development and physical characteristics.
11. A site development plan consisting of maps and elevation drawings, drawn to an appropriate scale to depict clearly all required information, photographs and text which shall include:
    a. The boundary of the parcel(s) of land upon which the development is proposed.
    b. The ordinary high water mark of all water bodies located adjacent to or within the boundary of the project. This may be an approximate location provided, that for any development where a determination of consistency with the applicable regulations

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requires a precise location of the ordinary high water mark the mark shall be located precisely and the biological and hydrological basis for the location as indicated on the plans shall be included in the development plan. Where the ordinary high water mark is neither adjacent to or within the boundary of the project, the plan shall indicate the distance and direction to the nearest ordinary high water mark of a shoreline.

c. Existing and proposed land contours. The contours shall be at intervals sufficient to accurately determine the existing character of the property and the extent of proposed change to the land that is necessary for the development. Areas within the boundary that will not be altered by the development may be indicated as such and contours approximated for that area.

d. A delineation of all wetland areas that will be altered or used as a part of the development.

e. A general indication of the character of vegetation found on the site.

f. The dimensions and locations of all existing and proposed structures and improvements including but not limited to; buildings, paved or graveled areas, roads, utilities, septic tanks and drainfields, material stockpiles or surcharge, and stormwater management facilities.

g. Where applicable, a landscaping plan for the project.

h. Where applicable, plans for development of areas on or off the site as mitigation for impacts associated with the proposed project shall be included and contain information consistent with the requirements of this section.

i. Quantity, source and composition of any fill material that is placed on the site whether temporary or permanent.

j. Quantity, composition and destination of any excavated or dredged material.

k. A vicinity map showing the relationship of the property and proposed development or use to roads, utilities, existing developments and uses on adjacent properties.

l. Where applicable, a depiction of the impacts to views from existing residential uses and public areas.

12. Copy of completed environmental checklist, declaration of non-significance or environmental impact statement as is appropriate. Note that if the environmental review has not occurred prior to application for a Shoreline Permit, the time period for application review may be extended.

13. The names, addresses and legal description for each parcel of property within three hundred (300) feet of the exterior boundary of the subject property as shown by the records of the King County Assessor.

14. Other information, plans, data and diagrams as required by the Shoreline Administrator.

All site plans and maps shall be drawn to scale and shall clearly indicate scale on the lower right-hand corner and be attached to the application.

7.5.4 Public Notice

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Applicants are responsible for the following public notices as part of any Variance Permit application. Public notice requirements under SEPA may be satisfied concurrently as part of the Shoreline Variance Permit process:

1. Notification by regular mail no less than twenty (20) days prior to the public hearing to all owners of property lying within 300 feet of the exterior boundaries of the property being developed or supporting the proposed improvement. The form of such notice shall be provided by the City and the content shall be approved by the Shoreline Administrator prior to mailing.
2. Posting of a thirty-two (32) square foot sign at the subject property, presenting the following information:
   a. Type of permit applied for;
   b. Brief description of proposed use;
   c. Address of subject property;
   d. Applicant's name;
   e. Public hearing time and date; and
   f. Invitation to express views on proposal at the public hearing or in writing to the Shoreline Administrator one week prior to the public hearing date (date to be specified).
3. Publication of public notice in a newspaper with local distribution ~~no less than once a week for two consecutive weeks, with the last publication date~~ no less than thirty (30) days prior to the public hearing date.
4. An affidavit that the notice has been properly published, posted and deposited in the U. S. mail pursuant to the, above requirements shall be submitted to the Shoreline Administrator at least thirty (30) days in advance of the public hearing.

Commented [DL27]: Not required by the State.

7.5.5 Public Meeting

A public meeting shall be held by the Planning Agency regarding an application for a Shoreline Variance Permit. The public meeting should be held at the earliest possible date after the thirty (30) day public comment period has ended. The Planning Agency shall determine the application's compliance with the review criteria for shoreline variances in addition to any other criteria to be met specified by the Municipal Code or statute, and recommend the Variance Permit application be forwarded to City Council for review and approval.

7.5.6 Public Hearing and City Council Decision

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The City Council shall be the decision-making authority for any Shoreline Variance Permit.

The City Council shall hold a public hearing on each proposed shoreline variance. No later than the first regular public meeting after receiving the recommendation of the planning agency permit application, the city council shall set by motion the date of the hearing. The Shoreline Administrator shall prepare and distribute public notice of the hearing as set forth in DMMC 18.20.130~~17.40.070~~.

The City Council shall determine the application's compliance with the review criteria for Shoreline Variance Permits, in addition to any other criteria to be met specified by the Municipal Code or statute. Upon a finding of compliance with these criteria the City Council shall instruct the Shoreline Administrator to prepare written findings of fact and statement of reasons in support of the determination and to forward the recommendation to Ecology for review and approval. The recommendation may include approving the Variance Permit, approving the Variance Permit with conditions, or denial of the application.

7.5.7 Washington State Department of Ecology Review

After all local permit administrative appeals or reconsideration periods are complete and the Shoreline Variance Permit documents are amended to incorporate any resulting changes, the Shoreline Administrator shall mail the permit using return receipt requested mail to the Department of Ecology regional office and the Office of the Attorney General. Conditional Use Permits and/or Variances required for the project shall be mailed simultaneously with any Substantial Development Permits for the project. The Shoreline Administrator shall mail the following:~~Within eight (8) days of the City's Council's final decision the Shoreline Administrator shall file the following with Ecology and the Attorney General:~~

Commented [JW28]: Required by Ecology checklist 2017 (d).

1. A copy of the complete application pursuant to WAC 173-27-180;
2. Findings and conclusions that establish the basis for the decision including but not limited to identification of shoreline environment designation, applicable master program policies and regulations and the consistency of the project with review criteria for Substantial Development Permits.
3. The final decision of the local government;
4. The permit data sheet (Appendix A to WAC 173-27-990, included at the end of this chapter); and
5. The local government shall also file the applicable documents required by chapter 43.21C RCW, the State Environmental Policy Act, or in lieu thereof, a statement summarizing the actions and dates of such actions taken under chapter 43.21C RCW.
6. Affidavit of public notice.

Ecology shall review the complete file submitted by the City on Variance Permits and any other information submitted or available that is relevant to the application. Ecology shall base its determination to approve, approve with conditions or deny a Conditional Use Permit or variance on consistency with the policy and provisions of the SMA and the criteria in WAC 173-27-160 and 173-27-170.

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Ecology shall render and transmit to the City and the applicant its final decision approving, approving with conditions, or disapproving the permit within thirty days of the date of submittal by the City. The Shoreline Administrator will notify those interested persons having requested notification of such decision.

Construction pursuant to a Shoreline Variance Permit shall not begin and is not authorized until twenty-one (21) days after Ecology issues its final decision, per RCW 90.58.140(6), RCW 90.58.140(10), and RCW 90.58.180.

7.5.8 Appeals

All appeals of any final permit decision are governed by the procedures established in RCW 90.58.180 and Chapter 461-08 WAC~~WAC 481-03~~, the rules and procedures of the Shorelines Hearing Board. All appeals of any final permit decision shall be made to the Shoreline Hearings Board within twenty-one (21) days after the date of filing, which is defined below:

1. For projects that only require a Substantial Development Permit, the date that Ecology receives the City of Des Moines' decision.
2. For a Conditional Use Permit (CUP) or Variance, the date that Ecology's decision on the CUP or Variance is transmitted to the applicant and the City of Des Moines.
3. For Substantial Development Permits simultaneously mailed with a CUP or Variance to Ecology, the date that Ecology's decision on the CUP or Variance is transmitted to the applicant and the City of Des Moines.~~All appeals of any final permit decision must be made to the Shorelines Hearing Board within twenty-one (21) days after Ecology issues its final decision concerning the substantial development permit.~~

Commented [JW29]: WAC 481-03 no longer exists.

Commented [JW30]: Required by Ecology checklist 2017 (d).

7.5.9 Revisions to Shoreline Variance Permits

A permit revision is required whenever an applicant proposes substantive changes to the design, terms or conditions of a project from that which was approved in the permit. When a revision of a Shoreline Variance Permit is sought, the applicant shall submit detailed plans and text describing the proposed changes in the permit and demonstrating compliance with the following minimum standards pursuant to WAC 173-27.

If the proposed changes are determined by the Shoreline Administrator to be within the scope and intent of the original permit, and are consistent with the SMA (RCW 90.58), the Guidelines in WAC 173-26, and this SMP, the revision shall be approved. "Within the scope and intent of the original permit" means the following:

1. No additional over water construction will be involved.
2. Lot coverage and height may be increased a maximum of ten percent (10%) from the provisions of the original permit: Provided, that revisions involving new structures not shown on the original site plan shall require a new permit, and: Provided, further that any revisions authorized under this subsection shall not exceed height, lot coverage, setback or any other requirements of this SMP for the area in which the project is located.

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3. Landscaping may be added to a project without necessitating an application for a new permit. Provided, that the landscaping is consistent with conditions (if any) attached to the original permit and is consistent with this SMP for the area in which the project is located.
4. The use authorized pursuant to the original permit is not changed.
5. No additional adverse environmental impact will be caused by the project revision.

If the revision or the sum of the revision and any previously approved revisions violate the terms of one or more of the provisions itemized above, the applicant shall apply for a new Shoreline Variance Permit in the manner provided herein.

The City shall submit the revision to Ecology for approval, approval with conditions, or denial, and shall indicate that the revision is being submitted under the requirements of WAC 173-27-100. The department shall render and transmit to the City and the applicant its final decision within fifteen days of the date of Ecology's receipt of the submittal from the City. The City shall notify parties of record of the department's final decision.

The revised permit is effective upon final action by Ecology. A notice of revision approval shall be forwarded to persons who have notified the Shoreline Administrator of their desire to receive a copy of the action on a permit. Formal revisions to permits are subject to the twenty-one (21) day appeal process described above.

7.5.10 Allowed Activities within Critical Areas and the Marine Buffer

Commented [JW31]: Associated with the 11/8/18 Council Environment Committee approved regulatory change.

