CHAPTER 3
REGULATORY REQUIREMENTS

3.1 INTRODUCTION

This chapter describes the various regulatory requirements and guidance documents that play a role in shaping both the form and content of the City's existing and future Stormwater Management Program (SWMP). These requirements include various federal, state, regional, and local regulatory requirements, laws, permits, and technical guidance documents that help define the City's various stormwater-related policies, codes, and activities. For the purpose of writing this chapter, the requirements have been grouped by their origin: federal, state, regional, and local. The City's stormwater-related regulatory requirements include compliance with the following:

Federal Laws, Permits, and Requirements

- Clean Water Act *(as administered by the Washington State Department of Ecology)*
  - Western Washington National Pollutant Discharge Elimination System Program (City's future NPDES Permit)
  - State 303d List and TMDL (Total Maximum Daily Loads)
  - Section 404 Permits (as administered by the U.S. Army Corps of Engineers)
- Endangered Species Act *(as administered by the Washington State Department of Ecology)*

State Laws, Permits, and Requirements

- Growth Management Act
- Department of Fish and Wildlife Hydraulic Code

Regional Laws, Permits, and Requirements
(as administered by special purpose agencies and districts)

- Puget Sound Action Agenda
- Regional Watershed Planning (WRIAs)
- Stillaguamish Watershed Council
- Stillaguamish River Clean Water District and Shellfish Protection
- Stillaguamish River Flood Control
- Drainage Diking District 7

Local Laws, Permits, and Requirements
(as administered by the City)

- City of Stanwood Stormwater Codes
- City of Stanwood Critical Areas Regulations

3.2 FEDERAL LAWS, PERMITS, AND REQUIREMENTS

3.2.1 The Clean Water Act

The 1972 amendments to the Federal Water Pollution Control Act, also known as the Clean Water Act (CWA), provide the regulatory and legal basis for the National Pollution

Discharge Elimination System Permit (Permit). The CWA includes a series of regulatory guidance documents, permits, and technical requirements to protect the water quality in the United States. The Federal Environmental Protection Agency (EPA) provides the basic structure for regulating the discharge of pollutants from point sources to waters of the United States through the NPDES Permit. The CWA allows EPA to authorize the NPDES Permit Program to be delegated to the Washington State government (specifically the Department of Ecology) for administration and enforcement of the Permit and associated TMDL water quality violations. The Permit applies to both industrial and municipal stormwater discharges. The specific purpose of the Permit is to reduce stormwater runoff and the discharge of pollutants into our nation's receiving waters.

Due to its size and relatively remote location, the City of Stanwood is not yet required to be under a Permit. However, the City's Stormwater Management Program (SWMP) does need to address the requirements of the 303d degraded water quality listings of Irvine Slough and Jorgenson Slough (Church Creek). The City also comes under the regulatory arm of the U.S. Army Corps of Engineers in regard to Section 404 permits and the State Department of Fish and Wildlife in regard to Hydraulic Project Approvals (HPAs) related to streams, habitat, water quality, and wetland protection during construction and maintenance projects within the City.

Western Washington National Pollutant Discharge Elimination System Program
(As administered by the State of Washington, Department of Ecology)

Cities of a certain size and development density that own and operate a stormwater collection/conveyance system, referred to as Municipal Separate Storm Sewer System (MS4), are required to meet the requirements of the Permit, as defined for Western Washington by the Department of Ecology. The origin of the Permit is the Federal CWA, as amended in the mid-1990s to include non-point sources of pollution that include stormwater and surface water runoff. Under federal and state law, municipalities that collect stormwater runoff in separate storm sewers and discharge to surface waters are required to have this Permit. This Permit is regulated by the EPA and locally implemented by the Washington State Department of Ecology through the EPA delegation process. Most states in the Northwest, except for Idaho and Alaska, have assumed the delegation of the Permit from EPA at the state level.

The EPA stormwater regulations are administered through a two-phase Permit program: Phase I for large cities and counties, and Phase II for smaller cities. The Department of Ecology has been delegated this authority to develop and administer these Permits throughout Washington State. The EPA regulations went into effect in early 2003 and apply to all cities, counties, and ports with regulated stormwater collection/conveyance systems.

For the State of Washington, the Department of Ecology has established separate permits, one for Eastern Washington and one for Western Washington; each permit has a duration of

five years. Ecology first issued the Western Washington Phase II Permit in 2007 and modified it in 2009. Ecology extended and reissued the 2007-2012 Permit on August 1, 2012, at legislative direction, to be effective through July 31, 2013. After an extensive public process, Ecology then reissued the updated 2013-2018 Permit on August 1, 2012, effective August 1, 2013. Ecology recently issued the new Permit, effective August 1, 2013, to over 80 cities and the urbanized areas within five counties in Western Washington.

