

APPENDIX A

Actions Undertaken by Jurisdictions

Note:

Some pages in this document have been purposefully skipped or blank pages inserted so that this document will copy correctly when duplexed.

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Activities by WRIA 9 Jurisdictions

This appendix summarizes current and planned activities by the 16 local governments of WRIA 9. Governments are listed by subwatershed. King County, which has jurisdiction over unincorporated areas in all subwatersheds, is at the end of this appendix.



Middle Green River Subwatershed

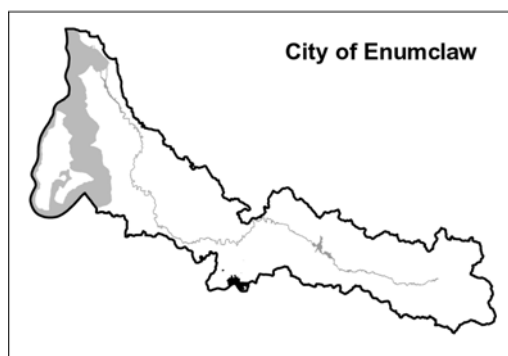
City of Enumclaw

Efforts to Recover Salmon Habitat

Population: 11,180 (2001 est.) (split between WRIA 9 and WRIA 10)

Incorporated: 1913

3.5 square miles in the Middle Green River subwatershed



Land Use and Riparian Conditions

Buffers and Habitat: Buffers are required on salmon-bearing streams and near-shore areas. The width of these buffers is keyed to the Washington State Department of Natural Resources classification for the stream. These buffers will be reviewed as part of the planned review of the Critical Areas Ordinance in 2002. The city will review other policies and practices as funding and staff availability allow.

Classification	Buffer Width
Class 1	100 feet
Class 2	75 feet
Class 3	50 feet
Class 4 and 5	25 feet

Stormwater and Water Quality

Construction Regulation: Enumclaw inspects construction sites for the control of erosion and sedimentation more than once. Frequency depends on the size of the project and the weather.

Water Quality Controls: Water quality complaints are investigated and referrals given. Information on control of pollutants is included in the standard license package that goes to new businesses licensed in Enumclaw.

Stormwater Regulations: Enumclaw adopted its own manual in 1989; the city intends to adopt the King County manual or the Washington State Department of Ecology stormwater manual by the end of 2002.

Maintenance: The city maintains city-owned stormwater facilities. The city inspects privately owned stormwater facilities on an as-needed basis (e.g., when a complaint is received). Private owners are responsible for maintaining their facilities.

Stewardship

Enumclaw has worked with Planet CPR and local volunteers on the GrateMate program to improve stormwater quality.

Features Particular to City

Enumclaw is seeking to acquire and improve 54 acres of habitat along Newaukum Creek outside the city. Two environmental groups may partner with the city to conduct restoration. The primary purpose of the project is to protect existing habitat. If the habitat is improved, the project also may serve as a mitigation bank. Funding would come from a Conservation Futures allocation.

Enumclaw also is partnering with King County, Mid-Sound Fisheries Enhancement Group, Trout Unlimited, Green River Steelhead Club, and Enumclaw High School on the Newaukum Creek Wetland Mitigation Plan. This plan allows the development of low-value wetlands in exchange for restoration and improved protection of riparian lands along Newaukum Creek.

Notable Projects

- Working to acquire 54 acres of habitat along Newaukum Creek (described above).
- Acquisition of a 6-acre conservation easement adjacent to Newaukum Creek under the Newaukum Creek Wetland Mitigation Plan (described above).

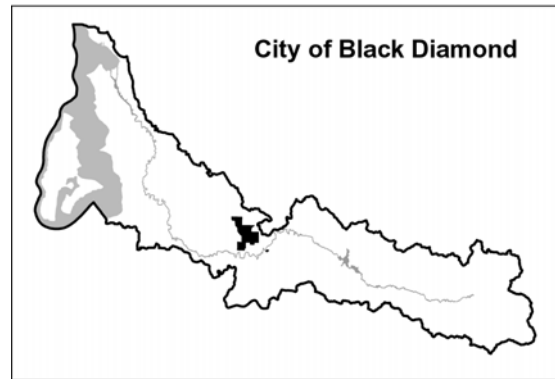
City of Black Diamond

Efforts to Recover Salmon Habitat

Population: 4,015 (2001 est.)

Incorporated: 1959

4.8 square miles in the Middle Green River subwatershed



Land Use and Riparian Conditions

Programs and Expertise: Black Diamond is currently reviewing public works and development policies programs and practices to update them to reflect best management practices, which is expected to improve protection for salmon habitat. Black Diamond has consulting engineers with special expertise available to assist city staff in reviewing proposed developments and identifying resource protection issues.

Buffers and Habitat: Variable buffers are required next to salmon-bearing streams as denoted in the following table:

Classification	Buffer Width
Type 1	75 feet
Type 2	75 feet
Type 3	50 feet
Type 4	25 feet
Type 5	25 feet

Although Black Diamond does not currently have a program to acquire and recover salmon habitat, the city expects to participate in the transfer of development rights program in the future.

Stormwater and Water Quality

Construction Regulation: Black Diamond inspects construction sites for the control of erosion and sedimentation on a weekly basis. Inspectors have the authority to halt work. In addition, the city has the ability to require on-site private inspectors as a permitting condition.

Water Quality Controls: Black Diamond participates in the Lake Sawyer Management Plan, a regional water quality project that addresses water quality. Black Diamond collects data on water quality including temperature, dissolved oxygen, phosphorous, nitrogen, turbidity,

TSS, conductivity, and flow in the Rock Creek drainage that flows into Lake Sawyer. The city is considering expansion of data collection to include the lake itself and Ravensdale Creek. The city has a spill response program through the fire department. Water quality complaints are investigated and referrals given.

Stormwater Regulations: Black Diamond has adopted and uses the 1992 Washington State Department of Ecology stormwater manual. The city is determining whether stormwater management ordinance language results in the automatic adoption of the 2001 Washington State Department of Ecology manual revision. The city also is interested in creating a stormwater utility.

Maintenance: The city is responsible for maintaining city-owned stormwater facilities and those in residential areas; commercial property owners maintain their own stormwater facilities.

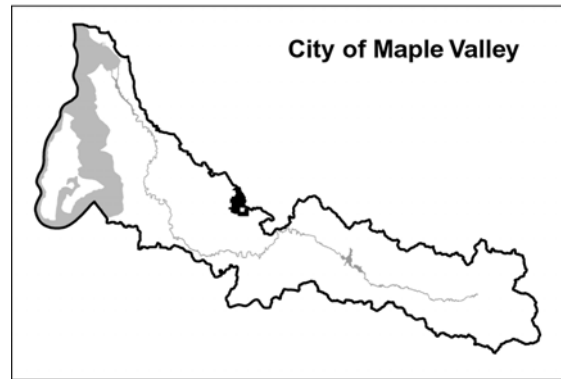
City of Maple Valley

Efforts to Recover Salmon Habitat

Population: 14,590 (2001 est.) (split between WRIA 9 and WRIA 8)

Incorporated: 1997

5.8 square miles in the Middle Green River subwatershed



Land Use and Riparian Conditions

Programs and Expertise: The city has staff with special expertise to review proposed developments and identify resource protection issues. The city is currently revising its Shoreline Master Program.

Buffers and Habitat: Buffers are required on salmon-bearing streams as denoted in the following table.

Classification	Buffer Width
Class 1 (all)	100 feet
Class 2 w/ fish	100 feet
Class 2 w/o fish	50 feet
Class 3	25 feet

Stormwater and Water Quality

Construction Regulation: The city inspects construction sites at least weekly for the control of erosion and sedimentation. Inspectors have the authority to halt work and issue fines.