LIST OF ACTIVITIES THAT ARE PERMITTED WITHIN MARINE AND CRITICAL AREA BUFFERS THROUGH AN SSDP OR SHORELINE EXEMPTION. WHILE MOST OF THESE ACTIVITIES ARE CURRENTLY PERMITTED WITHOUT THE CUP OR VARIANCE REQUIREMENT, THIS NEW LIST PROVIDES CLARITY.

Certain development activities are allowed within critical areas and their buffers, the marine buffer, and associated setbacks without the requirement to secure a Shoreline Variance Permit. The list of allowed activities in this subsection is not an exhaustive list, but it is intended to provide clarity for a number of activities. Note that this subsection does not provide relief from compliance with the Shoreline Substantial Development Permit process; the policies and use regulations of the SMA (RCW 90.58); the provisions of this Master Program; or other applicable city, state or federal permit requirements.

All listed activities shall obtain a Substantial Development Permit or Statement of Exemption. A development activity or use that is listed as a conditional use pursuant to this master program or is an unclassified use, shall obtain a the Conditional Use Permit (CUP) even if the development is allowed ~~for~~ without a Shoreline Variance Permit. If any part of a proposed development would be required to obtain a Shoreline Variance Permit, then a Shoreline Variance Permit is required for the entire proposed development project.

Proposed actions within critical areas and the marine buffer shall not result in a net loss of shoreline ecological functions. A professional study or studies addressing the biological, geological, and hydrological buffer functions of the site and impacts of the proposal shall be submitted for review. The burden of proof that the proposed actions do not result in a net loss of

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shoreline ecological functions is on the applicant. Local government may attach conditions to the approval of the allowed activities as necessary to ensure consistency of the project with the SMA and this Program.

The following activities shall not require Shoreline Variance Permits, subject to limitations:

1. Private shoreline access paths, walkways, stairs, and trails.

   a. For each single-family residential lot, only one pedestrian route is allowed for access to the OHWM.

   b. Development shall be designed and located to minimize disturbance.

   c. Development shall be no wider than 4 feet and, when possible, constructed of permeable materials.

   d. Development shall be located to preserve the most sensitive portion of the site and constructed in a manner that minimizes adverse impacts on shoreline ecological functions including the removal of trees, shrubs, snags, and important wildlife habitat.

   e. Development shall, to the extent feasible, be placed on previously disturbed areas.

   f. Improvements shall not result in a net loss of shoreline ecological functions. Ecological impacts shall be mitigated.

   g. Development shall be designed to have minimal impact on views and the appearance of the shoreline.

   h. Trail construction and maintenance shall follow the U.S. Forest Service "Trails Management Handbook" (FSH 2309.18, June 1987) and "Standard Specifications for Construction of Trails" (EM-7720-102, June 1984) or as amended.

2. Public access and recreation. Refer to Section 6.1.6 for more information on public access and Section 6.3.7 for more information on recreational development.

   a. Development and associated uses shall be permitted pursuant to Tables 6-1 and 6-2.

   b. Development shall be located to preserve the most sensitive portion of the site and constructed in a manner that minimizes adverse impacts on shoreline ecological functions including the removal of trees, shrubs, snags, and important wildlife habitat.

   c. Development shall, to the extent feasible, be placed on previously disturbed areas.

   d. The activity shall be consistent with the City's Comprehensive Plan and the City's ~~Comprehensive~~ Parks ~~and~~, Recreation and Senior Services Master Plan.

   e. Improvements shall not result in a net loss of shoreline ecological functions. Ecological impacts shall be mitigated.

   f. Improvements shall be of a nature and scale that will be compatible with adjacent land uses and natural features, including aquatic life.

Commented [JW32]: Crafted from the SSDP exemption language in SMP 7.2.

Commented [JW33]: DMMC 16.10.300

Commented [JW34]: Width is between what Seattle, Renton, and Bothell require. Seattle and Bothell require pervious materials.

Commented [JW35]: Similar to Renton and Bothell language.

Commented [JW36]: DMMC 16.10.300

Commented [JW37]: DMMC 16.10.300

Commented [JW38]: Similar to Renton and Bothell language.

Commented [JW39]: DMMC 16.10.300

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g. Development shall respect and protect ecological and aesthetic values in the shorelines of the state.

h. Improvements shall be designed to meet Americans with Disabilities Act (ADA) standards, while maintaining existing shoreline habitats and ecological systems.

i. Development shall respect rights of shoreline property owners and shall be consistent with all relevant constitutional and other legal limitations on regulation of private property.

j. Development shall be of a scale that is not greater than the intensity of use.

k. New developments shall minimize visual and physical obstruction of the water from shoreline roads and upland owners.

3. Park improvements (e.g., public trails and trail-related facilities, picnic tables, benches, concession stands, interpretive centers and signs, viewing platforms, play equipment, picnic shelters, public art and art installations, drinking fountains, benches, restrooms, garbage cans, and other similar passive furnishing and fixtures).

a. Development shall be located to preserve the most sensitive portion of the site and constructed in a manner that minimizes adverse impacts on shoreline ecological functions including the removal of trees, shrubs, snags, and important wildlife habitat.

b. The City Manager or the City Manager's designee may approve such trails and facilities only when he/she determines that there are no practicable or reasonable upland alternatives.

c. Development shall, to the extent feasible, be placed on previously disturbed areas.

d. Development shall be designed and located to minimize disturbance.

e. Use of impervious surface shall be minimized.

f. Improvements shall not result in a net loss of shoreline ecological functions. Ecological impacts shall be mitigated.

4. Bulkheads, bioengineered erosion stabilization, and upland bluff stabilization. Refer to Section 6.2.1 and 6.2.2 for more information on stabilization measures.

a. New stabilization methods excluded from the shoreline variance requirement shall be limited to the protection of existing primary structures or uses, water-dependent development, public improvements, unique natural resources, or the only feasible access to property.

b. The need to protect primary structures or uses from damage due to erosion shall be demonstrated through a geotechnical report. The damage must be caused by natural processes.

c. New stabilization measures on feeder bluffs shall be avoided and, if that is not possible, minimize adverse impacts to natural sediment transport processes.

Commented [JW40]: SMP 6.1.7(6)

Commented [JW41]: SMP 3.2.2

Commented [JW42]: DMMC 16.10.300

Commented [JW43]: Similar to Renton and Bothell language.

Commented [JW44]: DMMC 16.10.300

Commented [JW45]: DMMC 16.10.300

Commented [JW46]: DMMC 16.10.300

Commented [JW47]: DMMC 16.10.300.

Commented [JW48]: SMP 6.2.1 and 6.2.2

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d. Improvements shall not result in a net loss of shoreline ecological functions. Ecological impacts shall be mitigated.

5. Utilities. Refer to Section 6.3.10 for more information on utilities.

a. There are not practical or reasonable alternatives to development in the marine buffer or critical area.

b. Corridor alignment shall follow a path of least impact to the functions of marine buffer and critical areas.

c. Corridors shall be fully revegetated with native vegetation upon completion of construction.

d. Improvements shall not result in a net loss of shoreline ecological functions. Ecological impacts shall be mitigated.

6. Fill required specifically for the protection of archaeological or cultural. The minimum amount of fill necessary for the purpose of protection may be approved without a Shoreline Variance Permit.

7. Maintenance dredging restricted to previously legally established and authorized locations, depths, and widths.

8. At-grade patios adjacent to a primary single-family residence for the purpose of access to, enjoyment of, and recreation within the shoreline.

a. In no cases shall new development be allowed within thirty (30) feet of the marine ordinary high water mark.

b. The patio shall be constructed of permeable materials.

c. The patio area shall be limited to 150 square feet.

d. Development shall, to the extent feasible, be placed on previously disturbed areas.

e. Improvements shall not result in a net loss of shoreline ecological functions. Ecological impacts shall be mitigated.

9. Hazardous Waste Cleanup. Refer to SMP 7.1 for information regarding remedial actions.

10. Beach Restoration.

Commented [JW49]: SMP 6.4 / DMMC 16.10.300

Commented [JW50]: DMMC 16.10.300

Commented [JW51]: Language from SMP 6.1.4(3)

Commented [JW52]: DMMC 16.10.300

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Shoreline Management Act

Permit Data Sheet and Transmittal Letter

(WAC 173-27-990)

From: (local government)

To: (appropriate Ecology office)

Date of Transmittal:

Date of Receipt: (provided by Ecology)

Type of Permit: (Indicate all that apply)

Substantial Development ; Conditional Use ; Variance ; Revision ; Other .

Local Government Decision: Approval ; Conditional Approval ; Denial :

Applicant Information:

Name:

Address:

Phone(s):

Applicant's Representative: (if primary contact)

Name:

Address:

Phone(s):

Is the applicant the property owner? yes no

Location of the Property: (Section Township and Range to the nearest 1/4, 1/4 Section or latitude and longitude, and a street address where available)

Water Body Name:

Shoreline of Statewide Significance: Yes No .

Environment Designation:

Description of the Project: (Summary of the intended use or project purpose)

Notice of Application Date:

Final Decision Date:

By: (Local Government Primary Contact on this Application)

Phone No:

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CHAPTER 8 – DEFINITIONS

In addition to definitions contained in the Des Moines ~~Zoning~~ Municipal Code (DMMC ~~18.04~~), the following definitions shall apply for purposes of administering the Des Moines Shoreline Master Program (SMP).

~~**Abut (abutting, abuts)**[3]**.** To touch at one end or side, to lie adjacent to, be next to, or to border upon. Abut is synonymous with adjacent and adjoining.~~

Accessory[3]**.** A use, a building or structure, part of a building or other structure, which is subordinate to and the use of which is incidental to that of the main building, structure, or use on the same lot, including a private garage. If an accessory building is attached to the main building by a common wall or roof, such accessory building shall be considered a part of the main building.

Accessory living quarters (ALQ)[3]. A detached structure or an attached part of a structure that is subordinate and incidental to the main or primary dwelling unit. ADUs provide complete independent living facilities exclusive for one single housekeeping unit, including provisions for living, sleeping, cooking, and sanitation. References to "accessory living quarters" or "ALQs" throughout the SMP shall mean "accessory dwelling units" or "ADUs" and may be used interchangeably.~~Provides complete independent living facilities including provisions for living, sleeping, cooking, and sanitation within a detached structure or within part of the primary dwelling unit.~~

Act[1]**.** The Washington State SMA, chapter 90.58 RCW.