Note that due to its smaller size in terms of population, less dense urban development, and its relatively rural location, the City of Stanwood is not currently required to operate its municipal stormwater system under a NPDES Municipal Phase II Permit; however, a Permit could be issued to the City as early as 2018.

303d List and Total Maximum Daily Loads

(As administered by the State of Washington, Department of Ecology)

The CWA requires all states to protect and restore their waters to be "fishable and swimmable." Section 303d of the CWA establishes a process to identify and clean up polluted waters by measuring and listing polluted bodies of water. Every two years, the State of Washington is required to perform a water quality assessment of the quality of surface waters throughout the state, including all streams, rivers, lakes, and marine waters. Ecology compiles its own water quality data using appropriate scientific methods predetermined by EPA.[1]

This Washington State Water Quality Assessment, developed by the Department of Ecology, lists the status of the water quality for each water body in the State using the relative Categories of 1 through 5, with Category 5 being the most degraded. Category 5 represents water bodies listed on the EPA's 303d list. Table 3-1 provides a listing of the 303d-listed water bodies into which the City of Stanwood discharges its stormwater.

The water quality parameters that the Department of Ecology has found to be exceeded near and within the City of Stanwood include fecal coliform bacteria, dissolved oxygen, and pH. These types of water quality problems are common within developed watersheds that have mixed land uses, such as Stanwood. Existing land uses in and around Stanwood include industrial, commercial, and residential, as well as livestock rearing, and crop production. The nature and extent of the water quality problems can be further degraded at the local level by elevated water temperatures and reduced flows that most typically occur during the summer months. Due to the diverse and pervasive nature of pollution sources, and the difficulty in controlling the sources or treating the water to remove these contaminates, these water quality parameters have proven to be difficult for the Department of Ecology to regulate, and especially difficult for most municipalities to control.

[1] http://www.ecy.wa.gov/programs/wq/303d/introduction.html

Table 3-1: 303d-Listed Water Bodies in the City of Stanwood[2]				
Water Body Listing ID #	**Name**	**Parameter**	**Medium**	**Category**
43042	Irvine Slough	Bacteria	Water	5
47617	Irvine Slough	Dissolved Oxygen	Water	2
7202, 7204, 7205, 7206	Jorgenson Slough (Creek Church)	Bacteria	Water	4A
7238, 7239, 7240, 40903, 47598	Jorgenson Slough (Creek Church)	Dissolved Oxygen	Water	2, 5
40901, 50866, 50867, 50869	Jorgenson Slough (Creek Church)	pH	Water	1, 5
53200, 7170, 7171, 7172, 7173, 53165, 53166, 53197	Skagit Bay	Bacteria	Water	5
8230, 14640, 14642, 14639	Old Stillaguamish Channel	Bacteria, DO, Temp., Ammonia	Water	4a, 2, 1

The Federal Clean Water Act shows the Stillaguamish River, Irvine Slough, and South Skagit Bay as having elevated concentrations of these pollutants. As a result, all three of these regional water bodies have been put on the State's most recent 303d water quality list. Being located directly adjacent to Irvine Slough, which directly discharges into the Stillaguamish River, the City's drainage discharges may impact the water quality of the river, as well as Skagit Bay and Puget Sound.

The Stillaguamish River is also 303d-listed for temperature. This is often caused by lack of a combination of riparian vegetation, change in stream morphology, and/or change in hydrology. Elevated temperatures in receiving waters, combined with manmade sources of pollution, threaten aquatic species both within the streams and within other downstream reaches of the natural drainage system. In general, high temperatures can be a major contributor to overall low health for a river system, such as within the lower reaches of the Stillaguamish River.

Irvine Slough, Jorgenson Slough, and South Skagit Bay are 303d-listed because of bacterial pollutants, mainly fecal coliform (FC), high sediment levels, and low dissolved oxygen. Elevated levels of fecal coliforms are harmful to both humans and aquatic life when in high enough concentrations. These pollutants, along with elevated temperature, have contributed to the closing of many acres of commercial and public shellfish harvesting grounds within adjacent shellfish rearing areas.

The natural resources of the Stillaguamish River are unique and important to the local economy and the quality of life in and around the City of Stanwood. Given that such an important resource is currently being threatened, substantial resources have been and continue to be invested in sustaining and enhancing the health of the river, resulting in the initiation of numerous surveys and technical assessments.

