



**Snohomish County**

Stanwood Urban Growth Area  
Drainage Needs Report

Executive Summary

# Executive Summary

The Stanwood UGA Drainage Needs Report (DNR) is one of a series of 11 drainage plans completed for most of Snohomish County's Urban Growth Areas (UGAs). The purpose of these plans is to identify flooding and surface water problems and to recommend solutions.

In order to gain a better understanding of the drainage systems, streams, and wetlands within the unincorporated UGAs of Snohomish County, the Snohomish County Council authorized, in 2001, the accelerated development of drainage plans for these areas. The purpose of the DNR project is to plan for existing and future drainage infrastructure needs in a way that identifies how to reduce road and property flooding, protect and enhance aquatic habitat, and reduce stormwater pollution. This Stanwood UGA DNR is one of a series of 11 individual reports that were prepared, in addition to a summary report for the entire DNR project.

The study area for this DNR includes the 800-acre portion of the unincorporated UGA around the City of Stanwood in northwestern Snohomish County (see Figure 1-1). This area has three major drainage basins:

- Church Creek
- Douglas Creek
- Unnamed Creek

**Scope of Analyses:** For the Stanwood UGA study area, a qualitative evaluation was performed for three existing drainage systems that have experienced a history of drainage problems. In addition, drainage complaints recorded by the County for this study area were investigated through field reconnaissance. No water quality or habitat analyses were conducted for this study.

Current land uses in the study area consist of residential, industrial, agricultural, and public facilities. Residential land use is concentrated in the southern portion of the study area, with other dispersed residential areas throughout. While some areas have new residential development, much of the residential development is 30 years old or more. The Schenk Packing Company, one of Stanwood's major industries, is located near the center of the study area at 288th Street NW and 82nd Avenue NW. Agricultural uses are scattered throughout the area. The Cedar Home Elementary School is located in the southeastern portion of the study area.

As indicated in Table ES-1, a total of six projects are recommended; four of these are related to flooding and one was related to erosion and habitat.

| <b>Table ES-1</b>                                |                   |
|--|-------------------|
| <b>Recommended CIP Projects for Stanwood UGA</b> |                   |
| 4  | Flooding Projects |
| \$115,000  |                   |
| 1  | Habitat Projects  |
| \$51,000   |                   |
| 1  | Erosion Projects  |
| \$47,000   |                   |
| <b>Total Recommended</b>                         |                   |
| <b>6</b>   | <b>Projects</b>   |
| <b>\$213,000</b>                                 |                   |

Work for this report was generally qualitative, and was based on an assessment of past drainage complaints recorded by the County, a review of the existing drainage infrastructure, and the assessment of three drainage

systems of concern that were identified by the County. In order to assess existing

surface water conditions and problems within the study area, data was collected from various sources, including the County’s Geographic Information System (GIS), assessor maps, aerial photographs, and the Snohomish County Drainage Rehabilitation and Investigation (DRI) program database. Field reconnaissance was performed for all of the drainage systems of concern and at the locations of drainage complaints and potential CIP projects, including those identified by County staff.

Existing drainage systems in the study area generally consist of ditches and culverts, pipes and structures, stormwater control facilities, and three major creek systems: Church Creek, Douglas Creek, and an unnamed creek. These drainage systems are shown in Figure 2-3 of this report.

A total of eight surface water problems were identified in the Stanwood UGA study area. The identified problems varied greatly in nature, and ranged from clogged culverts to pipes with insufficient conveyance capacities. These problems have led to the flooding of roads, private property, and one home.

The six projects that are recommended to address these problems are listed in Table ES-2. The majority of these are drainage infrastructure improvements. In order to implement the recommended projects, a number of issues will need to be resolved, such as available funding, project responsibility, prioritization of projects, detailed design, construction sequence, and permits. In addition to the recommended projects, some drainage systems were observed to require maintenance. These systems are identified on Figure 2-3 of this report.

| <b>Table ES-2.<br/>Recommended CIP Projects</b> |  |   |   |                                     |
|---|--|---|---|-------------------------------------|
| <b>Project</b>                                  | <b>Location</b>  | <b>Problem Addressed</b>                        | <b>Proposed Improvements</b>  | <b>Planning Level Cost Estimate</b> |
| ST-ST-E-Ex-1                                    | Pioneer Highway Outfall Stabilization  | Erosion   | Stabilize channel and install energy dissipater                                   | \$47,000                            |
| ST-ST-F-Ex -2                                   | 288th Street NW from 88th Avenue NW to Pioneer Highway Drainage Improvements | Flooding of road, home, and private property    | Construct asphalt berm, pipe system, and regrade ditch                            | \$49,000                            |
| ST-ST-EH-Ex -3                                  | 80th Avenue NW Culvert Outlet Improvement                                    | Fish passage barrier and erosion                | Construct fish weirs, remove debris, and stabilize outlet                         | \$51,000                            |
| ST-ST-F-Ex -4                                   | 284th Street NW Culvert and Ditch Improvements                               | Flooding of private property and road           | Replace damaged culvert and regrade ditch   | \$23,000                            |
| ST-ST-F-Ex -5                                   | 280th Street NW and 70th Avenue NW Drainage Improvements                     | Flooding of 70th Avenue NW and 280th Street NW  | Construct asphalt berm, culvert, and regrade ditch                                | \$21,000                            |
| ST-ST-F-Ex -6—                                  | 68th Avenue NW Drainage Improvements   | Flooding of 68th Avenue NW and private property | Unplug existing culvert, regrade ditch, and enlarge culvert across 68th Avenue NW | \$22,000                            |
| <b>Total</b>                                    |  |   |   | <b>\$213,000</b>                    |