Accretion beach[~~2~~4]**.** Beach area that shows a net accumulation of beach sediment over time, as a result of natural coastal geologic processes or as a result of the effects of shoreline modifications on natural processes.

~~**Adjacent**[2]. To abut~~

Agricultural activities[1]**.** Agricultural uses and practices for economic use, including, but not limited to: Producing, breeding, or increasing agricultural products; rotating and changing agricultural crops; allowing land used for agricultural activities to lie fallow in which it is plowed and tilled but left unseeded; allowing land used for agricultural activities to lie dormant as a result of adverse agricultural market conditions; allowing land used for agricultural activities to lie dormant because the land is enrolled in a local, state, or federal conservation program, or the land is subject to a conservation easement; conducting agricultural operations; maintaining, repairing, and replacing agricultural equipment; maintaining, repairing, and replacing agricultural facilities, provided that the replacement facility is no closer to the shoreline than the original facility; and maintaining agricultural lands under production or cultivation.

Alley[~~2~~3]. A public thoroughfare or way which affords only a secondary means of access to abutting property.

KEY: 1. RCW or WAC 2. ~~1988~~ 2010 SMP Glossary 3. ~~City Zoning~~Des Moines Municipal Code4. New Definition

Commented [JW1]: This is a standard dictionary definition that is not needed.

Commented [JW2]: Updated with current DMMC definition.

Commented [JW3]: Not in DMMC.

Commented [JW4]: This is a standard dictionary definition that is not needed.

Commented [JW5]: Not in the DMMC.

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Amendment[1]**.** A revision, update, addition, deletion, and/or reenactment to the Des Moines SMP.

Approval[1]**.** An official action by the City of Des Moines agreeing to submit a proposed SMP or amendments to the Department of Ecology for review and official action pursuant to the SMA.

Area of special flood hazard[3]**.** The land in the flood plain within a community subject to a one percent or greater chance of flooding in any given year. Designation on maps always includes the letters A or V.~~The land within a flood plain subject to a one percent or greater chance of flooding in any given year. These areas include, but are not limited to, streams, rivers, lakes, coastal areas, and wetlands.~~

Commented [JW6]: Current definition from DMMC.

Apartment[3]. A room, or a suite of two or more rooms in a multiple dwelling or in any other building not a single-family dwelling or a duplex dwelling occupied or suitable for occupancy as a dwelling unit for one family.

Apartment hotel~~[32]~~. A building containing dwelling units and six or more hotel rooms or suites.

Commented [JW7]: Not in DMMC.

Apartment house[3]. A building or a portion of a building, designed for occupancy by three or more families living separately from each other and containing three or more dwelling units.

Appeal, closed record[1]. As defined by RCW 36.70B.020(1), a "closed record appeal" means an appeal of a land use action following an open record public hearing on a proposed land use action. Such an appeal is on the record established during the open record pre-decision public hearing with no new evidence or information allowed. During a closed record appeal, only appeal argument is allowed.

Appeal, open record~~[23]~~. An appeal related to an open record public hearing held prior to a decision on a proposed land use action~~-~~. An open record hearing may be held on an appeal, to be known as an "open record appeal hearing" if no open record pre-decision hearing has been held on the land use action.

Commented [JW8]: Not found in DMMC.

Aquifer[3]. A consolidated or unconsolidated ground water-bearing geologic formation or formations that contain enough saturated permeable material to yield significant quantities of water to wells.

Bank[2]**.** A steep rise or slope at the edge of a body of water or water course.

Beach nourishment[2]**.** The artificial replenishing of a beach by delivery of materials dredged or excavated elsewhere.

Berm[2]**.** A ledge or shoulder consisting of mounded earth or rock.

Bluff[3]. A steep slope which abuts and rises from Puget Sound. Bluffs contain slopes predominantly in excess of 40 percent, although portions may be less than 40 percent. The toe of the bluff is the beach of Puget Sound. The top of a bluff is typically a distinct line where the slope abruptly levels out. Where there is no distinct break in slope, the slope is either the line of

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vegetation separating the unvegetated slope from the vegetated uplands plateau or, when the bluff is vegetated, the point where the bluff slope diminishes to less than 15 percent.

Boathouse, private[3]. An accessory building, or portion of building, which provides shelter and enclosure for a boat or boats owned and operated only by the occupants of the premises.

Boathouse Public[23]. A boathouse other than a private boathouse, used for the care, repair, or storage of boats, or where such boats are kept for remuneration, hire, or sale.

Commented [JW9]: Not found in the DMMC.

Boating Facilities[24]. A facility or structure providing access in and out of the water for vessels, such as marinas, launching ramps, rails, or lift station. For purposes of the Shoreline Master Program, boating facilities excludes docks serving four or fewer single-family residences

Breakwater[2]**.** Protective structures usually built off-shore to protect harbor areas, moorages, navigation, beaches and bluffs from wave action. Breakwater designs may be fixed (e.g., rubble mound or rigid wall), open-pile or floating.

Buffer[3]**.** Either an area adjacent to hillsides which provides the margin of safety through protection of slope stability, attenuation of surface water flows and landslide, seismic, and erosion hazards reasonably necessary to minimize risk to the public from loss of life, well-being, or property damage resulting from natural disasters; or an area adjacent to a stream or wetland which is an integral part of the stream or wetland ecosystem, providing shade; input of organic debris and coarse sediments; room for variation in stream or wetland boundaries; habitat for wildlife; impeding the volume and rate of runoff; reducing the amount of sediment, nutrients, and toxic materials entering the stream or wetland; and protection from harmful intrusion to protect the public from losses suffered when the functions and values of stream and wetland resources are degraded.

Building[3]**.** Any structure having a roof, but excluding all forms of vehicles even though immobilized. When a use is required to be within a building, or where special authority granted pursuant to this ~~title~~ Program or the DMMC requires that a use shall be within an entirely enclosed building, then the term "building" means one so designed and constructed that all exterior walls of the structure shall be solid from the ground to the roof line, and shall contain no openings except for windows and doors which are designed so that they may be closed.

~~**Building department**[3]. The city manager or his authorized representative~~

Commented [JW10]: Not found in the DMMC.

Commented [JW11]: Not necessary.

Building height[3]**.** The vertical distance from the grade to the highest point of the coping of a flat roof, or to the deck line of a mansard roof, or to the height of the highest gable of a pitch or hip roof.~~vertical distance from the average grade level to the highest point of the coping of a flat roof, or to the deck line of a mansard roof, or to the height of the highest gable of a pitch or hip roof.~~

Commented [JW12]: Updated to be the same as the DMMC.

Building, main[3]. The principal building or other structure on a lot or building site designed or used to accommodate the primary use to which the premises are devoted. Where a permissible use involves more than one building or structure designed or used for the primary purpose, as in

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the case of group houses, each such permissible building or other structure on a lot or building site as defined by this ~~title~~ SMP or the DMMC shall be construed as comprising a main building or structure.

Building setback line[3]. A line beyond which the footprint or foundation of a building shall not extend.

Building site[3]. A parcel of land assigned to a use, to a main building, or to a main building and its accessory buildings, together with all yards and open spaces required by this ~~title~~SMP and the DMMC, whether the area so devoted is comprised of one lot, a combination of lots, or combination of lots and fractions of lots.

Bulkhead[2]**.** A wall, seawall, embankment or other structure erected parallel to the shoreline that retains or prevents sliding or erosion of land or protects land from wave action.

Bungalow court[~~3~~2]. A group of three or more detached one-story, one-family, or duplex dwellings located upon a single lot or building site, together with all open spaces required by this ~~title~~SMP and the DMMC.

Commented [JW13]: Not in the DMMC.

Business or commerce[~~2~~3]**.** The purchase, sale, offering for sale, or other transaction involving the handling or disposition of any article, service, substance, or commodity for livelihood or profit; or the management or occupancy of the office buildings, offices, recreational, or amusement enterprises; or the maintenance and use of buildings, offices, structures, or premises by professions and trades or persons rendering services.

Commented [JW14]: Not in the DMMC.

Camp, public[~~2~~3]**.** Any area or tract of land used or designed to accommodate two or more camping parties, including cabins, tents, camping trailers, or other camping outfits.

Commented [JW15]: Not in DMMC.

Carrying Capacity[2]**.** The ability of a natural or man-made system to absorb population growth or physical development without significant degradation or breakdown.

Channel bottom[~~2~~3]. The submerged portion of the stream cross-section which is totally an aquatic environment. The channel bottom may be seasonally dry.

Commented [JW16]: Not in DMMC.

Channel migration zone (CMZ)[1]. The area along a river within which the channel(s) can be reasonably predicted to migrate over time as a result of natural and normally occurring hydrological and related processes when considered with the characteristics of the river and its surroundings.

Clearing[3]**.** The destruction and removal of vegetation by burning, mechanical, or chemical methods.

Coastal Zone Atlas of Washington[~~3~~2]. A document prepared by the Washington State Department of Ecology (publication No. DOE 77-21-6) to assist local governments in making land and water use decisions for the shoreline areas and marine aquatic areas under their jurisdiction. The document contains the following coastal surveys: geology, slope stability,

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flooding, sand and gravel resources, critical faunal and floral areas, coastal drift sector inventory, and land cover/land use.

Commercial and recreational shellfish areas[3]. Areas that include all public and private tidelands or bedlands suitable for shellfish harvest, including shellfish protection districts established pursuant to chapter 90.72 RCW.

Compensation[3]. The replacement, enhancement, or creation of an undevelopable environmentally critical area equivalent in functions, values, and size to those being altered or lost from development.

Conditional use[1]**.** A use, development, or substantial development which is classified as a shoreline conditional use or is not classified within the SMP.

Conforming use[3]. An activity the nature and type of which is permitted in the zone in which the property on which it is established is located.

Creation (establishment), wetlands[3]**.** The manipulation of the physical, chemical, or biological characteristics present to develop a wetland on an upland or deepwater site where a wetland did not previously exist. "Establishment" results in a gain in wetland acres. Activities typically involve excavation of upland soils to elevations that will produce a wetland hydroperiod, create hydric soils, and support the growth of hydrophytic plant species.