Water Quality Controls: The use of hazardous substances, pesticides, and fertilizers is prohibited in stream corridors and their buffers. Livestock are prohibited in riparian buffers. The city has a spill response program through the fire department and under contract with the King County Department of Roads. The city will begin providing source control information to businesses in 2002.

Stormwater Regulations: The city has adopted and uses the 1998 King County stormwater manual. The city applies flow control level 1.

Maintenance: The city is responsible for maintaining city-owned stormwater facilities; private owners are responsible for maintaining their own. The city has committed to

adopting the Roads Best Management Practices developed under the Tri-County Endangered Species Act Response.

Stewardship

The city offers storm drain stenciling kits to citizens.

Notable Projects

- The city intends to replace six undersized culverts on the outlet from Lake Lucerne that is a tributary to Jenkins Creek. This will allow for fish passage by coho salmon and cutthroat trout. Replacement is scheduled to occur from 2004 to 2005.

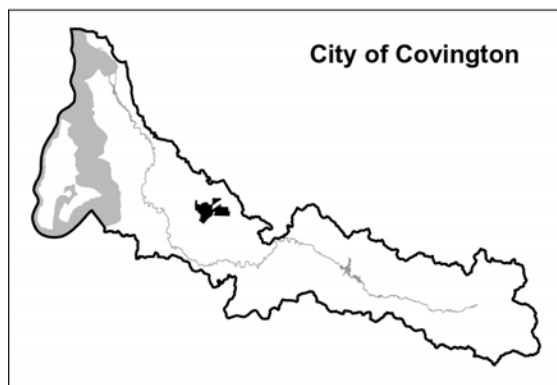
City of Covington

Efforts to Recover Salmon Habitat

Population: 13,840 (2001 est.)

Incorporated: 1997

*6.9 square miles in the
Middle Green River subwatershed*



Land Use and Riparian Conditions

Programs and Expertise: Covington will soon do an in-depth analysis of its Sensitive Areas Ordinance. Covington has staff with special expertise to work with developers as they respond to salmon recovery issues.

Buffers and Habitat: Buffers are required on salmon-bearing streams. In addition to these buffers, a 15-foot building setback is required for all stream classes.

Classification	Buffer Width
Class 1	100 feet
Class 2 salmon-bearing	100 feet
Class 2	50 feet
Class 3	25 feet

Stormwater and Water Quality

Construction Regulation: Covington inspects construction sites once a day for the control of erosion and sedimentation; inspectors have the authority to halt work and issue fines. Educational materials are offered contractors on erosion and sedimentation control.

Water Quality Controls: The city has a spill response program. Covington is building the first regional detention facility in the area, a project with water quality implications. Water quality complaints are investigated and referrals given through a cooperative agreement with King County.

Stormwater Regulations: Covington has adopted and uses the 1998 King County stormwater manual and applies flow control level 1 to facilities handling runoff.

Maintenance: Covington contracts with King County to maintain city-owned and residential stormwater facilities annually. Commercial facilities are inspected annually.



Lower Green River Subwatershed

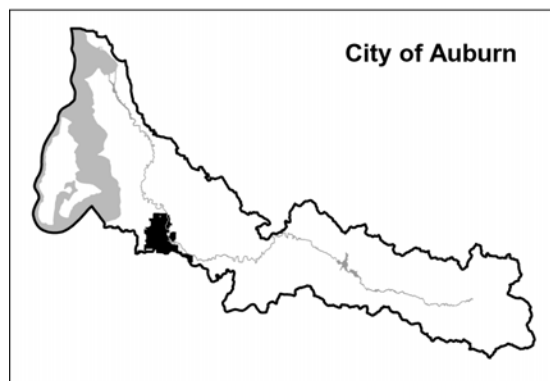
City of Auburn

Efforts to Recover Salmon Habitat

Population: 43,420 (2001 est.) (split between WRIA 9 and WRIA 10)

Incorporated: 1891

20 square miles in the Lower Green River subwatershed



Land Use and Riparian Conditions

Programs and Expertise: Auburn updated its Comprehensive Plan in 1999 and 2000 to address the needs of Endangered Species Act-listed species. Auburn expects to re-evaluate its comprehensive drainage plan in 2002 to determine how well it protects salmon. Auburn is a partner with Kent, Renton, Tukwila, and King County in the Green River Flood Control District. While the primary purpose of the District is flood protection, most projects and maintenance include efforts to improve riparian habitat on the Green River. The city has participated with Kent and King County in developing the Mill Creek Flood Management Plan and Mill Creek Special Area Management Plan, which address protection of aquatic resources including salmon. While the latter plan has not been formally adopted, staff base permitting decisions on its recommendations. Auburn has two staff members with special expertise to review proposed developments and identify resource protection issues. A new staff position began work full-time on Endangered Species Act/Sensitive Areas issues in late 2001. The city offers incentives to private landowners to leave open space within developments. The city has a water conservation goal of 10 percent reduction from 1999 to 2006 even as the population is expected to grow.

Buffers and Habitat: With expected enactment of updates to the city's Sensitive Areas Ordinance in 2002, Auburn is considering adoption of the following buffers on salmon-bearing streams as denoted in the table below when properties experience land use changes or develop:

Classification	Buffer Width
Class 1	150 feet
Class 2	150 feet
Class 3	50 feet
Class 4	25 feet

Stormwater and Water Quality

Construction Regulation: Auburn requires an erosion sediment control plan for all development and inspects construction sites at least weekly. Inspectors have the authority to require corrective actions and halt work if necessary to obtain compliance with city standards. The city includes erosion control notes on development plans. On-site private inspectors are required for some developments as a State Environmental Policy Act condition.

Water Quality Controls: Auburn has a spill response program through the fire department; the fire department coordinates with the public works department on spill containment and cleanup and uses standard operating procedures adopted in 2001. Auburn is involved in several regional water quality projects, including the Mill Creek Special Area Management Plan, the South King County regional water supply management program, and the King County Wastewater Treatment Infiltration and Inflow program. Some water quality parameters are collected in certain basins in the city. Water quality complaints are investigated using a standard procedure for all citizen inquiries. Information on best management practices for the control of pollutants is available; much work is done with commercial car washes and other businesses that could create water quality problems in stormwater. The development permitting process and the business license process are used to help city staff identify potential problems and work with developers to avoid them.

Stormwater Regulations: Auburn uses its own stormwater manual, adopted in 1998. In 2002 the city will review the most recent manual from the Department of Ecology to determine whether and how to use it. The city has reduced the width of new local residential city streets from 32 to 28 feet to reduce the amount of impervious surfaces and associated stormwater runoff.

Maintenance: Auburn is responsible for maintaining city-owned stormwater facilities and does this on an as-needed basis. The city is beginning a survey of its approximately 70 retention/detention ponds to evaluate their performance and develop maintenance plans for each. Private owners are responsible for maintaining their own facilities, although for more recently developed properties, the city can do the maintenance (and be reimbursed) if the private owner fails to do so. Financial penalties may be assessed if private owners do not maintain facilities; however, a pro-active stormwater monthly service rate provides a positive financial incentive to properly maintained private facilities that provide a detention, infiltration, retention, or water quality benefit. This incentive encourages more responsible stewardship and maintenance of private facilities. Inspections of private facilities are conducted annually in accordance with recorded facility maintenance agreements.

Stewardship

Auburn offers a program to help educate citizens on salmon-friendly gardening choices, offers classes and workshops in composting, and participates in (and helps sponsor) a number of regional events, school programs, and festivals that focus on water and environmental stewardship.

Features Particular to City

Auburn has developed a maintenance agreement for privately owned stormwater facilities for new developments. This agreement is recorded with the property and is binding upon successors, heirs, and assigns. The agreement requires proper maintenance of stormwater facilities by specifying those activities that must be routinely performed or inspected for assuring a properly functioning condition.

The fire and public works department of Auburn work closely together on spill response and prevention, with clear operating procedures for each.