[2] https://fortress.wa.gov/ecy/wqamapviewer/default.aspx?res=1613x1008

The Stillaguamish River Clean Water District, discussed in Section 3.4.4, was specifically organized in response to the elevated coliform concentrations in and downstream of the Stillaguamish River. In addition, several studies and reports have been conducted in regard to water quality, habitat health, shellfish and the TMDLs for the Stillaguamish River and the Skagit Bay. Several of the most current and significant studies are presented below:

- Skagit Bay Fecal Coliform Bacteria Loading Assessment, By Washington Department of Ecology https://fortress.wa.gov/ecy/publications/summarypages/1203035.html (June 2012)
- Stillaguamish River Watershed Temperature TMDL Study http://www.ecy.wa.gov/programs/wq/tmdl/StillaguamishTMDL.html (March 2004)
- Stillaguamish Watershed Action Plan http://www.co.snohomish.wa.us/documents/Departments/Public_Works/SurfaceWaterManagement/Watershed/StillyWatershedActionPlan19901.pdf (1990)
- Focus on Next Steps to Improve Water Quality in the Stillaguamish Watershed and Port Susan (April 2007) https://fortress.wa.gov/ecy/publications/SummaryPages/0710035.html
- Stillaguamish River Watershed Fecal Coliform, Dissolved Oxygen, pH, Mercury, and Arsenic Total Maximum Daily Load Study (July 2004) https://fortress.wa.gov/ecy/publications/SummaryPages/0403017.html
- Stillaguamish River Watershed Fecal Coliform, Dissolved Oxygen, pH, Arsenic, and Mercury Total Maximum Daily Load (May 2005) https://fortress.wa.gov/ecy/publications/SummaryPages/0510044.html

For additional reports and studies, see the Washington Department of Ecology website.

Section 404 Permits

(As administered by the U.S. Army Corps of Engineers)

Section 404 of the CWA establishes programs to regulate the discharge of dredged and/or fill material into the waters of the United States, including wetlands. Projects and activities that are included under this regulation include water resource projects, infrastructure development, and mining operations. This section of the CWA is regulated by the U.S. Army Corps of Engineers (Corps).

The Corps authorizes activities by issuing individual and general permits for construction and habitat enhancement projects. Under Section 404, individual permits include Standard Individual Permits and General Permits, including the Nationwide Permits and Regional General Permits. The Corps determines which type of permit is needed based on the type of activity and potential impacts to the environment. A Corps permit can include authorization under Section 10 and/or Section 404. Typical activities that may require Section 404 permits are:

- Depositing fill, dredged, or excavated material in waters of the U.S. and/or adjacent wetlands.
- Grading or mechanized land clearing of wetlands.
- Placing spoils from ditch excavation into wetlands.
- Moving soil during vegetation clearing into wetlands.
- Depositing fill for residential, commercial, or recreational site developments.
- Constructing revetments, groins, breakwaters, beach enhancements, jetties, levees, dams, dikes, or weirs.
- Placing riprap and road fill.

3.2.2 Endangered Species Act

(As administered by the U.S. Department of Fish and Wildlife and the Washington Department of Ecology)

In 1973, the United States Congress passed the Endangered Species Act (ESA) with the purpose of protecting and recovering imperiled species and their supporting habitat ecosystems. ESA is administered by the U.S. Fish and Wildlife Service (FWS) and the Commerce Department's National Marine Fisheries Service (NMFS). The FWS is responsible for terrestrial and freshwater organisms, while the NMFS is responsible for marine wildlife such as salmon. Within the State of Washington, the Department of Fish and Wildlife works closely with federal agencies in administering the ESA at the local level. Most projects requiring ESA-related permitting are jointly permitted by both federal and State agencies, often using a common permit.

Portions of the natural and manmade drainage systems within the City of Stanwood fall under the jurisdiction of the ESA and are subject to regulation by both federal and State agencies. These waters include the City's discharges to the South Douglas Slough area (from Douglas Creek), and Irvine and Jorgenson Sloughs (from Church Creek).

- The Jorgenson Slough has instances of the following listed fish species being observed and reported: Resident Coastal Cutthroat (documented), Fall Chinook (modeled presence), Fall Chum (documented), Coho (documented), Dolly Varden/Bull Trout (presumed presence), Pink–Odd Year (modeled presence), and Winter Steelhead (documented).
- The South Douglas Slough is considered viable habitat to support the following anadromous fish species: Fall Chinook, Fall Chum, Coho, Pink–Odd Year, and Winter Steelhead.

Within Washington State, including the Stanwood area, the following species are also listed as species of concern with either State or federal agencies: Bull Trout, federally threatened

and a candidate for state listing; Chinook salmon, federally listed; Coho, federally threatened; and Steelhead, federally threatened.[3]

3.3 STATE LAWS, PERMITS, AND REQUIREMENTS

3.3.1 Washington State Growth Management Act

The City is currently updating its Comprehensive Plan under the guidance of the Washington State Growth Management Act (GMA). This citywide planning effort includes land use, economic development, transportation, housing, capital facilities, natural features, parks, and utilities. It also includes the regional planning objectives adopted through the Puget Sound Regional Council Vision 2040, the Snohomish County Countywide Planning Policies in 2012, and the City's local environmental and economic objectives and policies. The updated Comprehensive Plan is required to address a period of at least 20 years into the future and will include the results of this SCP, along with the results of the City's concurrent water supply, wastewater, and transportation comprehensive planning efforts. One of the primary objectives of the Comprehensive Plan is to anticipate and plan for the infrastructure needs of future growth before the growth occurs. This process allows for effective planning, design, and funding of the City's future utilities and infrastructure.