Critical areas[3]. As defined by RCW 36.70A.030(5), critical areas include the following areas and ecosystems: (a) wetlands; (b) areas with a critical recharging effect on aquifers used for potable water; (c) fish and wildlife habitat conservation areas; (d) frequently flooded areas; and (e) geologically hazardous areas. "Fish and wildlife habitat conservation areas" does not include such artificial features or constructs as irrigation delivery systems, irrigation infrastructure, irrigation canals, or drainage ditches that lie within the boundaries of and are maintained by a port district or an irrigation district or company. Critical areas within the shoreline jurisdiction are regulated by the SMP and not the Des Moines Municipal Code. ~~Any of those areas of the city which are subject to natural hazards or those landform features which in their natural state carry, hold, or purify water; support unique, fragile, or valuable natural resources including fish, wildlife, and other organisms and their habitat; provide flood protection; provide shoreline stabilization; provide ground water recharge; maintain stream flow; stabilize slope and shoreline bluffs; stabilize soil; and control erosion. Critical areas include the following landform features: hillsides, bluffs, erosion hazard areas, landslide hazard areas, seismic hazard areas, wetlands, streams, areas of special flood hazard, critical aquifer recharge areas, fish and wildlife habitat conservation areas, and the protective buffers necessary to protect the public health, safety, and welfare.~~

DMMC[2]. Des Moines Municipal Code.

Developable area[3]. The "site area" less the following areas:

1. Areas within a project site that are required to be dedicated for public rights-of-way;

Commented [JW18]: To provide clarity and the least confusion between GMA defined critical areas and shoreline areas, the DMMC definition has been added here which is consistent with RCW 36.70A.030(5).

Commented [JW19]: Clarifier.

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2. Environmentally critical areas and their buffers to the extent they are required by the City to remain undeveloped;
3. Areas required for storm water control facilities, including but not limited to retention/detention ponds/vaults, biofiltration swales and setbacks from such ponds and swales;
4. Areas required by the City to be dedicated or reserved as on-site recreation areas;
~~1.~~5. Other areas, excluding setbacks, required by the City to remain undeveloped.

Development[1]. A use consisting of the construction or exterior alteration of structures; dredging; drilling; dumping; filling; removal of any sand, gravel, or minerals; bulk heading; driving of piling; placing of obstructions; or any project of a permanent or temporary nature which interferes with the normal public use of the surface of the waters overlying lands subject to the act at any stage of water level. Development does not include dismantling or removing structures if there is no other associated development or re-development.

Commented [JW21]: Required by Ecology checklist 2017 (b).

Development regulations[1]. The controls placed on development or land uses by the City of Des Moines, including, but not limited to, zoning ordinances, critical areas ordinances, all portions of the SMP other than goals and policies approved or adopted under chapter 90.58 RCW, planned unit development ordinances, subdivision ordinances, and binding site plan ordinances together with any amendments thereto.

Drainage facility[3]. The system of collecting, conveying, and storing surface and storm water runoff. Drainage facilities shall include but not be limited to all surface and storm water runoff conveyance and containment facilities including streams, pipelines, channels, ditches, wetlands, closed depressions, infiltration facilities, retention/detention facilities, erosion/sedimentation control facilities, and other drainage structures and appurtenances, both natural and manmade.

Dredging[2]. The removal of earth from the bottom of a stream, bay or other water body for the purposes of deepening and/or maintaining a navigational channel or to obtain use of the bottom materials for landfill.

Drift cell[1]. Also referred to as "drift sector," or "littoral cell", meaning a particular reach of marine shore in which littoral drift may occur without significant interruption and which contains any natural sources of such drift and also accretion shore forms created by such drift.

Dwelling[3]. A building designed exclusively for residential purposes, including one-family, duplex, townhouse, and multiple dwellings, which is constructed in accordance with the city buildings and construction code of Des Moines Municipal Code, but not including hotels or motel units having no kitchens.

Ecological functions[1]. Also referred to as "shoreline functions," meaning 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.

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Ecosystem-wide processes[1]. The suite of naturally occurring physical and geologic processes of erosion, transport, and deposition; and specific chemical processes that shape landforms within a specific shoreline ecosystem and determine both the types of habitat and the associated ecological functions.

Endangered and threatened species, federally designated[2]. Those fish and wildlife species identified by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that are in danger of extinction or threatened to become endangered. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service should be consulted for current listing status.

Endangered, threatened, and sensitive species, state designated[3]. Those fish and wildlife species native to the state of Washington identified by the Washington Department of Fish and Wildlife, that are in danger of extinction, threatened to become endangered, vulnerable, or declining and are likely to become endangered or threatened in a significant portion of their range within the state without cooperative management or removal of threats. State designated endangered, threatened, and sensitive species are periodically recorded in WAC 232-12-014 (state endangered species) and WAC 232-12-011 (state threatened and sensitive species). The state Department of Fish and Wildlife maintains the most current listing and should be consulted for current listing status. This section shall not apply to hair seals and sea lions that are threatening to damage or are damaging commercial fishing gear being utilized in a lawful manner or when said mammals are damaging or threatening to damage commercial fish being lawfully taken with commercial gear.

Enhancement, wetlands[3]. The manipulation of the physical, chemical, or biological characteristics of a wetland site to heighten, intensify, or improve specific function(s) or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, floodwater retention, or wildlife habitat. Enhancement results in a change in some wetland functions and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres. Activities typically consist of planting vegetation, controlling nonnative or invasive species, modifying site elevations or the proportion of open water to influence hydroperiods, or some combination of these activities.

~~**Environmentally sensitive areas**[3]. Any of those areas of the city which are subject to natural hazards or those landform features which in their natural state carry, hold, or purify water; support unique, fragile, or valuable natural resources including fish, wildlife, and other organisms and their habitat; provide flood protection; provide shoreline stabilization; provide ground water recharge; maintain stream flow; stabilize slope and shoreline bluffs; stabilize soil; and control erosion. Environmentally sensitive areas include the following landform features: hillsides, wetlands, streams, areas of special flood hazard, critical aquifer recharge areas, fish and wildlife habitat conservation areas, and the protective buffers necessary to protect the public health, safety, and welfare, each as defined in this chapter.~~

Environmentally Critical Areas[3]. See "Critical areas."

Erosion hazard areas[3]. Areas identified by the U.S. Department of Agriculture's Natural Resources Conservation Service as having a "moderate to severe," "severe," or "very severe" rill and inter-rill erosion hazard. Erosion hazard areas are also those areas impacted by shore land and/or

Commented [JW22]: Moved from below.

Commented [JW23]: No longer in the DMMC.

Commented [JW24]: Added from the DMMC.

Commented [JW25]: This is no longer in the DMMC and leaving it here would only add confusion.

Commented [JW26]: Taken from the DMMC and is good for clarification.

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stream bank erosion and those areas within a river's channel migration zone.~~designated by the "King County Sensitive Areas Map Folio" which, according to the United States Department of Agriculture Soil Conservation Service Soil Survey, King County Area Washington issued November 1973, have severe to very severe erosion hazard potential. These soil map units include Alderwood gravely sandy loam (AgD), Alderwood-Kitsap soil (AkF), Kitsap silt loam (KpD), and Coastal beaches (Cb).~~

Commented [JW27]: Updated with current DMMC definition.

Essential public facilities[3]. ~~Public facilities that are typically difficult to site, such as airports, state education facilities, and state or regional transportation facilities as defined in RCW 47.06.140, state and local correctional facilities, solid waste handling facilities, and in-patient facilities including substance abuse facilities, mental health facilities, group homes, and secure community transition facilities as defined in RCW 71.09.020.~~ Those facilities that are typically difficult to site, as defined in RCW 36.70A.200 and WAC 365-196-560, such as airports, state education facilities and state or regional transportation facilities as defined in RCW 47.06.140, regional transit authority facilities as defined in RCW 81.112.020, state and local correctional facilities, solid waste handling facilities, and inpatient facilities including substance abuse facilities, mental health facilities, group homes, and secure community transition facilities as defined in RCW 71.09.020.

Commented [JW28]: Updated with current DMMC definition.

Exempt developments[1]. Those development activities set forth in Chapter 7 of the Des Moines SMP which are not required to obtain a Substantial Development Permit but which must otherwise comply with applicable provisions of the act and the SMP.

Extreme low tide[1]**.** The lowest line on the land reached by a receding tide.

Fair market value[1]**.** 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.

Feasible[1]**.** An action, such as a development project, mitigation, or preservation requirement, that meets all of the following conditions: (a) the action can be accomplished with technologies and methods that have been used in the past in similar circumstances, or studies or tests have demonstrated in similar circumstances that such approaches are currently available and likely to achieve the intended results; (b) the action provides a reasonable likelihood of achieving its intended purpose; and (c) the action does not physically preclude achieving the project's primary intended legal use.

~~**Federally designated endangered and threatened species**[3]. Those fish and wildlife species identified by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that are in danger of extinction or threatened to become endangered. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service should be consulted for current listing status.~~

Commented [JW29]: Moved up and grouped with other endangered species.

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Fill[1]**.** 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.

~~**Fish and wildlife habitat conservation area**[3]. Land management for maintaining species in suitable habitats within their natural geographic distribution so that isolated subpopulations are not created. Fish and wildlife habitat conservation areas include:~~

Commented [JW30]: Updated with current DMMC definition.

1. ~~Areas with which endangered, threatened, and sensitive species have a primary association;~~
2. ~~Habitats and species of local importance;~~
3. ~~All public and private tidelands or bedlands suitable for commercial or recreational shellfish harvest;~~
4. ~~Kelp and eelgrass beds identified by the Washington Department of Natural Resources;~~
5. ~~Herring and smelt spawning areas as outlined in chapter 220-110 WAC and the Puget Sound Environmental Atlas as presently constituted or as may be subsequently amended;~~
6. ~~Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat;~~
7. ~~Waters of the state as defined in Title 222 WAC;~~
8. ~~Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity; and~~
9. ~~State natural area preserves and natural resource conservation areas as defined, established, and managed by the Washington Department of Natural Resources.~~

Fish and wildlife habitat conservation[3]. Land management for maintaining species in suitable habitats within their natural geographic distribution so that isolated subpopulations are not created. Fish and wildlife habitat conservation areas include:

Commented [JW31]: Updated with current DMMC definition.