The Auburn stormwater manual actively encourages infiltration of stormwater whenever soils allow. This encourages groundwater recharge, as well as reduces the load on stormwater conveyance systems and receiving waters.

The city has inventoried its ditches and will decide on a maintenance plan based on the need to protect sensitive areas including salmon habitat.

Auburn has developed a cost-effective (\$200) device, which can be locally fabricated from common plumbing parts that facilitates dechlorination of water discharged from dead-end mains during maintenance and line flushing operations. The device specifications are available from the city for use by others.

Over the last three years, volunteers organized by the city have logged over a 1,000 hours improving and restoring habitat.

Notable Projects

- Removal of accumulated vegetation and replanting riparian vegetation in Auburn's 400 floodway storage ponds to improve stormwater conveyance also contributes to water quality benefits such as temperature reduction and improving dissolved oxygen in a tributary to Mill Creek at a cost of \$255,000.
- Renewal of vegetation and removal of sediments in a sub-basin biofiltration swale that outfalls to the Green River at a cost of \$200,000.

- Major improvement of water quality, stormwater conveyance, and infiltration in south-central Auburn at a cost of \$1.9 million.
- Acquisition of 35 acres for stormwater management and wetland mitigation associated with the Mill Creek Special Area Management Plan.
- Construction of a new decant facility for storage and disposal of street sweepings at a cost of \$370,000.

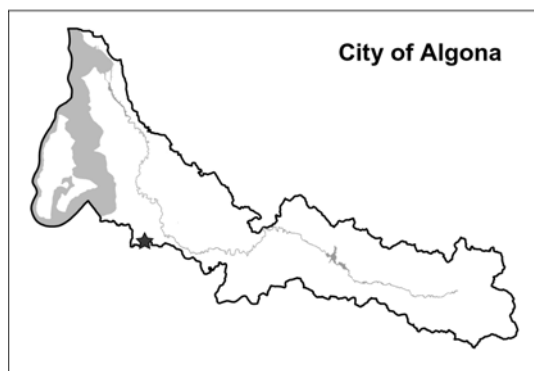
City of Algona

Efforts to Recover Salmon Habitat

Population: 2,500 (2001 est.) (split between WRIA 9 and WRIA 10)

Incorporated: 1955

1.4 square miles in the Lower Green River subwatershed



Land Use and Riparian Conditions

Programs and Expertise: Algona has consulting engineers with special expertise available to assist city staff in reviewing proposed developments and identifying resource protection issues.

Buffers and Habitat: Buffers are not required next to streams. Only one stream in Algona is in WRIA 9, which is known alternatively as the C-4 ditch or Algona Creek, and land adjacent to it is already developed.

Stormwater and Water Quality

Construction Regulation: Algona inspects construction sites at least once during construction but as often as weekly for some projects.

Water Quality Controls: The city has a stormwater utility. Algona has a spill response program provided by the Auburn fire department. Water quality complaints are investigated.

Stormwater Regulations: Algona uses the 1998 draft Washington State Department of Ecology stormwater manual and applies flow control level 1.

Maintenance: Algona maintains its own facilities on an as needed basis and inspects privately owned facilities when construction is completed and about once a year thereafter.

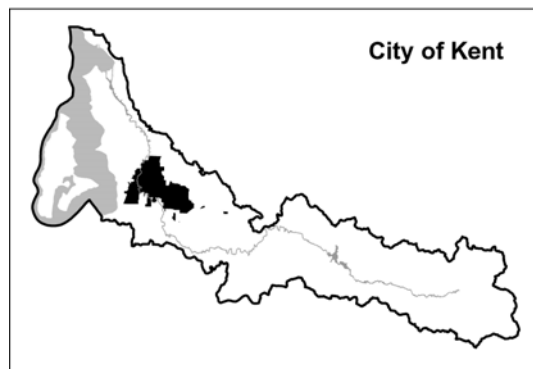
City of Kent

Efforts to Recover Salmon Habitat

Population: 81,900 (2001 est.)

Incorporated: 1890

*29 square miles in the
Lower Green River Subwatershed*



Land Use and Riparian Conditions

Programs and Expertise: Kent began reviewing current policies, programs, and practices to determine their relationship to salmon protection in 2000; the process is still ongoing. The city has staff with special expertise to work with developers as they respond to salmon recovery issues. Kent requires special State Environmental Policy Act review, including detailed fisheries studies, for all developments within 200 feet of streams, and for major development projects within the Meridian valley. Kent is a partner with Auburn, Renton, Tukwila, and King County in the Green River Flood Control District. While the primary purpose of the District is flood protection, most projects and maintenance include efforts to improve riparian habitat on the Green River. The city has participated with Auburn and King County in developing the Mill Creek Flood Management Plan and Mill Creek Special Area Management Plans, which address protection of aquatic resources including salmon.

Buffers and Habitat: Buffers of 100 feet are required on streams in the Meridian Valley area. The city is involved in programs to acquire or protect habitat (the Mill Creek Special Area Management Plan, Green River Natural Resources Enhancement project, and the Ecosystem Restoration Project).

Stormwater and Water Quality

Construction Regulation: Kent inspects construction sites for the control of erosion and sedimentation; inspectors have the authority to halt work and issue fines. Education (in-field training) is offered to staff on erosion and sedimentation control.

Water Quality Controls: Kent has a spill response program implemented by the fire department, with a special manual to assure appropriate procedures. In addition, all Public Works Department vehicles are equipped with spill response kits, and staff members are being trained in appropriate spill response. The city collects data on water quality including temperature, turbidity, dissolved oxygen, metals, and benthic invertebrates (BIBI). Water

quality complaints are investigated and referrals given; information on control of pollutants is available to businesses and residents.

Stormwater Regulations: Kent has adopted and uses the 1990 King County stormwater manual and expects to adopt the 1998 King County manual by 2002.

Maintenance: Kent is responsible for maintaining residential stormwater facilities; private owners are responsible commercial and industrial facilities. Inspections are done every two years.

Stewardship

Kent offers classes and workshops on salmon-friendly activities and helps organize and participates in a variety of volunteer activities.

Features Particular to City

- Kent has a comprehensive water conservation program with far-reaching benefits for water quality, quantity, and salmon recovery.
- A comprehensive fisheries assessment is being completed on three key sub-basins in the city.
- A limiting factors report is being completed on Mullen Slough in partnership with Auburn and King County.
- Kent has a specialized maintenance program for both utilities and roads, assuring that maintenance is done in a salmon-friendly manner.
- A wellhead protection program has been in place since 1996 to preserve and protect water quality.

Notable Projects

Several projects are being implemented in Kent as a part of the Ecosystem Restoration Project sponsored by the U.S. Army Corps of Engineers, as well as others sponsored by the city.

- Establish a new stream system from Meridian Valley Creek to Big Soos Creek that replaces a concrete lined channel.
- Create a new stream system from Lake Meridian to Big Soos Creek to replace a degraded ditch outlet.

- Restore Garrison Creek, a highly affected creek in the city.
- Develop groundwater sources to augment instream flow in Mill, Garrison, and Springbrook Creeks.
- Implement several projects (wetlands enhancement, wildlife and fisheries habitat improvements and stormwater management improvements) in the Mill Creek Valley (part of the Mill Creek Special Area Management Plan).
- Conduct smolt counts at Black River Pump station to determine salmon use of a tributary stream (Springbrook Creek).
- Create multi-purpose stormwater/wetland/habitat on 300 acres of the Mill Creek Valley along with the Washington State Department of Ecology and King County as part of the Green River Natural Resources Enhancement Project.