3.3.2 State Department of Fish and Wildlife

(Hydraulic Project Approval – HPA)

The Washington Department of Fish and Wildlife (WDFW) administers and enforces the Washington State Hydraulic Code and its associated Hydraulic Project Approval (HPA) Permit. The purpose of this the program, and its associated HPA Permit, is to protect the State's fisheries resources, including spawning and rearing habitats for returning fish. A HPA Permit must be obtained from WDFW before work is conducted that uses, obstructs, diverts, or changes the natural flow or bed of any of the State's bodies of water. The permit usually applies to work being conducted within the normal high water mark of streams and associated tributaries.

3.4 REGIONAL LAWS, PERMITS, AND REQUIREMENTS

3.4.1 Puget Sound Action Agenda

(As administered by the State of Washington)

In 2007, the Puget Sound Partnership (Partnership) was requested by the State Legislature to coordinate a regional effort to clean up the water quality of Puget Sound.

[3] Washington Department of Fish and Wildlife, http://wdfw.wa.gov/conservation/endangered/list/Fish/ <accessed May 15, 2014>

The Partnership wrote the 2012/2013 Puget Sound Action Agenda (Action Agenda) that identifies one major priority, Priority C, that is relevant to Stanwood. Priority C applies to *Reducing and Controlling the Sources of Pollution in Puget Sound,* and includes the following activities which are relevant to the City's SWMP:

- C-1: Prevent, reduce, and control the sources of toxic contaminants entering Puget Sound.
- C-2: Use a comprehensive approach to manage urban stormwater runoff at the site and landscape scales.
- C-3: Prevent, reduce, and control agricultural runoff.
- C-4: Prevent, reduce, and control surface runoff from forest lands.
- C-5: Prevent, reduce, and/or eliminate pollution from decentralized wastewater treatment systems.
- C-6: Prevent, reduce, and/or eliminate pollution from centralized wastewater systems.
- C-7: Promote abundant, healthy shellfish for ecosystem health, for commercial subsistence, and recreational harvest consistent with ecosystem protection.
- C-8: Effectively prevent, plan for, and respond to oil spills.
- C-9: Address and clean up cumulative water pollution impacts in Puget Sound.

The Partnership typically identifies and implements the reduction of pollutants into Puget Sound by working with and through local implementation organizations, such as the Stillaguamish Watershed Council and associated regional planning efforts, such as WRIA 5.

3.4.2 Water Resource Inventory Area 5 – Stillaguamish Watershed

(As administered by the State of Washington)

The Stillaguamish Watershed has been established by Ecology as Water Resource Inventory Area 5 (WRIA 5). As shown on earlier maps, the Stillaguamish watershed is situated in the central part of the Puget Sound basin. It is comprised of the northwestern part of Snohomish County, including the City of Stanwood, and the south central part of Skagit County. WRIA 5 has a total of 685 square miles and encompasses 27 sub-watersheds and numerous creeks. On its west side, it is bounded by Puget Sound, and on its east side it is defined in its upper reaches by the Cascade Mountain range. The majority of water in the Stillaguamish Watershed is already legally spoken for or "appropriated," in terms of available water rights. Increasing demands for water from ongoing population growth, declining groundwater levels in some areas, and the impacts of climate change, have put Washington's water supplies at risk, particularly during the summer months. See Figure 3-1 for the location and extent of WRIA 5.

The Revised Code of Washington (RCW) Chapter 90.82 sets the requirements for watershed planning within the State of Washington and requires the setting of goals for appropriating natural existing water supplies within the state's Water Resource Inventory Areas (WRIAs).

This state code provides a framework and resources for local governments to develop solutions to watershed issues on an individual watershed basis. The resulting watershed plans, developed through a watershed wide prioritization and planning process, are required to address water quantity, with the optional elements of water quality and habitat. Some plans also include flood control elements. WRIA 5 has an in-stream flow and management rule (WAC 173-505) to protect senior water rights, maintain a healthy ecosystem, and meet future water resource management objectives. Such rules are required by state law (RCW 90.54). WAC 173-505 also establishes maximum allocation limits on certain rivers, at certain times, to preserve the environmental benefits of natural annual high flows. A copy of the August 2012 Focus Sheet, presented in Appendix A.4, describes information about the availability of water within the Stillaguamish Watershed.

3.4.3 Stillaguamish Watershed Council

The Stillaguamish Watershed drains approximately 685 square miles of Snohomish and Skagit Counties. Early staples of the economy of the Stillaguamish Watershed were forestry and farming, along with fishing and shellfish harvesting, and all of these economic activities still remain vital pieces of the local economy and recreational pursuits.