1. Areas with which state or federally designated endangered, threatened, and sensitive species have a primary association;
2. State priority habitats and areas associated with state priority species;
3. Habitats and species of local importance;
4. Commercial and recreational shellfish areas;
5. Kelp and eelgrass beds identified by the Washington Department of Natural Resources;
6. Herring and smelt spawning areas as outlined in chapter 220-110 WAC and the Puget Sound Environmental Atlas as presently constituted or as may be subsequently amended;
7. Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat;
8. Waters of the state as defined in Title 222 WAC;

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9. Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity;
10. State natural area preserves and natural resource conservation areas as defined, established, and managed by the Washington State Department of Natural Resources;
11. Areas of rare plant species and high quality ecosystems as identified by the Washington State Department of Natural Resources through the Natural Heritage Program; and
12. Land useful or essential for preserving connections between habitat blocks and open spaces as determined by the City Manager or the City Manager's designee.

Flood plain[1]**.** Synonymous with one hundred-year flood plain, meaning that land area susceptible to inundation with a one percent chance of being equaled or exceeded in any given year. The limit of this area shall be based upon flood ordinance regulation maps or a reasonable method which meets the objectives of the act.

Forest management practices[2]**.** Those methods used for the protection, production and cutting of timber or bush.

Geologically hazardous ~~areas~~[4]**areas**[3]. Areas that because of their susceptibility to erosion, sliding, earthquake, or other geological events are not suited to the siting of commercial, residential, or industrial development consistent with the public health or safety concerns.

(a) Erosion hazard;

(b) Landslide hazard;

(c) Seismic hazard; and

(d) Other geological events including tsunamis, mass wasting, debris flows, rock falls, and differential settlement.~~Erosion hazard areas, landslide hazard areas, or seismic hazard areas as defined by the SMP.~~

Commented [JW32]: Updated with current DMMC definition.

Geologically unstable~~2~~[4]**.** The relative instability of a shoreform or land form for development purposes over the long term or the intended life of any proposed structure. Soil, slope, ground or surface water, other geologic conditions, vegetation and effects of development are common factors that contribute to instability. Areas characterized by banks or bluffs composed of unconsolidated alluvial or glacial deposits (till and drift material), or bluffs composed of unconsolidated alluvial or glacial deposits (till and drift material), severely fractured bedrock, active and substantial erosion, substantially deformed trees and shrubs, or active or inactive earth slides are likely to be considered geologically unstable.

Geotechnical report[1]**.** Also referred to as a "geotechnical analysis," meaning 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 the proposed development on geologic conditions, the adequacy of the site to be developed, the impacts of the proposed development, alternative approaches to the proposed development, and measures to mitigate potential site-specific and cumulative geological and

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hydrological impacts of the proposed development, including the 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.

Grade~~, average level~~[3]. The average of the finished ground level at the center of all exterior walls of a building. In case walls are parallel to and within five feet of a sidewalk, the sidewalk shall be considered the finished ground level.

Commented [JW33]: Updated to be consistent with the DMMC.

Grading[1]. The movement or redistribution of the soil, sand, rock, gravel, sediment, or other material on a site in a manner that alters the natural contour of the land.

Groins[2]. Wall-like structures built seaward from the shore to build or preserve an accretion beach by trapping littoral sand drift on the updraft side.

Ground water[~~2~~3]. All water that exists beneath the land surface or beneath the bed of any stream, lake or reservoir, or other body of surface water within the boundaries of the state, whatever may be the geological formation of structure in which such water stands or flows, percolates, or otherwise moves (RCW 90.44).

Commented [JW34]: Not in the DMMC.

Growth Management Act (GMA)[1]. The State of Washington Growth Management Act, (RCW 36.70A).

Guidelines[1]. Those standards adopted to implement the policy of this chapter for regulation of use of the shorelines of the state prior to adoption of master programs. Such standards shall also provide criteria to local governments and the department in developing master programs.

Habitat[~~2~~4]. The place or type of site where a plant or animal naturally or normally lives and grows.

Habitat of local importance[~~2~~4]. A seasonal range or habitat element with which a given species has a primary association, and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long-term. Such areas may include areas of high relative density or species richness, breeding habitat, winter range, and movement corridors, and areas of limited availability or high vulnerability to alteration, such as bluffs, talus, and wetlands.

Hazardous substance[3]. Any solid, liquid, gas, or sludge, including any material, substance, product, commodity, or waste, regardless of quantity, that exhibits any characteristics or criteria of hazardous waste as described in WAC 173-303-090, 173-303-101, 173-303-102, or 173-303-103.

Hazardous waste[3]. Those solid wastes designated by 40 C.F.R. Part 261, and regulated as hazardous and/or mixed waste by the United States EPA, as described in WAC 173-303-040.~~Any dangerous waste or extremely hazardous waste. Moderate risk waste is not a hazardous waste.~~

Commented [JW35]: Updated with current DMMC definition.

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Height[1]**.** Distance measured from average grade level to the highest point of a structure, provided that television antennas, chimneys, and similar appurtenances shall not be used in calculating height, except where such appurtenances obstruct the view of the shoreline of a substantial number of residences on areas adjoining such shorelines. Provided further that temporary construction equipment is excluded in this calculation.

Hillsides[3]. Geological features of the landscape having slopes of 15 percent and greater. To differentiate between levels of hillside protection and the application of development standards, the Ceity categorizes hillsides into four groups: hillsides of at least 15 percent but less than 25 percent; hillsides of at least 25 percent but less than 40 percent; hillsides of 40 percent slope and greater; and hillsides which are ravine sidewalls or bluffs.

Historic Properties Survey: City of Des Moines[3]**.** The Historic Properties Survey: City of Des Moines as prepared on October 14, 1994 for the city of Des Moines. A copy of this survey is maintained on file in the office of the city clerk and in the office of the community development director and is available for public inspection.

Hotel[3]**.** A building in which there are six or more guest rooms where lodging with or without meals is provided for compensation, and where no provision is made for cooking in any individual room or suite, and in which building may be included one apartment for use of the resident manager, but shall not include jails, hospitals, asylums, sanitariums, orphanages, prisons, detention homes, and similar buildings where human beings are housed or detained under legal restraint.

Hydraulic Project approval (HPA)[32]**.** A permit issued by the State Department of Fish and Wildlife for modifications to waters of the state in accordance with Chapter 75.20 RCW.

Commented [JW36]: Not in DMMC.

Impervious surface[24]**.** A hard surface area that either prevents or retards the entry of water into the soil mantle. Common impervious surfaces include, but are not limited to, roof tops, walkways, patios, driveways, parking lots, or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials and other surfaces.

In-stream structure[1]. A structure placed by humans within a stream or river waterward of the ordinary high-water mark that either causes or has the potential to cause water impoundment or the diversion, obstruction, or modification of water flow. In-stream structures may include those for flood control, transportation, utility service transmission, fish habitat enhancement, or other purpose.

Jetties[2]**.** Structures generally built singly or in pairs perpendicular to the shore at harbor entrances or river mouths to prevent the shoaling or accretion of littoral sand drift. Jetties also protect channels and inlets from storm waves and cross currents.

King County Sensitive Areas Map Folio[2]. A series of maps prepared by King County delineating Class III landslide hazard areas, Class III seismic hazard areas, erosion hazard areas, wetlands, anadromous fish-bearing waters, 100-year flood plains, and water types. A copy of this

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folio and unscreened maps of Area No. 5 are stored at the city department of community development.

King County Wetland Inventory Notebook[2]. A study conducted by the King County planning division in 1983 to inventory wetlands county-wide. The results of the wetlands inventory are summarized in a three-volume notebook. The notebook shows the location of wetlands mapped in the inventory and identifies each with a two-digit number which links it to collected data. Each wetland is assigned one of three wetland ratings determined by examining the scores of selected inventory tasks, specific data, and percentile rankings for various categories.

Land Use Intensity[3]. The following definitions of "land use intensity" serve as the basis for establishing wetland buffers and development standards as codified in this SMP.

1. "High intensity land use" means land uses which are associated with high levels of human disturbance or substantial habitat impacts including, but not limited to, medium- and high-density residential (more than one home per five acres), multifamily residential, and commercial and industrial land uses. The majority of land uses in Des Moines are considered "high intensity land use."

2. "Moderate intensity land use" means land uses which are associated with moderate levels of human disturbance or substantial habitat impacts including, but not limited to, active recreation.

~~1.~~3. "Low intensity land use" means land uses which are associated with low levels of human disturbance or low habitat impacts, including, but not limited to, passive recreation and open space land uses.

Commented [JW37]: Connected to the definition of wetlands. Taken from Title 18 DMMC.

Commented [JW38]: Replaced DMMC reference.

Landslide[3]. An episodic downslope movement of a mass of soil or rock that includes but is not limited to rockfalls, slumps, mudflows, and earthflows.

Landslide hazard area[3]**.** Those areas of the city potentially subject to landslides based on a combination of geologic, topographic, and hydrologic factors. They include areas susceptible because of any combination of bedrock, soil, slope (gradient), slope aspect, structure, hydrology, or other factors. Examples of these may include, but are not limited to, the following:

1. Areas of historic failures, such as:
   a. Those areas delineated by the U.S. Department of Agriculture's Natural Resources Conservation Service as having a "severe" limitation for building site development;
   b. Those areas mapped by the Washington State Department of Ecology (Coastal Zone Atlas) or the Washington State Department of Natural Resources (slope stability mapping) as unstable (U or class 3), unstable old slides (UOS or class 4), or unstable recent slides (URS or class 5); or
   c. Areas designated as quaternary slumps, earthflows, mudflows, lahars, or landslides on maps published by the U.S. Geological Survey or Washington State Department of Natural Resources;
2. Any area with a combination of:

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a. Slopes greater than 15 percent;
b. Impermeable soils (usually silt and clay) frequently interbedded with granular permeable soils (usually sand and gravel); and
c. Springs or ground water seepage.