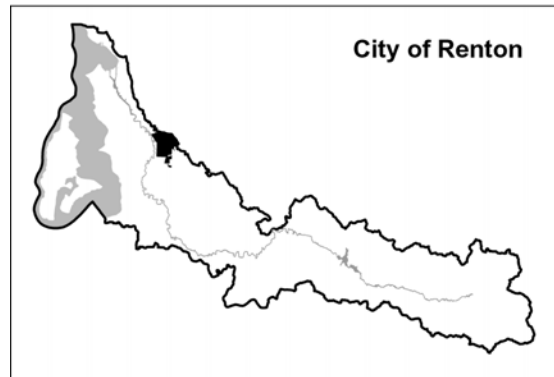
City of Renton

Efforts to Recover Salmon Habitat

Population: 51,140 (2001 est.) (split between WRIA 9 and WRIA 8)

Incorporated: 1901

16.8 square miles (total city area split between WRIA 9 and WRIA 8) partly in the Lower Green River subwatershed



Land Use and Riparian Conditions

Programs and Expertise: Renton is currently reviewing policies, programs, and practices to determine their relationship to salmon protection. The city has staff with special expertise available to assist developers as they respond to salmon recovery issues. The county-wide Public Benefit Rating System is used by Renton to provide incentives for private landowners as a way of protecting or restoring habitat voluntarily. Renton is a partner with Auburn, Kent, Tukwila, and King County in the Green River Flood Control District. While the primary purpose of the District is flood protection, most projects and maintenance activities include efforts to improve riparian habitat on the Green River.

Buffers and Habitat: Buffers are required on streams regulated by the city's Shoreline Master Program, and the city has a program to acquire or recover salmon habitat. In addition, no tree cutting, land clearing, or groundcover management (except enhancement) is permitted within 25 feet of creeks, streams, rivers, lakes, and other shoreline areas.

Classification	Buffer Width
Streams under Renton's tree cutting and land clearing regulations	Minimum 25 feet, can be increased through State Environmental Policy Act review

Stormwater and Water Quality

Construction Regulation: The city inspects construction sites including plats and public works projects daily for the control of erosion and sedimentation. Inspectors have the authority to halt work and the city has two code enforcement officers who can issue fines. Education is offered for staff on erosion and sedimentation control, and on-site private inspectors are required for some types of development as a State Environmental Policy Act condition. Before a project begins, staff holds a pre-construction meeting attended by the

Public Works project manager, construction inspector, and contractors. Expectations on temporary erosion and sedimentation control plans are communicated to the contractor at these meetings.

Water Quality Controls: Renton has a spill response program managed by the fire department in coordination with the Public Works Department. Information on control of pollutants is available to businesses and residents. Renton is also involved several regional water quality programs, including the Ecosystem Restoration Project. Water quality complaints are investigated and referrals given.

Stormwater Regulations: The city has adopted and uses the 1990 King County stormwater manual, but requires the use of the 1998 King County manual as a State Environmental Policy Act condition in certain geographic areas.

Maintenance: Renton maintains city-owned stormwater facilities. Homeowners association in residential plats and commercial property owners are responsible for maintaining their own stormwater facilities.

Stewardship

Renton's Solid Waste Utility conducts education programs and technical assistance for green gardening and recycling programs. Programs have included an integrated pest management demonstration garden, natural gardening kits and guides, composting and worm bin workshops, special recycling collection events, and elementary classroom presentations. These programs emphasize the proper use, storage, and disposal of hazardous substances such as fertilizers, pesticides, and herbicides. The programs promote the use of alternative natural or less hazardous substances to protect water quality and public health. Renton's Surface Water Utility is a co-sponsor with other jurisdictions and coordinates a Salmon Watchers Program within the city that utilizes volunteers to conduct spawning surveys of the city's streams.

Features Particular to City

Renton has several plans and procedures in place to protect water quality. In addition to a wellhead protection plan, Renton also has a draft comprehensive surface water plan and a wastewater management plan, both of which address issues related to protection of surface waters. Renton's Aquifer Protection Program protects the city's groundwater supply and surface water resources through regulations, public education, and other best management practices. Renton has a standing Environmental Review Committee that issues State Environmental Policy Act determinations for projects within the city and can require mitigation for projects that have environmental impacts. Renton has established an Endangered Species Act Task Force comprised of representatives from all divisions in the city. The Task Force is responsible for coordinating the city's Endangered Species Act response, administering contracts, and disbursing information.

- Renton has a water conservation program and administers a Surface Water Utility capital improvement program.
- Renton has instituted a program to develop standards, review projects, and offer public education and technical assistance related to surface water.
- Charity car washes are offered technical assistance by the City of Renton so they will not pollute streams.

Notable Projects

- Built new culvert and fish ladder at crossing with SR 167.
- Replaced undersized culvert under Olympic Pipeline crossing.
- Working to create wetland and fish habitat along Springbrook Creek channel to improve fish habitat as part of the Ecosystem Restoration Project.
- Replaced the SW 27th Street culvert crossing of Springbrook Creek.
- Working to restore habitat along upper Springbrook Creek as part of the Ecosystem Restoration Project.
- Acquired 64 acres of wetlands along the east side of SR 167 (Panther Creek Wetlands).
- Developing a wetland mitigation bank area within a large wetland contiguous to Springbrook Creek, which will include the installation of riparian planting along Springbrook Creek.
- Widened channel and made habitat improvements to Springbrook Creek when the Oakesdale Bridge was constructed upstream of SW 16th Street.
- Stabilized channel and improved vegetation and conveyance capacity of channel along SW 23rd Street.
- Acquired approximately 60 acres of the Black River riparian forest properties at a cost of approximately \$8.4 million for habitat and open space preservation. Sources of funding included 1989 Open Space Bond Issue Funds (King County portion - \$342,000), 1989 Open Space Bond Issue Funds (Renton portion - \$283,000), King County Conservation Futures Grants (\$1,709,000), Interagency Committee for Outdoor Recreation Habitat Grant (\$228,000), Metro Shoreline Improvement Fund Grant (\$721,000) Metro Mitigation (\$3,500,000), and City of Renton (\$87,000).

- Acquired approximately 38 acres for the construction of the Black River pump station and storage pond to provide flood storage and function as a constructed wetland that provides water quality benefits and included habitat plantings.
- Constructed channel improvement between the Black River pump station and the Oakesdale Ave. SW bridge that included fish habitat enhancements and plantings that improved the channel habitat. Fish passage was improved.
- Acquired approximately 100 acres of wetland along Springbrook Creek and in the Renton Green River Valley to protect the wetland from development pressures and to provide fish habitat, water quality, and flood storage.



Elliott Bay/Duwamish Subwatershed

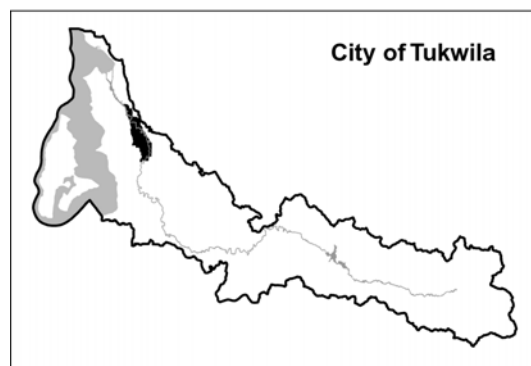
City of Tukwila

Efforts to Recover Salmon Habitat

Population: 17,230 (2001 est.)

Incorporated: 1908

8.5 square miles in the Lower Green River and Elliott Bay/Duwamish subwatersheds



Land Use and Riparian Conditions

Programs and Expertise: Tukwila is in the process of reviewing current policies, programs, and practices to determine their relationship to salmon protection. Tukwila is a partner with Auburn, Kent, Renton, and King County in the Green River Flood Control District. While the primary purpose of the District is flood protection, most projects and maintenance include efforts to improve riparian habitat on the Green River. Tukwila is developing a program to offer incentives to private landowners who protect or restore habitat voluntarily. The city has staff with special expertise to review proposed developments and identify resource protection issues. Tukwila funds a full-time biologist to manage habitat restoration and other fisheries activities.