The Stillaguamish Watershed Council collaboration began in early 1990 between local stakeholders, including the City of Stanwood, Snohomish County, the Tulalip and Stillaguamish Tribes, farmers, forest landowners, citizens, and local agency representatives. To be a viable member of the Council, each group must be committed to the goal of improving local water quality. The City of Stanwood continues to participate on a regular basis in the efforts of the Stillaguamish Watershed Council and has been an active supporter since its inception.

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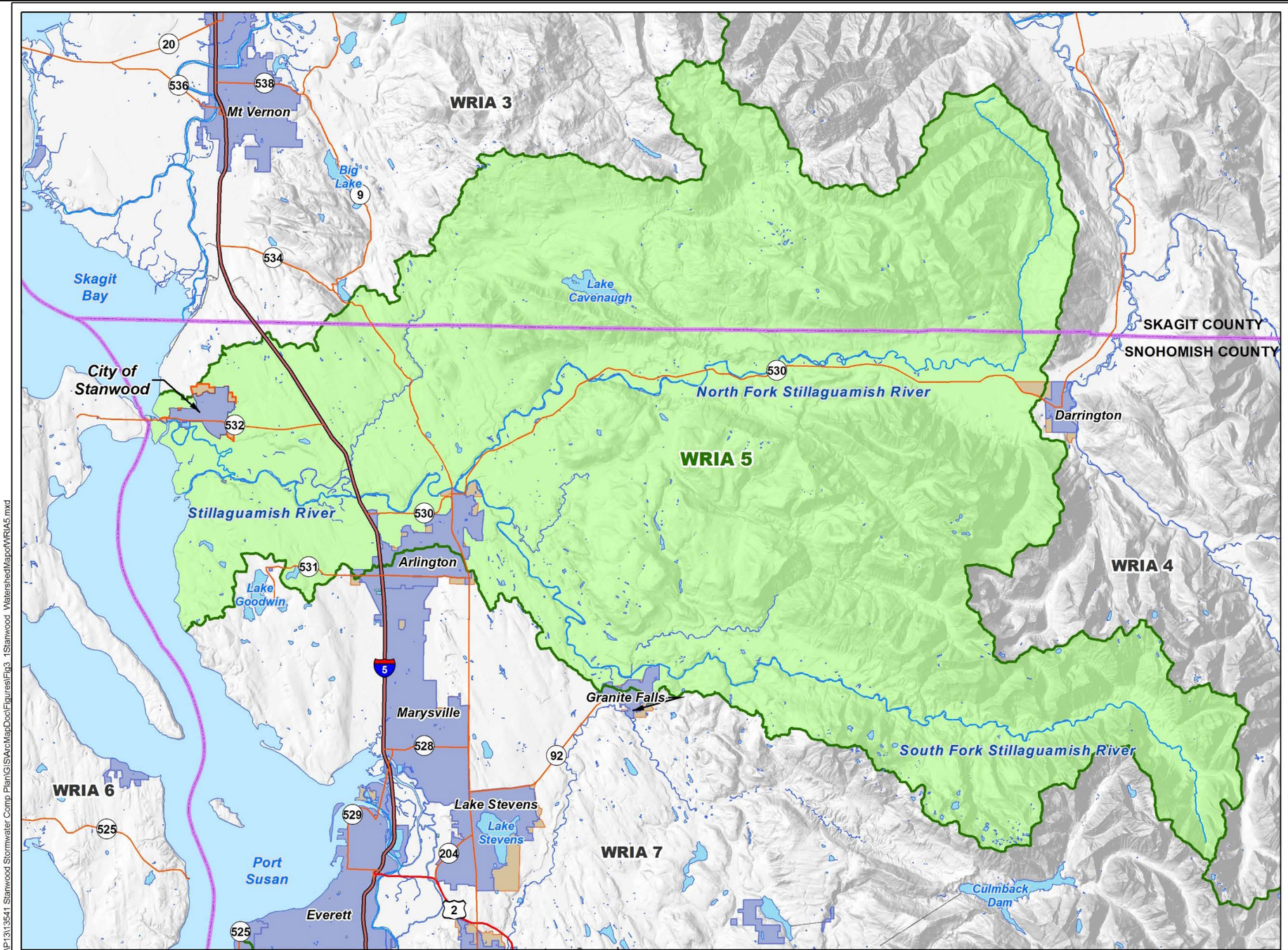

Figure 3-1
Watershed Map for WRIA #5

Stormwater Comprehensive Plan

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3.4.4 Stillaguamish River Clean Water District

The Stillaguamish River Clean Water District (CWD) was formed in response to the closure of over 6,000 acres of commercial and public shellfish fishing grounds in 1987 within Skagit Bay. This critical shellfish rearing area is fed by discharge flows from both the Stillaguamish and Skagit Rivers. The reason for the closure was elevated coliform levels within local and regional shellfish rearing areas. These elevated concentrations are believed to be due to high levels of bacteria coming from upstream practices that include agriculture, onsite sewage disposal, urban runoff, and forestry. Every year the CWD collects a fee from each property owner which is used for education of citizens in the Stillaguamish Watershed and to fund restoration projects to improve the water quality within the Stillaguamish River and Skagit Bay. Figure 3-2 shows the current CWD boundaries. Currently, Stanwood and the Stillaguamish Flood Control District are not included in the CDW; however, the CDW is currently looking to amend their bylaws to include Stanwood. If included in the District, the City of Stanwood would be a very proactive and supportive participant.