3. Any area which has shown movement during the Holocene epoch (from 10,000 years ago to present) or which is underlain by mass wastage debris of that age.
4. Any area potentially unstable as a result of rapid stream incision, stream bank erosion, or undercutting by wave action.
5. Any area designated as Class III landslide hazard area by the "Map Showing Relative Slope Stability in Part of West-Central King County, Washington, Map I-852-A, U.S., Geological Survey Miscellaneous Geologic Investigations" as presently constituted or as may be subsequently amended;
6. Slopes that are parallel or subparallel to planes of weakness (such as bedding planes, joint systems, and fault planes) in subsurface materials;
7. Slopes having gradients steeper than 80 percent subject to rock fall during seismic shaking;
8. Areas located in a canyon or on an active alluvial fan, presently or potentially subject to inundation by debris flows or catastrophic flooding; and
9. Any area with a slope of 40 percent or steeper and with a vertical relief of 10 or more feet except areas composed of consolidated rock. A slope is delineated by establishing its toe and top and is measured by averaging the inclination over at least 10 feet of vertical relief.

Large-scale[2]**.** The construction of four (4) dwelling units or more, construction of four thousand (4,000) square feet of commercial space, or other "actions" as defined by WAC 197-11, State Environmental Policy Act Rules.

Littoral drift[2]. Sediments moved in an indefinite zone extending from the shoreline to just beyond the breaker zone by waves and currents.

Lot[2]. A building site that is described by reference to a recorded plat, by metes and bounds, or by section, township, and range which has direct legal access to a street or has access to a street over an easement approved by the city.

Lower bank[2~~3~~]. The intermittently submerged portion of the stream cross-section which extends from the ordinary high water line to the water's edge during the summer low flow period.

Commented [JW39]: Not in the DMMC.

Marina[2]. Facility for land/water transfer that provides launching, storage, moorage supplies and service for pleasure boats, as well as parking areas for automobiles.

Marine[1]. Pertaining to tidally influenced waters, including Puget Sound and the bays, estuaries and inlets associated therewith.

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Marine buffer[4]. The marine buffer, also referred to as the shoreline buffer, is the area that development, shoreline modifications, and uses are not permitted, as established in each shoreline environment. The City's buffer is based on Des Moines' shoreline ecological functions, development patterns, and anticipated preferred uses. A buffer of 115 feet from the marine ordinary high water mark (OHWM) has been established in the City's Urban Conservancy and Shoreline Residential environments. The buffer's purpose is to protect human health and safety and to protect and restore the shoreline corridor's ecological functions and eco-system-wide processes. The buffer offers a variety of benefits to the natural and human-built environments. In general, buffers benefit the natural environment by protecting or improving water quality, providing habitat for wildlife, and attenuating water flow, reducing the chances of flooding and erosion. For the human-built environment, buffers and setbacks protect structures from damage by assuring they are a safe distance from erosive bluffs, channel migration zones, flooding, wave action and storms. Buffers and setbacks also can help protect views of the water from structures by assuring that nearby structures are adequately set back. Protecting native vegetation along the shoreline enhances property values by stabilizing slopes, screening adjacent development from view, providing attractive landscaping and habitat and blocking noise and glare from adjacent properties.

Commented [JW40]: No standard definition found for marine buffer or shoreline buffer.

Commented [JW41]: Often referred to outside this SMP.

Commented [JW42]: Taken from Seattle's definition of "shoreline setback".

Commented [JW43]: From Chapter 11 of Ecology's SMP Handbook, Publication Number 11-06-010.

Commented [JW44]: From SMP 6.1.1

Commented [JW45]: From Chapter 11 of Ecology's SMP Handbook, Publication Number 11-06-010.

Mining[2]. The removal of naturally occurring materials from the earth for economic use.

Mitigation[3]~~3~~. The use of any combination or all of the following actions:

1. Avoiding impacts to environmentally critical areas by not taking a certain action or parts of an action;
2. 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;
3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environmentally critical area;
4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the development proposal;
5. Compensating for the impact by replacing or enhancing environmentally critical areas, or providing substitute resources; and
6. Monitoring the impact and taking appropriate corrective measures.

Monitoring[3]. The collection and analysis of data by various methods for the purposes of understanding and documenting changes in natural ecosystems and features, and includes gathering baseline data, evaluating the impacts of development proposals on the biological, hydrologic, and geologic elements of such systems, and assessing the performance of mitigation measures.

Native vegetation[3]. Plant species which are indigenous to the area in question.

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Nearshore[1]**.** References to nearshore environment or nearshore habitat refer generally to an area along the Puget Sound shoreline that extends from the top of bluffs or upland area immediately adjacent to the beach to the point where sunlight penetrates the Sound's water.

Nonconforming ~~building~~[3]**development or structure**[1]. A~~-~~n existing structure that was lawfully constructed at the time it was built but is no longer fully consistent with present regulations such as setbacks, buffers or yards; area; bulk; height or density standards due to subsequent changes to the master program.~~building, or portion thereof, which was lawfully erected or altered and maintained but which, because of the application of this Program to it, no longer conforms to the regulations of the zone in which it is located as defined by this Program.~~

Commented [JW46]: Updated pursuant to WAC 173-27-080.

Nonconforming lot[1]. A lot that met dimensional requirements of the applicable master program at the time of its establishment but now contains less than the required width, depth or area due to subsequent changes to the master program.

Commented [JW47]: Updated pursuant to WAC 173-27-080.

Nonconforming use~~ or development~~[1]. An existing shoreline use that was lawfully established prior to the effective date of the act or the applicable master program, but which does not conform to present use regulations due to subsequent changes to the master program.~~A shoreline use or development which was lawfully constructed or established prior to the effective date of the act or the applicable SMP, or amendments thereto, but which does not conform to present regulations or standards of the SMP.~~

Commented [JW48]: Updated pursuant to WAC 173-27-080.

Nonwater-oriented uses[1]**.** Those uses that are not water-dependent, water related or water enjoyment.

Normal Maintenance[2]. Those usual acts to prevent a decline, lapse-or cessation from a lawfully established condition.

Normal Repair[2]. To restore a development to a state comparable to its original condition within a reasonable time period after decay or partial destruction except where repair involves total replacement which is not common practice or causes substantial adverse effects to the shoreline resource or environment.

Ordinary High Water Mark (OHWM)[2]**.** The mark on all tidal waters and streams that will be found by examining the beds and banks and ascertaining where the presence and action of waters are so common and usual and so long continued in all ordinary years as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation, as that condition existed on June 1, 1971, as it may naturally change thereafter, or as it may change thereafter in accordance with permits issued by a local government or the Department of Ecology. In any area where the ordinary high water mark cannot be found, the ordinary high water mark adjoining saltwater shall be the line of mean higher high tide.

Overlay Zone[2]**.** A set of zoning requirements described in the Zoning Code, mapped, and subsequently imposed in addition to those of the underlying district.

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Party of record[24]**.** All persons, agencies or organizations who have submitted written comments in response to a notice of application; made oral comments in a formal public hearing conducted on the application; or notified local government of their desire to receive a copy of the final decision on a permit and who have provided an address for delivery of such notice by mail.

Permit[1]**.** Any shoreline substantial development, shoreline variance, shoreline conditional use permit, or revision authorized under chapter 90.58 RCW.

Pier[2]. A structure built out over the water and supported by pillars or piles used as a landing place, viewing or other recreational platform.

Ports and related industry[2.] Facilities constructed for the purpose of commercially transporting, loading and unloading goods or for commercial storage, excluding recreational boating facilities and ancillary uses.

Priority habitat[1]**.** A habitat type with unique or significant value to one or more species. An area classified and mapped as priority habitat must have one or more of the following attributes: comparatively high fish or wildlife density; comparatively high fish or wildlife species diversity; fish spawning habitat; important wildlife habitat; important fish or wildlife seasonal range; important fish or wildlife movement corridor; rearing and foraging habitat; important marine mammal haul-out; refugia habitat; limited availability; high vulnerability to habitat alteration; unique or dependent species; or shellfish bed. A priority habitat may be described by a unique vegetation type or by a dominant plant species that is of primary importance to fish and wildlife (such as oak woodlands or eelgrass meadows). A priority habitat may also be described by a successional stage (such as, old growth and mature forests). Alternatively, a priority habitat may consist of a specific habitat element (such as a consolidated marine/estuarine shoreline, talus slopes, caves, snags) of key value to fish and wildlife. A priority habitat may contain priority and/or nonpriority fish and wildlife.

Priority species[1]**.** Species requiring protective measures and/or management guidelines to ensure their persistence at genetically viable population levels. Priority species are those that meet any of the criteria listed below.

1. *Criterion 1*. State-listed or state proposed species. State-listed species are those native fish and wildlife species legally designated as endangered (WAC 232-12-014), threatened (WAC 232-12-011), or sensitive (WAC 232-12-011). State proposed species are those fish and wildlife species that will be reviewed by the department of fish and wildlife (POL-M-6001) for possible listing as endangered, threatened, or sensitive according to the process and criteria defined in WAC 232-12-297.
2. *Criterion 2*. Vulnerable aggregations. Vulnerable aggregations include those species or groups of animals susceptible to significant population declines, within a specific area or statewide, by virtue of their inclination to congregate. Examples include heron colonies, seabird concentrations, and marine mammal congregations.
3. *Criterion 3*. Species of recreational, commercial, and/or tribal importance. Native and nonnative fish, shellfish, and wildlife species of recreational or commercial importance

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and recognized species used for tribal ceremonial and subsistence purposes that are vulnerable to habitat loss or degradation.

4. *Criterion 4*. Species listed under the federal Endangered Species Act as either proposed, threatened, or endangered.

Provisions[1]**.** Policies, regulations, standards, guideline criteria or environment designations of the Des Moines SMP.

Public Access[2]**.** The public's ability to get to and use the State's public waters, the water/land interface and associated public shoreline area.

Public Hearing[3]. A hearing, conducted by either the H~~h~~earing E~~e~~xaminer or the city council, that creates a record through testimony and the submission of evidence and information under procedures prescribed by law. An open record public hearing held prior to a decision on a proposed land use action is to be known as an "open record pre-decision hearing." An open record hearing may be held on an appeal, to be known as an "open record appeal hearing" if no open record pre-decision hearing has been held on the land use action.

Public interest[1]**.** The interest shared by the citizens of the state or community at large in the affairs of government, or some interest by which their rights or liabilities are affected including, but not limited to, an effect on public property or on health, safety, or general welfare resulting from a use or development.