Buffers and Habitat: Buffers are required on streams other than the Green/Duwamish River. The width of these buffers is keyed to the Washington State Department of Natural Resources classification for the stream.

Classification	Buffer Width
Class 1	70 feet
Class 2	35 feet
Class 3	15 feet
Commercial setbacks	15 feet from buffer
Residential setbacks	10 feet from buffer

Along the Green/Duwamish River, the following protections apply:

Classification	Restriction	Buffer Width
River environment	No touch	40 feet from edge of river
Low impact environment	Buildings limited to 35 feet in height and certain uses must be screened from river	From edge of river environment to 100 feet from edge of river
High impact environment	None	Beyond 100 feet from edge of river

Stormwater and Water Quality

Construction Regulation: The city inspects construction sites for the control of erosion and sedimentation; the frequency of these inspections depends on the site and project. Inspectors have the authority to halt work. Code enforcement officers may issue fines.

Water Quality Controls: A State Environmental Policy Act checklist helps developers and project proponents become aware of activities near streams that could affect water quality. Tukwila has a spill response program that includes use of a vacator truck and oil containment booms; the fire department is involved in implementation. To date, Tukwila has developed stormwater/water quality management plans for three of the four principal basins in the city: Fostoria, Riverton, and Gilliam creeks. The city collected data on water quality (pH, temperature, dissolved oxygen, phosphorous, nitrogen, total suspended solids, dissolved metals, and others) as part of these basin stormwater management plans. Water quality complaints are investigated and referrals given.

Stormwater Regulations: Tukwila has adopted and uses the 1998 King County stormwater manual and applies flow control level 1 for most facilities handling runoff.

Maintenance: Tukwila maintains city-owned stormwater facilities and does this work on a schedule appropriate to the type of facility. Private owners are responsible for maintaining their own facilities.

Stewardship

Tukwila offers a program to help educate citizens on salmon-friendly gardening choices. The city also has participated in and helped organize volunteer activities such as Salmon in the Classroom, planting projects, and storm drain stenciling. Tukwila also has an annual creek restoration program.

Features Particular to City

Tukwila has a city-wide water quality management program, a flood ordinance, a Shoreline Master Plan, and six year master plan.

Tukwila has an annual creek restoration program that devotes \$50,000 per year for creek improvements.

Notable Projects

- In cooperation with other partners, construct a side channel and intertidal marsh at Codiga Farms. Tukwila is contributing \$300,000 to this \$1.1 million Ecosystem Restoration Project.
- In cooperation with other partners, purchase of Duwamish Site 1 for habitat restoration. Tukwila is contributing \$100,000 to this \$2 million Ecosystem Restoration Project.
- In cooperation with other partners, retrofitting or removal of three flap gates to allow fish passage and habitat improvements at two separate sites. Tukwila is contributing \$225,000 for these Ecosystem Restoration Project projects.
- Reconnect abandoned Nelson Place river channel to create a side channel for fish.
- Replace, improve, or enlarge culverts at four locations to allow for fish passage.
- Construct 27.5 acre-feet regional detention pond in the Gilliam Creek drainage.
- Construct a high-flow bypass in International Boulevard area.
- Restore a total of 700 feet of habitat along Southgate and Gilliam creeks.

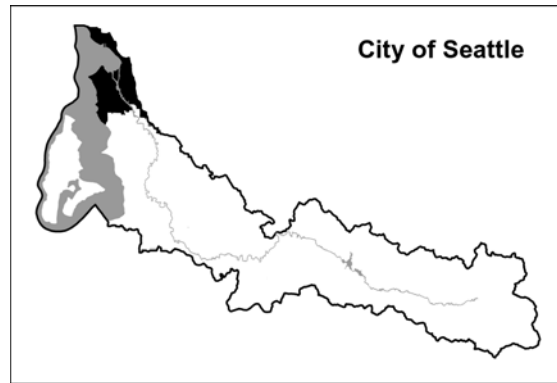
City of Seattle

Efforts to Recover Salmon Habitat

Population: 568,100 (2001 est.) (split between WRIA 9 and WRIA 8)

Incorporated: 1865

86.9 square miles in the Elliott Bay/Duwamish and Nearshore subwatersheds



Coordinated City Response to the Endangered Species Act Listing

Programs and Expertise: Each Seattle department is responsible for reviewing its current policies programs and practices to determine their relationship to salmon protection. The city has funded a salmon team with representatives from many departments to develop the city’s Endangered Species Act approach and ensure salmon enhancement is integrated into capital projects, operations, and programs city-wide. Seattle has full-time Endangered Species Act coordinators for each of the watersheds in which the city is involved.

Land Use and Riparian Condition

Seattle is in the process of updating its Shoreline Master Plan as required by state law. Several interim regulations are being considered until this update is completed. Seattle has a fisheries biologist with special expertise to work with developers as they respond to salmon recovery issues. Pre-application inspection was begun early (February 2000) for environmentally sensitive areas and was extended to all projects with land disturbance by July 2001. The site development team makes a site visit to determine pre-development conditions and to let the applicant know what studies will be required with the application. A variety of incentives are available to private landowners to transfer development from rural areas in exchange for additional height in the city.

Buffers and Habitat: Buffers are required on salmon-bearing streams and near-shore areas. Requirements vary according to the nature of the stream (whether permanent or intermittent) and whether the proposed land use is water dependent or not. The typical range of buffer width is given below.

Classification	Buffer Width
Streams	25 feet intermittent; 50 feet, perennial
Shoreline	0 to 75 feet, depending on whether use is water dependent or not

Seattle has several programs to acquire or recover salmon habitat both within the city and in watershed areas owned and operated by the city. Neighborhoods interested in restoring or protecting habitat can apply to the \$3.5 million Neighborhood Matching Fund to support these activities. Seattle also has a significant tree ordinance that requires protection of trees both in public areas and on private property.

Stormwater and Water Quality

Construction Regulation: Erosion and sediment control plans are required of development and construction. The site development team includes erosion control issues in its pre-application inspection. Seattle inspects erosion control facilities after installation and may return for additional inspections, the frequency varying with the size and complexity of the project. For especially complex projects or projects near sensitive resources, on-site private inspectors can be required for development as a State Environmental Policy Act condition and also as a part of regulations associated with critical areas. An additional shoreline inspector has been added, and inspectors have the authority to halt work and issue fines. Education is offered through internal courses for staff on erosion and sedimentation control.

Water Quality Controls: Seattle distributes educational material to discourage the misuse of pesticides and other contaminants and recently instituted a pesticides-free park program, which includes the Fairmont playfield in WRIA 9. The city has a spill response program that includes staff coordinators on duty around the clock seven days a week. Either city staff or contractors provide spill response. Source control is provided through a business inspection program that will soon expand from 1.5 to 4 inspectors. Seattle also has contracted with the Environmental Coalition of South Seattle to provide source control information, voluntary inspections, and advice for businesses in some parts of south Seattle. Seattle is a partner in the remedial investigation for the Duwamish Superfund Cleanup, a major regional water quality project. Seattle collects water quality data on metals and nutrients. Water quality complaints can be made via a hotline; these are investigated and referrals are given.

Stormwater Regulations: Seattle has adopted and uses its own stormwater manual that includes features from the manuals of both the Department of Ecology and King County. Rather than flow control levels, Seattle sets flat discharge rates based on the size of project, which better reflects the fact that near complete buildout has already occurred in the city.

Maintenance: Seattle is responsible for maintaining city-owned stormwater facilities; private owners are responsible for maintaining their own. Although there are no incentives for maintenance, inspections are made every three to five years.