An applicable study to Stillaguamish Shellfish health is below:

- Stillaguamish Shellfish Protection Program. By Snohomish County Public Works http://snohomishcountywa.gov/DocumentCenter/Home/View/7453 (March 2011)

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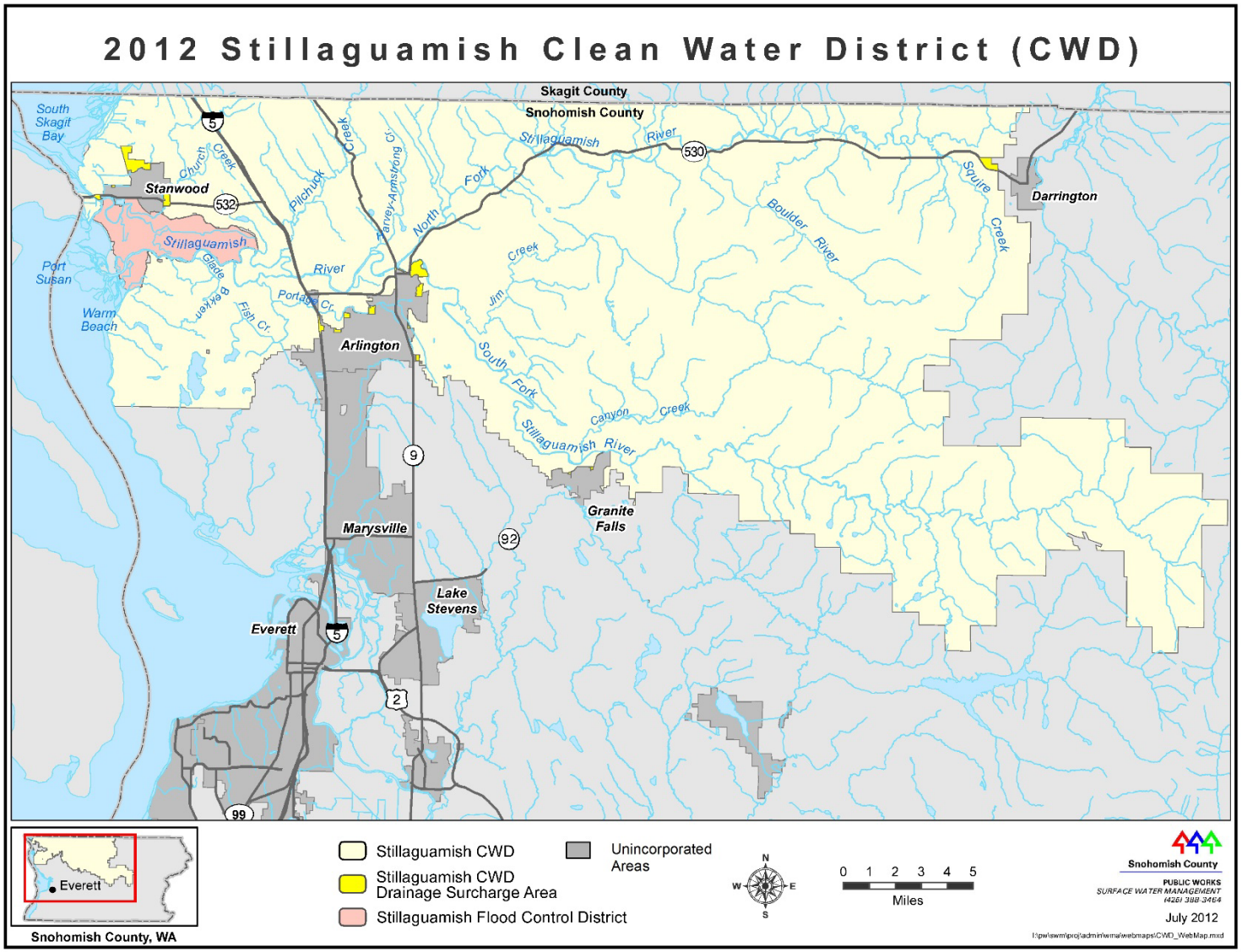

Source: Snohomish County

Figure 3-2
Stillaguamish CWD Boundaries

Stormwater Comprehensive Plan

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3.4.5 Stillaguamish Flood Control District and Diking and Drainage District #7

Being located in a floodplain, the drainage and flood control policies and facilities of the City of Stanwood are influenced by the policies and programs of Snohomish County and the three regional flood control/reduction districts. Figure 3-3 shows the jurisdictional boundaries of the City, the County and the three flood control/reduction districts that include the Stillaguamish River Flood Control District and Diking Districts #7 and #12.

