

# Thurston County Department Water and Waste Management

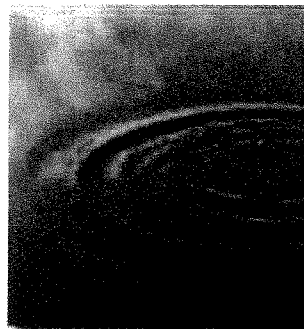
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## Salmon Creek Drainage Basin

On June 28, 2004, the Thurston County Board of Commissioners adopted the Salmon Creek Comprehensive Drainage Basin Plan. (Resolution No. 13177). The City of Tumwater adopted the plan May 4, 2004 (Resolution No. R2004-012). Our thanks to the members of the Salmon Creek Drainage Basin Stakeholders Committee for all their hard work in drafting the plan.




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### Background

Located in south-central Thurston County, the Salmon Creek Drainage Basin is a flat area that extends south of the Olympia Municipal airport. Certain areas of the basin are prone to ground water flooding because of glacial movement during the Ice Age.

Groundwater flooding is caused by a unique mix of local geology and weather conditions. There are two geologic layers that are primarily responsible for ground water flooding in south Thurston County. The first layer, the upper aquifer, is eight- to 50-feet thick consisting of well-sorted, loose sand and gravel, which rapidly accepts and stores water. Below this upper aquifer is a second layer of dense, compacted sand and gravel, mixed with silts and clays (commonly referred to as "hardpan"). This hardpan layer is not very porous and generally slows the downward flow of water from the upper aquifer.

Typically, when the region experiences two years of above-average rainfall, accompanied by wet springs and cool mild summers, the upper aquifer fills and overflows into low lying areas. Rainfall and flooding data indicate this happens about every 20 years. The most recent groundwater flooding events occurred in the 1996-97 and 1998-99 rainy seasons. Human alterations to the natural landscape have also contributed to the problem.

In 1999, the Thurston County Board of Commissioners appointed a Salmon Creek Drainage Basin Stakeholders Committee to recommend policies and projects aimed at curbing flooding in the area. Thurston County also hired a private engineering firm to study water patterns in the basin and model – or simulate – what would happen under various scenarios. Based on the consultants' findings, the committee made recommendations to the Thurston County Board of Commissioners in the form of the "Salmon Creek Comprehensive Drainage Basin Plan." A copy of the final plan, as approved by the City of Tumwater and Thurston County, will be posted on this Web site in mid-August.

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### Salmon Creek Drainage Basin Stakeholders Committee

- [Description of the Salmon Creek Drainage Basin Stakeholders Committee](#)
- [Meeting Minutes](#)

## About the Salmon Creek Drainage Basin

- [Thurston County Utility Rate Boundary for the Salmon Creek Drainage Basin](#)
- [Depth to Water map as published by URS and Pacific Groundwater Group \(PDF\)](#) (This is a large PDF, so please be patient. Use the magnifying glass to zoom in.)
- [1883 General Land Office map](#)
- [1884 General Land Office map](#)
- [Salmon Creek Basin Conceptual Hydrological Model \(June 2001\) Final Report](#), prepared by URS of Seattle, WA and Pacific Groundwater Group of Seattle, WA (Phase 1 Study)
- [Salmon Creek Comprehensive Drainage Basin Plan \(June 2004\)](#) As adopted by Thurston County and the City of Tumwater.
- [Salmon Creek Drainage Basin Groundwater Monitoring Data](#)

## Policies and Regulations Pertaining to Development

Click here to view "[Developing Land Within the Salmon Creek Drainage Basin](#)" (PDF). This document summarizes requirements under Thurston County's "Critical Areas Ordinance" and the "Revised Interim Stormwater Standards for New Development in the Salmon Creek Drainage Basin" (an amendment to the [1994 Drainage Design and Erosion Control Manual](#)).

Please note: Other county ordinances, regulations, and standards may apply to project-specific development applications. Please contact the Thurston County Department of Development Services for additional information at 786-5490 or visit the Permit Assistance Center, 2000 Lakeridge Dr. S.W., Building 1, second floor.

## Emergency Management Information

- [2002 Salmon Creek Groundwater Advisory PDF](#) (Dec. 2001, contains information on sandbagging, drinking water, septic systems etc.)
- [Telephone Numbers for Flood-Related Assistance PDF](#) (Dec. 2001)
- [Thurston County Sandbag Distribution Survey \(Jan. 2002\) PDF](#)
- [Thurston County Emergency Management web site](#)
- [Main Thurston County web site](#)
- [Sandbagging "how to" hyperlinks: U.S. Army Corps of Engineers; Santa Cruz Public Works Department](#)

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