Stewardship

Seattle offers numerous programs to help educate citizens and businesses about all aspects of water-related stewardship. It offers grants to assist community groups doing projects that improve and protect surface water resources. Longfellow Creek has been a focus of property

acquisition, habitat restoration, and stewardship. Recently the city purchased several lots on the creek to better protect this important resource. Other work has focused on restoring fish access to Fautleroy Creek. Citizens in this area have recently completed a watershed action plan. Stewardship programs range from hands-on (such as the removal of invasive species, planting along creeks and charity car wash kits to prevent soapy water from entering storm drains) to education programs like the Beach Naturalist Program. In addition to an extensive water conservation program (which includes incentives for purchasing water efficient toilets and washing machines), Seattle has offered creekside living workshops, a green gardening program that explains alternatives to pesticides, a program focused on composting and natural lawn care, and a program to work with commercial users to improve irrigation efficiency and increase the use of water-smart technology. The city has participated in the Northwest Flower and Garden Show to demonstrate a salmon-friendly garden, offering the public sound landscape alternatives. Seattle runs a program to bring salmon-related curriculum into the schools, offers grants to schools to convert asphalt to green spaces, and provides kits for storm drain stenciling, which reminds people not to dump toxics into storm drains.

Nearshore Activities

Buffers of 25 to 50 feet are required for streams, with intermittent streams having narrower buffers and permanent streams having wider buffers. Shoreline buffers range from 0 to 75 feet, the widest buffers applying where there are not water dependent uses, and narrower or no buffers for water-dependent uses. Docks, piers, bulkheads, and riprap are regulated and assistance is offered to minimize shoreline erosion. Seattle offers assistance and guidance to those who must manage stormwater in bluff areas.



Nearshore Subwatershed

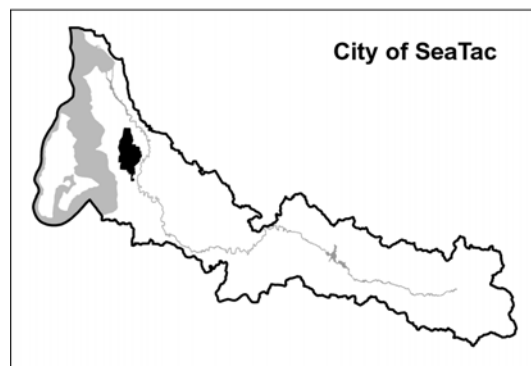
City of SeaTac

Efforts to Recover Salmon Habitat

Population: 25,380 (2001 est.)

Incorporated: 1990

12 square miles in the Lower Green River and Nearshore subwatersheds



Land Use and Riparian Conditions

Programs and Expertise: In 2001, the city reviewed current policies, programs and practices to determine their relationship to salmon protection. SeaTac has staff with special expertise to review proposed development and identify resource protection issues, and SeaTac offers incentives on a case-by-case basis to private landowners who protect or restore habitat voluntarily.

Buffers and Habitat: Buffers are required on salmon-bearing streams. In addition to these buffers, a 15-foot building setback is required for all stream classes.

Classification	Buffer Width
Class 1	100 feet
Class 2 salmon-bearing	100 feet
Class 2	50 feet
Class 3	25 feet

Stormwater and Water Quality

Construction Regulation: SeaTac inspects Public Works Department construction sites daily and other sites periodically for the control of erosion and sedimentation, more frequently during months of inclement weather. Inspectors have the authority to halt work. Education is offered for staff on erosion and sedimentation control. Staff members attend training courses taught by the Washington State Department of Transportation, King County, the University of Washington, or other agencies.

Water Quality Controls: SeaTac has a spill response program in partnership with the Public Works Department and the Department of Ecology. Water quality complaints are investigated and referrals given; information on control of pollutants is available to businesses and residents.

Stormwater Regulations: SeaTac has adopted and uses the 1998 King County stormwater manual.

Maintenance: The city is responsible for maintaining stormwater facilities and uses contractors for some of this work. Commercial and industrial owners are responsible for maintaining their own facilities; incentives are offered for this maintenance, and inspections made annually. In 2000, SeaTac implemented a program in which multi-family, commercial, and industrial property owners who document maintenance of their stormwater facilities receive a 25 percent rebate of their surface water management fees. The city also offers to have these systems cleaned at the same rates as the city receives.

Stewardship

SeaTac offers a program to help educate citizens on salmon-friendly gardening choices, offers other classes and workshops on waste reduction and recycling and household hazardous waste, and hosts collection events for other wastes such as tires and appliances.

Notable Projects

- Upgrade the design and maintenance of the 204th Street detention pond to help protect water quality in Des Moines Creek.
- Install a swale in the median of 28th/24th Avenue to aid in flood control, infiltration, and water quality.

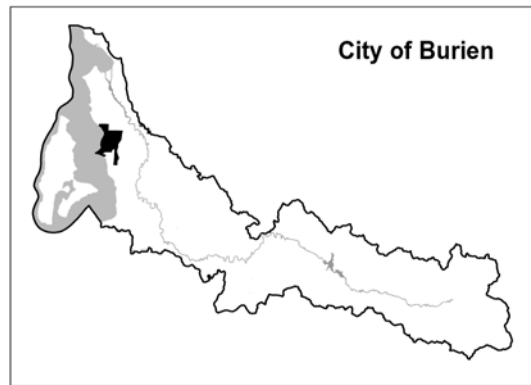
City of Burien

Efforts to Recover Salmon Habitat

Population: 31,830 (2001 est.)

Incorporated: 1993

*6.9 square miles in the
Nearshore subwatershed*



Land Use and Riparian Conditions

Programs and Expertise: In 2002, Burien will do a thorough review of current policies, programs and practices to determine their relationship to salmon protection. If development is proposed for a sensitive area, Burien requires a stream/wetland report that is peer reviewed by specialized consultants. Burien offers incentives to private landowners who protect or restore habitat voluntarily.

Buffers and Habitat: Buffers are required near streams and nearshore areas, and the city has a program to acquire or recover salmon habitat.

Classification	Buffer Width
Class 1 stream and Class 2 with salmonids	100 feet
Class 2	50 feet
Class 3	25 feet
Nearshore	20 feet from ordinary high water mark

Stormwater and Water Quality

Construction Regulation: Burien inspects construction sites at least once a week for the control of erosion and sedimentation; more if the weather is wet. Inspectors have the authority to halt work and issue fines. Educational materials are given to contractors on erosion and sedimentation control.

Water Quality Controls: The city contracts with King County Roads Division for spill response and works to find those responsible for any spill. Burien is actively involved in the Miller Creek Basin Plan, which addresses regional water quality. The city is a member of the Airport Cities Coalition, which collects water quality data on Miller, Walker, and Des Moines creeks. The Coalition collects information on pH, dissolved oxygen, temperature, and heavy metals in each creek. Water quality complaints are investigated and referrals

given; information on control of pollutants is available to existing businesses and residents through the fire department and is made available for new construction through the planning/public works department.

Stormwater Regulations: Burien has adopted and uses the 1998 King County stormwater manual, and applies flow control levels 1 and 2 to facilities handling runoff, depending on the need.

Maintenance: Burien is currently in the process of setting up a stormwater utility. Currently, King County sets and collects a stormwater management fee and handles inspection and maintenance of all publicly and privately owned stormwater facilities.

Nearshore Activities

Setbacks of 20 feet are required from shorelines, and Burien offers assistance and guidance to those who must manage stormwater in bluff areas. Both the Critical Areas Ordinance and the King County manual provide guidance on stormwater management on bluffs. The city works with the Washington Department of Fish and Wildlife to encourage developers to employ best management practices related to shoreline erosion. Bulkheads and riprap are discouraged (though allowed), and docks, piers, bulkheads and riprap are regulated. Burien is also involved with the Nearshore General Investigation Study with the U.S. Army Corps of Engineers and other jurisdictions.

Features Particular to City

Burien has two unique approaches for protecting salmon that utilize the land use planning process. One is a binding site plan system that allows flexibility in development design, encouraging low-impact development strategies. The second is a moratorium on filling of stormwater ditches and conveyances.