3.4.5.1 *Stillaguamish Diking and Drainage District #7*

The Stillaguamish Diking and Drainage District #7 (DD7) was founded in the 1920s by a group of landowners to tax themselves on an annual basis to raise funds to preserve and maintain the dike along Skagit Bay, just north of the City of Stanwood. Later, other drainage responsibilities within the District were added to the tax assessment including preservation o drainage facilities like ditches, sloughs, and creeks, as well as to maintain the dike along the bay. Currently, DD7 taxes about 12,000 acres of land, of which 40-50 acres are within the city limits of Stanwood. The main drainage outlets are Douglas Creek, Irvine Slough, and the Unnamed Slough that catches the drainage from the northern part of the City and discharges it into the Stillaguamish River just west of the City. The annual assessment revenues collected from DD7 go towards mowing and cleaning ditches, rebuilding the dike, and maintaining the tide gates on both Douglas Creek and Irvine Slough.

3.4.5.2 *Stillaguamish Flood Control District*

The Stillaguamish Flood Control District (SFCD) lies just to the south of Stanwood and works with the City on adjoining flood control and stormwater runoff reduction-related issues. Founded in 1993, the SFCD was formed to protect property and life from flooding within the lower reaches of the Stillaguamish River. The assessments collected within this jurisdiction go towards maintaining levees and drainage facilities, as well as improving some water quality issues, and periodic water quality monitoring. The SFDC has worked with the City in the past to install a flood relief structure, the Larson Dam, as shown in many of the previous facility maps, and as presented in Figure 2-5 Stormwater Facility Inventory in Chapter 2 on page 2-17.

DD7 and SFCD are working with the Stillaguamish Tribe and the City in developing collaborative enhancements to relieve the current capacity issues that occur within Irvine Slough during high flow/rainfall events. This regional flood reduction effort is scheduled to start sometime later this year.

3.5 LOCAL LAWS, PERMITS, AND REQUIREMENTS

3.5.1 City of Stanwood Municipal Code[4]

The Stanwood Municipal Code (SMC) Chapter 17.140: Stormwater Management Performance Standards codifies the City's stormwater requirements for new development and redevelopment. This section of the SMC provides the minimum stormwater standards required for all properties being developed or redeveloped within the City under the 2005 Department of Ecology's Stormwater Management Manual for Western Washington (SWMMWW).

In addition, stormwater is addressed in Chapter 3 of the City Street and Utility Standards as well as in the following sections of the City's various municipal codes:

- SMC Title 17: Zoning
- SMC 17.114: Critical Areas – General Provisions
- SMC 17.115: Critical Areas – Geologically Hazardous Areas – Specific Standards
- SMC 17.20: Construction of Language – Definitions
- SMC 17.78: Mineral Resource Lands Special District

3.6 REGIONAL INTERLOCAL COOPERATION

The City of Stanwood has entered into three different agreements at this time to join with other neighboring and upstream communities in addressing stormwater runoff and managing flows from major flood/rainfall events. These agreements are summarized below and include an agreement with the Stillaguamish Tribe for watershed and habitat enhancements, an agreement with Diking District #7 (DD7) for flood management and reduction, and an agreement with Snohomish County for stormwater facility maintenance. Additional details for each agreement are presented below and copies of each agreement are included in Appendix A.

3.6.1 Memoranda of Understanding (MOU)

3.6.1.1 *Diking District #7 (Appendix A.5)*

The City has entered into an agreement with the DD7 to help manage the common problem of flooding north of the City that enters into agricultural fields from Douglas Creek and often flows southward into the downtown area of the City. Once the excess water enters the City, it ultimately drains via gravity under State Highway 532, enters Irvine Slough, and is pumped into the lower reaches of the Stillaguamish River, just prior to the river flowing into Puget Sound.

[4] http://www.codepublishing.com/wa/stanwood/

3.6.1.2 *Snohomish County for Retention/Detention (R/D) Pond Maintenance (Appendix A.6)*

The Memorandum of Understanding (MOU) with Snohomish County provides the City an extension of City resources in the form of staff and equipment for maintaining the 24 or more regional detention facilities that currently lie within the City. Most of these facilities serve some of the newer developments within the City that lie on the hillside located east of downtown, and east of the railroad tracks, across Pioneer Highway.

3.6.2 Interlocal Agreements

3.6.2.1 *Stillaguamish Tribe for Watershed Improvements (Appendix A.7)*

In this interlocal agreement with the Stillaguamish Tribe, the City and Tribe mutually agree to support, participate in, and fund projects that reduce damage from flooding. One of the objectives of the interlocal agreement is to promote projects that are aimed at preserving and enhancing natural habitat areas and functions within and adjacent to the lower reaches of the Stillaguamish River.