Public utility[3]**.** A private business organization such as a public service corporation performing some public service and subject to special governmental regulations, or a governmental agency performing similar public services, the services by either of which are paid for directly by the recipients thereof. Such services shall include, but are not limited to, water supply, electric power, gas, and transportation for persons and freight.

Qualified professional[3]. A person with experience and training in the pertinent scientific discipline, and who is a qualified scientific expert with expertise appropriate for the relevant environmentally critical area subject in accordance with WAC 365-195-905(4). A qualified professional must have obtained a B.S. or B.A. or equivalent degree in biology, engineering, environmental studies, fisheries, geomorphology, or related field, and two years of related work experience.

1. A qualified professional for habitats must have a degree in biology and professional experience related to the subject species.
2. A qualified professional for wetlands must have a degree in biology, must have taken a wetlands delineation course approved by the Army Corps of Engineers, and must have professional experience.
3. A qualified professional for a geological hazard must be a professional engineer or geologist, licensed in the state of Washington.

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

Ravine sidewall[3]. A steep slope which abuts and rises from the valley floor of a stream and which was created by the wearing action of the stream. Ravine sidewalls contain slopes predominantly in excess of 40 percent, although portions may be less than 40 percent. The toe of a ravine sidewall is the stream valley floor. The top of a ravine sidewall is typically a distinct line where the slope abruptly levels out. Where there is no distinct break in slope, the top is where the slope diminishes to less than 15 percent. Minor natural or manmade breaks in the slope of ravine sidewalls shall not be considered as the top. Benches with slopes less than 15 percent and containing developed or developable areas pursuant to chapter 16.10 DMMC shall be considered as the top.

Commented [JW49]: Added from the DMMC.

RCW[2]**.** Revised Code of Washington state statute.

Recreational development[~~2~~4]**.** Development that serves commercial or noncommercial recreational uses on public or private land.

Residence[3]**.** A building or structure, or portion thereof, which is designed for and used to provide a place of abode for human beings, but not including hotels or motel units having no kitchens. The term "residence" includes the term "residential" as referring to the type of or intended use of a building or structure.

Restoration[1]**.** In the context of "ecological restoration," the reestablishment or upgrading of impaired ecological shoreline processes or functions. This may be accomplished through measures including, but not limited to, revegetation, removal of intrusive shoreline structures and removal or treatment of toxic materials. Restoration does not imply a requirement for returning the shoreline area to aboriginal or pre-European settlement conditions.

Revetment[~~2~~4]. A sloped wall constructed of riprap or other suitable material placed on stream banks or other shorelines to retard bank erosion and minimize lateral stream movement.

Riprap[2]**.** A layer, facing or protective mound of stones randomly placed to prevent erosion, scour or sloughing of a structure or embankment; also, the stone so used.

SMP[1]**.** Shoreline Master Program. The comprehensive use plan for shorelines of the state, and the use regulations together with maps, diagrams, charts, or other descriptive material and text, a statement of desired goals, and standards developed in accordance with the policies enunciated in RCW 90.58.020.

SMA[1]. Shoreline Management Act.

Seismic hazard areas[3]. Those areas subject to severe risk of earthquake damage as a result of seismically induced ground shaking, slope failure, settlement, soil liquefaction, lateral spreading, or surface faulting. One indicator of potential for future earthquake damage is a record of

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earthquake damage in the past. Ground shaking is the primary cause of earthquake damage in Washington. The strength of ground shaking is affected primarily by:

1. The magnitude of an earthquake;
2. The distance from the source of an earthquake;
3. The type of thickness of geologic materials at the surface; and
4. The type of subsurface geologic structure.

Settlement and soil liquefaction conditions occur in areas underlain by cohesionless, loose, or soft-saturated soils of low density usually in association with a shallow ground water table. Known seismic hazard areas are mapped in the "Washington State Department of Natural Resources, Geologic Map GM-41, Liquefaction Susceptibility for the Des Moines and Renton 7.5-minute Quadrangles, Washington," and "Washington State Department of Natural Resources, Geologic Map GM-43, Liquefaction Susceptibility for the Auburn and Poverty Bay 7.5-minute Quadrangles, Washington."~~areas subject to severe risk of earthquake damage as a result of seismically induced settlement or soil liquefaction. These conditions occur in areas underlain by cohesionless soils of low density usually in association with a shallow ground water table. Known seismic hazard areas are mapped in the "King County Sensitive Areas Map Folio."~~

Commented [JW50]: Updated with current DMMC definition.

Shall[1]. A mandate; the action must be done.

Shorelands[1]**.** Also referred to as "shoreland areas," meaning those lands extending landward for two hundred feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward two hundred feet from such floodways; and all wetlands and river deltas associated with the streams, lakes, and tidal waters which are subject to the provisions of this chapter; the same to be designated as to location by the department of ecology.

Shoreline administrator[1]**.** The shoreline administrator shall be the City Manager or his or her designee and is responsible for administering the Des Moines SMP.

Shoreline jurisdiction[1]**.** All "shorelines of the state" and "shorelands" as defined in the Des Moines SMP and RCW 90.58.030.

Shoreline master program[1] **(**SMP**).** The comprehensive use plan for a described area, and the use regulations together with maps, diagrams, charts, or other descriptive material and text, a statement of desired goals, and standards developed in accordance with the policies enunciated in RCW 90.58.020.

Shoreline modifications[1]**.** Those actions that modify the physical configuration or qualities of the shoreline area, usually through the construction of a physical element such as a dike, breakwater, pier, weir, dredged basin, fill, bulkhead, or other shoreline structure. They can include other actions, such as clearing, grading, or application of chemicals.

Shorelines[1]**.** All of the water areas of the state, including reservoirs, and their associated shorelands, together with the lands underlying them; except (i) shorelines of statewide

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significance; (ii) shorelines on segments of streams upstream of a point where the mean annual flow is twenty cubic feet per second or less and the wetlands associated with such upstream segments; and (iii) shorelines on lakes less than twenty acres in size and wetlands associated with such small lakes.

Shorelines of Statewide Significance[2]**.** Those areas of Puget Sound in the City of Des Moines lying seaward from the line of extreme low tide.

Shorelines of the state[1]**.** The total of all "shorelines" and "shorelines of statewide significance" within the City of Des Moines.

Should[1]**.** Indicates the particular action is required unless there is a demonstrated, compelling reason, based on policy of the SMA and the Des Moines SMP, against taking the action.

Significant vegetation removal[1]**.** The removal or alteration of trees, shrubs, and/or ground cover by clearing, grading, cutting, burning, chemical means, or other activity that causes significant ecological impacts to functions provided by such vegetation. The removal of invasive or noxious weeds does not constitute significant vegetation removal. Tree pruning, not including tree topping where it does not affect ecological functions, does not constitute significant vegetation removal.

Slope[3]. An inclined ground surface, the inclination of which is expressed as a ratio (percentage) of vertical distance to horizontal distance by the following formula:

Commented [DL51]: From Title 18 definitions.

$$\frac{\text{vertical distance}}{\text{horizontal distance}} \times 100 = \text{\% slope}$$

Another method of measuring the inclination of the land surface is by measuring the angle, expressed in degrees, of the surface above a horizontal plane. The following chart shows the equivalents between these two methods of measurement for several slopes:

Percent Slope	Angle of Inclination
8.7	5.0°
15.0	8.5°
25.0	14.0°
30.0	16.7°
40.0	21.8°
50.0	26.6°

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Percent Slope	Angle of Inclination
100.0	45.0°

Special environmental study[3]**.** A technical report prepared by a qualified professional. Special environmental studies are intended to evaluate past and present environmental conditions of certain properties, potential environmental impacts associated with certain development proposals, and as appropriate, recommend mitigation measures that can be expected to lessen the severity of identified adverse environmental impacts. The content and scope of required special environmental studies shall be as specified by the C~~c~~ommunity D~~d~~evelopment D~~d~~irector.

Stream[3]. An area where surface waters flow sufficiently to produce a defined channel or bed. A defined channel or bed is indicated by hydraulically sorted sediments or the removal of vegetative litter or loosely rooted vegetation by the action of moving water. Stream channels or beds show clear evidence of the passage of water and include, but are not limited to, bedrock channels, gravel beds, sand and silt beds, and defined channel swales. The channel or bed need not contain water year-round. This definition is not meant to include irrigation ditches, canals, storm or surface water runoff devices, or other entirely artificial watercourses unless they are used by salmonids or used to convey streams naturally occurring prior to construction. Swales, which are shallow drainage conveyances with relatively gentle side slopes and generally with flow depths less than one foot, shall be considered streams when hydrologic and hydraulic analyses done pursuant to a development proposal predict formation of a defined channel after development. To differentiate between levels of stream and marine shoreline protection and the application of development standards, streams are classified according to the Washington State Department of Natural Resources Forest Practices Board water typing system specified in WAC 222-16-030 as follows:

1. "Type S water" means all waters inventoried as "shorelines of the state," including periodically inundated areas of their associated wetlands, under chapter 90.58 RCW and the rules promulgated pursuant to chapter 90.58 RCW;
2. "Type F water" means segments of natural waters other than Type S waters, which contain fish or fish habitat, including waters diverted for use by a federal, state or tribal fish hatchery from the point of diversion for 1,500 feet or the entire tributary if the tributary is highly significant for protection of downstream water quality;
3. "Type Np water" means all segments of natural waters that are not Type S or F waters. These are perennial nonfish habitat streams that are physically connected to Type S or F waters by an aboveground channel system, stream or wetland. Perennial streams are waters that do not go dry any time of a year of normal rainfall. However, for the purpose of water typing, Type Np waters include the intermittent dry portions of the perennial channel below the uppermost point of perennial flow;
4. "Type Ns water" means all segments of natural waters that are not Type S, F, or Np waters. These are seasonal, nonfish habitat streams in which surface flow is not present for at least some portion of a year of normal rainfall and are not located

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downstream from any stream reach that is a Type Np water. Ns waters must be physically connected by an aboveground channel system to Type S, F, or Np waters.

Stream corridor[3]. A perennial, intermittent, or ephemeral stream including its channel bottom, lower and upper banks, area beyond the top of the upper bank which influences the stream and is influenced by the presence of water, and the vegetation inhabiting this area. This area is known as the "riparian zone" which is an area transitional between aquatic and terrestrial (upland) ecosystems having distinct vegetation and soil characteristics. Riparian zones are most commonly recognized by bottomland, flood plain, and streambank vegetation. In developed watersheds, portions of the stream corridor may currently be in a partially culverted or channelized condition by artificial conveyance systems.