Notable Projects

Under a Salmon Recovery Funding Board grant, Burien is studying alternatives for removing all or part of the seawall at Seahurst Park. Burien also actively pursues the acquisition of valuable and sensitive habitat. Two important properties are being acquired now:

- A parcel adjoining Seahurst Park
- A seven-acre property along the Puget Sound waterfront, paid for in part by a proposed Salmon Recovery Funding Board grant.

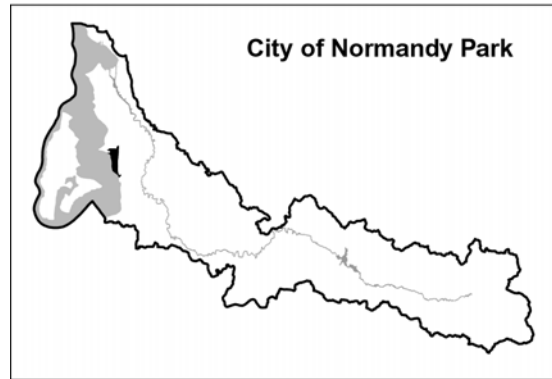
City of Normandy Park

Efforts to Recover Salmon Habitat

Population: 6,405 (2001 est.)

Incorporated: 1953

3.0 square miles in the Nearshore subwatershed



Land Use and Riparian Conditions

Programs and Expertise: Normandy Park expects to review current policies, programs, and practices to determine their relationship to salmon protection in 2002. Through its Sensitive Areas Ordinance, the city requires developers to file specialized environmental reports to respond to salmon recovery issues on specific properties.

Buffers and Habitat: Buffers are required on salmon-bearing streams and near-shore areas, and the city has a program to acquire or recover salmon habitat.

Classification	Buffer Width
Salmon bearing	100 feet
Nearshore	100 feet

Stormwater and Water Quality

Construction Regulation: Normandy Park inspects construction sites every two weeks for the control of erosion and sedimentation; inspectors have the authority to halt work and issue fines. Educational materials are offered to contractors with their building permit applications.

Water Quality Controls: Activities near streams are controlled through the enforcement of buffers. The city has a spill response program. Normandy Park is involved in a joint project with the Airport Cities Coalition to collect water quality information on three streams in the area. Data collected include pH, dissolved oxygen, temperature, and heavy metals. Water quality complaints are investigated and referrals given; information on control of pollutants is available to businesses and residents.

Stormwater Regulations: Normandy Park has adopted and uses the 1998 King County stormwater manual and applies flow control levels according to what is in the manual.

Maintenance: Normandy Park maintains all city swales and catch basins and inspects large facilities on an annual basis.

Stewardship

Normandy Park offers classes on composting as a salmon-friendly practice.

Nearshore Activities

Setbacks of 100 feet are required from shorelines and bluffs. Normandy Park, together with the other central Puget Sound cities, is working to develop educational signage for its beaches. This signage will provide beach-goers with information about the nearshore environment.

Features Particular to City

Normandy Park has a brochure for residents that offers information on wetlands, construction erosion control, waste reduction, and other topics that will help citizens determine how each can aid in salmon recovery.

Normandy Park is doing an engineering study to bring the city into compliance with federal National Pollutant Discharge Elimination System requirements.

Notable Projects

- Acquire a parcel with wetlands near Nature Trails Park
- Acquire a parcel with wetlands and a stream within the Walker Creek basin
- Conducted stream restoration along Miller Creek with Trout Unlimited.

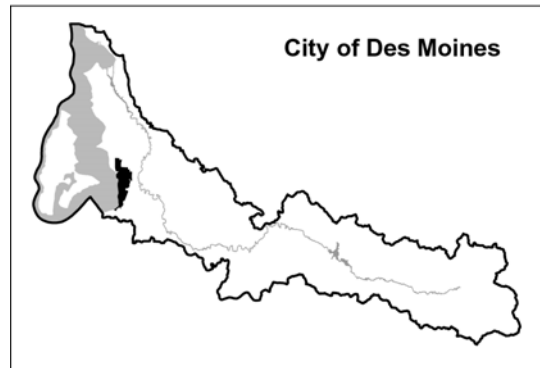
City of Des Moines

Efforts to Recover Salmon Habitat

Population: 29,600 (2001 est.)

Incorporated: 1959

*5.8 square miles in the
Nearshore subwatershed*



Land Use and Riparian Conditions

Programs and Expertise: Des Moines reviewed current policies, programs and practices in 2000 to determine their relationship to salmon protection. The city has staff with special expertise to review proposed developments and identify resource protection issues.

Buffers and Habitat: Buffers are required near streams and near-shore areas; the width of these buffers depends upon the classification of the stream (WDNR Classification).

Classification	Buffer Width
Significant streams (Types 1, 2, and 3)	100 feet
Important streams (Types 4 and 5)	35 feet

Stormwater and Water Quality

Construction Regulation: Des Moines inspects construction sites more than once for control of erosion and sedimentation; often these are surprise inspections. Inspectors have the authority to halt work and issue fines. Staff members attend courses on erosion and sedimentation control and receive certification. On-site inspectors are required for city projects; private developments must file an erosion control plan.

Water Quality Controls: Des Moines has a spill response program. The city is involved in the Des Moines Creek Basin Plan, and has developed a basin plan for Massey Creek and Barnes Creek to address flooding and regional water quality. In 2001 the city completed a 5-year water quality monitoring program that collected water quality data from its four major streams including temperature, pH, dissolved oxygen, turbidity, fecal coliform, total suspended solids, phosphorus, ammonia, nitrates, nitrites, copper, lead, and zinc as well as benthic invertebrate sampling. The city plans to continue water quality testing at all creek outlets every three years starting in 2003. Water quality complaints are investigated and referrals given; information on control of pollutants is available to businesses and residents.

Stormwater Regulations: Des Moines has adopted and uses the 1998 King County stormwater manual.

Maintenance: The city is responsible for maintaining city-owned and single-family residential stormwater facilities, as well as other facilities that contract with the city for these services. Maintenance occurs twice per year for major facilities and biannually for conveyance systems. Des Moines is working on an ordinance to require maintenance of private facilities and will inspect private facilities as part of the enforcement of this program.

Stewardship

Des Moines works with groups to help support volunteer restoration and salmon recovery events, particularly in Des Moines Creek. Parks crews help water plants in restoration projects, and the city provides publicity through its newsletter.

Nearshore Activities

Setbacks are required from bluffs, and the city offers assistance and guidance to those who must manage stormwater in slide-prone bluff areas. The city also works extensively with its marina, using best management practices and installing signs about water quality and other shoreline issues.

Features Particular to City

Des Moines is working with the City of Kent to make major improvements to stormwater facilities along Pacific Highway South, bringing the facilities to a pre-development state. The city hopes to do this for all major arterials.

The city is currently doing an in-depth study of the Redondo Waterfront to determine how best to improve recreation facilities and stormwater management of that area.

Des Moines sends citizens a newsletter with helpful and interesting information on issues related to water, water quality, and fish.

The city is reviewing parcel information along significant stream corridors for potential property acquisition or conservation easements.

Notable Projects

- Replace culvert and improve fish passage at 16th Avenue where a road slide and collapsed culvert had occurred in 1999.

- Replace culvert and make other major improvements along Marine View Drive at Massey Creek and Des Moines Creek crossings, including daylighting 250 feet of Des Moines Creek.
- Replace undersized culvert with two bridges along 10th Avenue at Massey Creek crossing to open up fish passage and daylight stream.
- Refurbish and increase acreage of a 2-acre wetland near Barnes Creek, construct wetland biofiltration detention facility, replace culvert, and daylight about 150 feet of Barnes Creek.
- Remove a significant fish barrier by replacing the culvert near the confluence of Barnes Creek and Massey Creek, where Barnes Creek passes beneath Kent-Des Moines Road.
- Widening the lower channel of Massey Creek between 10th Avenue and Marine View Drive to provide stream complexity and habitat features.