3.6.2.2 *Irvine Slough Stormwater Separation Study*

Currently, a large regional study is being planned with some funding that has been provided by the federal Environmental Protection Agency (EPA). This particular study, the Irvine Slough Stormwater Separation Study, will focus on ways to dewater the downtown area of the City during major flood/rainfall events. The current system of gravity flow to Irvine Sough is difficult to maintain due to excessive water coming from the south, through Larson Dam, and filling in the slough; this leaves little time to draw down the slough to allow gravity flow under SR 532 to reach Irvine Slough. It is also possible to get reverse flows into the City depending on tidal functions and system operations. Additional capacity is needed north of SR 532, and this study will focus on creating and evaluating alternatives to provide this type of dewatering relief to the inner City. The study is scheduled to start later in 2014.

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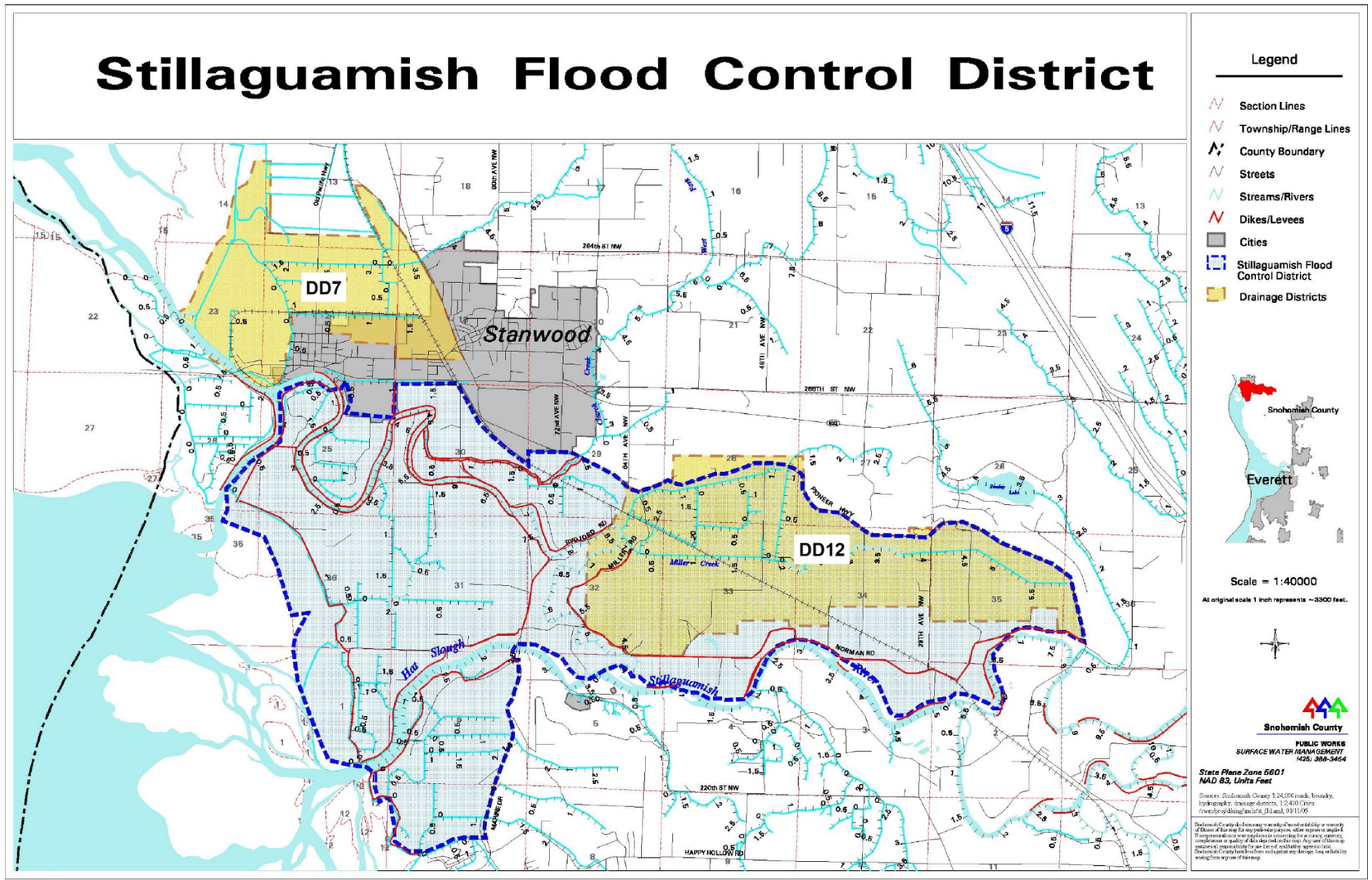

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Source: Snohomish County

Figure 3-3
Flood District Boundaries

Stormwater Comprehensive Plan

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