Streambed[2]. The channel of a river or other watercourse and adjacent land areas that are inundated with flood waters during a 100-year flood.

Structure[1]. 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.

Substantial development[1]. Any development of which the total cost or fair market value exceeds ~~five thousand seven hundred eighteen~~seven thousand and forty seven dollars, or any development which materially interferes with the normal public use of the water or shorelines of the state. The dollar threshold established in this subsection (3)(e) must be adjusted for inflation by the office of financial management every five years, beginning July 1, 2007, based upon changes in the consumer price index during that time period. "Consumer price index" means, for any calendar year, that year's annual average consumer price index, Seattle, Washington area, for urban wage earners and clerical workers, all items, compiled by the bureau of labor and statistics, United States department of labor. The office of financial management must calculate the new dollar threshold and transmit it to the office of the code reviser for publication in the Washington State Register at least one month before the new dollar threshold is to take effect.

Substantially degrade[1]. To cause significant ecological impact.

Topography[1]. The natural or existing topography of the lot, parcel, or tract of real property immediately prior to any site preparation or grading, including excavation or filling.

Transmit[1]. To send from one person or place to another by mail or hand delivery. The date of transmittal for mailed items is the date that the document is certified for mailing or, for hand-delivered items, is the date of receipt at the destination.

Transportation facilities[2]. Physical constructs that form the means of conveying people, goods and services, including roads, highways, bridges, bikeways, trails, sidewalks, ferry terminals, other passenger terminals and other related facilities.

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Unclassified Uses[2,3]**.** A use possessing characteristics of such unique and special form as to make impractical its being made automatically and consistently permissible in any defined shoreline environment designation as set forth in this Program.

Upper bank[3]**.** That portion of the topographic cross-section of a stream which extends from the break in the general slope of the surrounding land to the normal high water line.

Use[3]**.** The nature of the occupancy, the type of activity, or the character and form of improvements to which land is devoted or may be devoted.

Variance[1]**, Shoreline**[1]**.** A means to grant relief from the specific bulk, dimensional or performance standards set forth in the applicable SMP and not a means to vary a use of a shoreline.

Variance, DMMC[3]**.** An adjustment in the application of the specific regulations of the DMMC to a particular piece of property, which property, because of special circumstances applicable to it, is deprived of privileges commonly enjoyed by other properties in the same vicinity and zone and which adjustment remedies disparity in privileges.

Vessel[1]**.** Includes ships, boats, barges, or any other floating craft which are designed and used for navigation and do not interfere with the normal public use of the water.

WAC[2]. Washington Administrative Code. Rules and regulations imposed by various State departments with legislative approval that have the force of State law.

Water-dependent use[1]**.** A use or portion of a use which cannot exist in a location that is not adjacent to the water and which is dependent on the water by reason of the intrinsic nature of its operations.

Water-enjoyment use[1]**.** A recreational use or other use that facilitates public access to the shoreline as a primary characteristic of the use; or a use that provides for recreational use or aesthetic enjoyment of the shoreline for a substantial number of people as a general characteristic of the use and which through location, design, and operation ensures the public's ability to enjoy the physical and aesthetic qualities of the shoreline. In order to qualify as a water-enjoyment use, the use must be open to the general public and the shoreline-oriented space within the project must be devoted to the specific aspects of the use that fosters shoreline enjoyment.

Water-oriented use[1]**.** A use that is water-dependent, water-related, or water-enjoyment, or a combination of such uses.

Water-related use[1]. A use or 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. The use has 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

Commented [JW52]: Not in DMMC.

Commented [JW53]: Clarifier. Distinguishes it from other variances, such as the one listed below.

Commented [JW54]: Taken from the DMMC and meant to distinguish between a Shoreline Variance.

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2. The use provides a necessary service supportive of the water-dependent uses and the proximity of the use to its customers makes its services less expensive and/or more convenient.

Water quality[1]**.** The physical characteristics of water within shoreline jurisdiction, including water quantity, hydrological, physical, chemical, aesthetic, recreation-related, and biological characteristics. Where used in this SMP, the term "water quantity" refers only to development and uses regulated under this chapter and affecting water quantity, such as impermeable surfaces and storm water handling practices. Water quantity, for purposes of this chapter, does not mean the withdrawal of ground water or diversion of surface water pursuant to RCW 90.03.250 through 90.03.340.

Watershed restoration projects[1]**.** A public or private project authorized by the sponsor of a watershed restoration plan that implements the plan or a part of the plan and consists of one or more of the following activities:

1. A project for the restoration of an eroded or unstable stream bank that employs the principles of bioengineering, including limited use of rock as a stabilization only at the toe of the bank, and with primary emphasis on using native vegetation to control the erosive forces of flowing water; or
2. A project primarily designed to improve fish and wildlife habitat, remove or reduce impediments to migration of fish, or enhance the fishery resource available for use by all of the citizens of the state, provided that any structure, other than a bridge or culvert or instream habitat enhancement structure associated with the project, is less than two hundred square feet in floor area and is located above the ordinary high water mark of the stream; or
3. A project that involves less than ten miles of streamreach, in which less than twenty-five cubic yards of sand, gravel, or soil is removed, imported, disturbed or discharged, and in which no existing vegetation is removed except as minimally necessary to facilitate additional plantings.

Watershed restoration plan[1]**.** A plan, developed or sponsored by the department of fish and wildlife, the department of ecology, the department of natural resources, the department of transportation, a federally recognized Indian tribe acting within and pursuant to its authority, a city, a county, or a conservation district that provides a general program and implementation measures or actions for the preservation, restoration, recreation, or enhancement of the natural resources, character, and ecology of a stream, stream segment, drainage area, or watershed for which agency and public review has been conducted pursuant to chapter 43.21C RCW, the State Environmental Policy Act.

Wetland[3]. An area inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage

Commented [JW55]: Updated with current DMMC definition.

KEY: 1. RCW or WAC 2. ~~1988~~ 2010 SMP Glossary 3. ~~City Zoning~~Des Moines Municipal Code4. New Definition

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ditches, grass-lined swales, canals, detention facilities, waste water treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created for nonwetland areas created to mitigate conversion of wetlands.~~inundated or saturated by ground or surface water at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (Army Corps of Engineers Regulation 33 CFR 323.2(c)). Wetlands and the boundaries of wetlands are those identified using the methodologies outlined in the "Washington State Wetlands Identification and Delineation Manual (Ecology Publication No. 96-94, March 1997)." Wetlands include ponds, but 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/retention facilities, farm ponds, and landscape amenities or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. However, wetlands shall include those artificial wetlands intentionally created from nonwetland areas created to mitigate conversion of wetlands pursuant to chapter 18.86 DMMC.~~

Commented [JW56]: Changed per the errata sheet.

To differentiate between levels of wetland protection and the application of development standards, wetlands shall be rated according to the "Washington State Wetland Rating System for Western Washington" (Ecology Publication No. 14-06-29, October 2014) or as revised by the Department of Ecology. Wetland rating categories shall be applied as the wetland exists at the time of the adoption of this chapter or as it exists at the time of an associated permit application. Wetland rating categories shall not change due to illegal modifications.~~To differentiate between levels of wetland protection and the application of development standards, wetlands shall be rated according to the "Washington State Wetland Rating System for Western Washington," (Ecology Publication No. 04-06-025, August 2004) or as revised by the Department of Ecology. Wetland rating categories shall be applied as the wetland exists at the time of the adoption of this chapter or as it exists at the time of an associated permit application. Wetland rating categories shall not change due to illegal modifications.~~

1. Category I. Category I wetlands represent a unique or rare wetland type, are more sensitive to disturbance than most wetlands, are relatively undisturbed and contain some ecological attributes that are impossible to replace within a human lifetime, or provide a very high level of functions. Category I wetlands are:
   a. Relatively undisturbed estuarine wetlands larger than one acre;
   b. Wetlands that have been identified by the Washington Natural Heritage Program as important ecosystems for maintaining plant diversity;
   c. Bogs;
   d. Mature and old-growth forested wetlands over one acre in size;
   e. Wetlands in coastal lagoons;
   f. Interdunal wetlands larger than one acre and score high for habitat; or

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g. Wetlands that perform functions at high levels.

2. Category II. Category II wetlands are difficult, though not impossible, to replace, and provide high levels of some functions. These wetlands occur more commonly than Category I wetlands, but they still need a relatively high level of protection. Category II wetlands are:

   a. Estuarine wetlands smaller than one acre, or those that are disturbed and larger than one acre;

   b. Wetlands with a moderately high level of functions;

   c. Interdunal wetlands larger than one acre.

3. Category III. Generally, wetlands in this category may have been disturbed in some way and are often less diverse or more isolated from other natural resources in the landscape than Category II wetlands. Category III wetlands are:

   a. Wetlands with a moderate level of functions;

   b. Can often be adequately replaced with a well-planned mitigation project; or

   c. Interdunal wetlands between one-tenth and one acre in size.

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

~~1. Category I. Category I wetlands represent a unique or rare wetland type, are more sensitive to disturbance than most wetlands, are relatively undisturbed and contain some ecological attributes that are impossible to replace within a human lifetime, or provide a very high level of functions. Category I wetlands are:~~

   ~~a. Mature forested wetlands larger than one acre; or~~

   ~~b. Wetlands that perform many functions well.~~

~~2. Category II. Category II wetlands are difficult, though not impossible, to replace, and provide high levels of some functions. These wetlands occur more commonly than Category I wetlands, but they still need a relatively high level of protection. Category II wetlands are:~~

   ~~a. Wetlands identified by the Washington State Department of Natural Resources as containing "sensitive" plant species;~~

   ~~b. Wetlands with a moderately high level of functions.~~

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3. ~~Category III. Generally, wetlands in this category may have been disturbed in some way and are often less diverse or more isolated from other natural resources in the landscape than Category II wetlands. Category III wetlands are wetlands with a moderate level of functions.~~

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

Zoning Code[2]**.** Title 18, Des Moines Municipal Code.

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