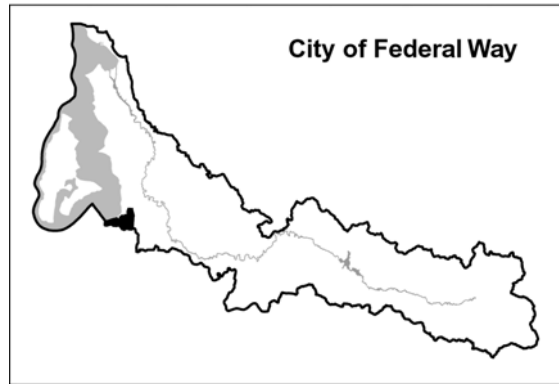
City of Federal Way

Efforts to Recover Salmon Habitat

Population: 83,890 (2001 est.) (split between WRIA 9 and WRIA 10)

Incorporated: 1990

21.5 square miles in the Nearshore and Lower Green River subwatersheds



Land Use and Riparian Conditions

Programs and Expertise: In 2001, Federal Way reviewed current policies, programs and practices to determine their relationship to salmon protection. The city has staff with special expertise to work with developers as they respond to salmon recovery issues. Federal Way offers incentives to private landowners who protect or restore habitat voluntarily. These incentives include streamlined permitting for those including salmon recovery or protection efforts in their projects and reduced fees if the developer goes beyond standards.

Buffers and Habitat: Buffers are required on salmon-bearing streams and wetlands depending on the particular classification of the stream or shoreline.

Classification	Buffer Width
Salmon bearing streams	100 feet through State Environmental Policy Act
Other streams	50 feet minimum
Salmon bearing wetlands	200 feet
Other wetlands	25-100 feet

Federal Way has a program to acquire and recover salmon habitat.

Stormwater and Water Quality

Construction Regulation: The city inspects construction sites frequently (more than five times during construction) for the control of erosion and sedimentation. Inspectors have the authority to halt work and issue fines. Staff members are sent to WSDOT training on erosion and sedimentation control and are given the opportunity to attend local and national meetings of the International Erosion Control Association. The Surface Water Management division provides training to building inspectors so that they can ensure that erosion control measures are working properly. Federal Way provides handouts to single-family residential contractors on erosion sediment control practices, and holds pre-construction meetings with

all contractors in which erosion and sediment control are discussed. On-site private inspectors are required for development as a State Environmental Policy Act condition.

Water Quality Controls: Activities near streams such as animal access, certain farming activities, development and herbicide use, are controlled and the city has a very comprehensive spill response program that includes all public works field employees and fire and police personnel as well. Federal Way is involved in the Green/Duwamish Ecosystem Restoration Project. Federal Way collects data on water quality including temperature, pH, conductivity, turbidity and dissolved oxygen. Water quality complaints are investigated and referrals given; information on control of pollutants is available to businesses and residents.

Stormwater Regulations: The city has adopted and uses the 1998 King County stormwater manual modified to fit Federal Way needs. The city applies three flow control levels, depending on the facility and stream affected.

Maintenance: Federal Way is responsible for maintaining city-owned stormwater facilities three times a year. The city also inspects any new single-family facilities, and older ones that are transferred to the city. Private owners are responsible for maintaining their own facilities, usually biannually. Fines can be levied if private owners do not maintain their facilities. Also, Federal Way offers private owners the opportunity to apply for reduced surface-water management fees if they maintain their facilities properly.

Stewardship

Federal Way offers classes and workshops on salmon-friendly activities (these are offered through the Stream Team) and expects to soon hire a person to organize green gardening programs. Federal Way also offers compost bins at reduced rates, and has a strong recycling program.

Nearshore Activities

Bulkheads, riprap, docks, and piers are regulated. Setbacks are required from shorelines and bluffs. These depend on land use, the critical area designation, zoning, and lot size. The State Environmental Policy Act process can be used to increase buffers and setbacks; the typical baseline buffer is 50 to 75 feet. Federal Way can offer assistance and guidance to those who must manage stormwater in bluff areas.

Features Particular to City

- Federal Way is at the forefront of stormwater planning and implementation and nearshore protection. The city was recognized by the Department of Ecology for its efforts in 1998.

- Federal Way has updated and produced a detailed water quality protection map displaying standards to be met in different parts of the city. This aid is available to staff and developers and is posted in the permitting division.

Notable Projects

- Stream stabilization and habitat enhancement programs along the south fork of Lakota Creek
- Stream stabilization and habitat enhancement along the east fork of Lakota Creek.

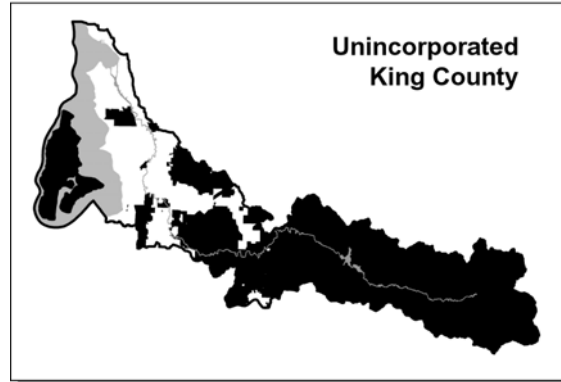
Unincorporated King County

Efforts to Recover Salmon Habitat

Population: 130,000 (2001 rough est.)

Chartered: 1853

Area: unavailable



Land Use and Riparian Conditions

Programs and Expertise: King County has reviewed its current policies, programs, and practices to determine their relationship to protection of salmon habitat. A large number of staff with special expertise (ecologists, fish biologists, earth scientists, hydrologists, and water quality specialists) work with developers, land owners, cities, and other agencies to ensure implementation of regulations and programs designed to protect salmon. In 2000, code changes were made to presume that certain types of streams are used by salmonids based on stream characteristics rather than solely salmon presence. A 24-hour hotline was also established to report clearing and grading complaints and related activities that affect salmon habitat.

King County is a partner with Auburn, Kent, Renton, and Tukwila in the Green River Basin Program. Established under Flood Control Zone District provisions, the primary purpose of the Basin Program is flood protection, but most projects and maintenance on the Green River revetments include riparian and in-stream habitat improvements such as levee setbacks, plantings, and large woody debris.

Buffers and Habitat: Buffers or setbacks are required on all streams and nearshore areas.

Stream and Shoreline Classification	Buffer Width
Class 1 or Class 2 with salmonids (or presumed salmon use)	100 feet with additional 15-foot building setback line
Class 2 without salmonids	50 feet with building setback
Class 3	25 feet with building setback
Shoreline – Conservancy	50 feet
Shoreline – Rural	20 feet

Since 1995, King County has acquired 670 acres in the Middle Green subwatershed through the Waterways 2000 program. Most of these acquisitions have focused on riparian areas and

several have since included habitat enhancement and restoration. Since 1998, over 300 additional acres have been acquired through other funding sources.

Stormwater and Water Quality

Construction Regulation: King County requires erosion and sediment control on all construction projects. A dedicated erosion and sediment control inspector enforces construction requirements and can issue violation notices or post stop work orders. Education is offered for staff and contractors on erosion and sediment control practices and onsite private inspectors are required for some developments as a State Environmental Policy Act condition.

Water Quality Controls: King County has a spill response program implemented through local fire districts and the King County Department of Transportation. In 1999, King County implemented a cross-departmental Integrated Pest Management Program that resulted in seven departments phasing out use of 17 different chemicals such as herbicides and pesticides. The county has a program to promote implementation of best management practices for both livestock and ditch maintenance practices. A livestock ordinance, including the development of farm plans on individual farms, helps protect water quality. The county is involved in several regional water quality projects, including a combined sewer overflow control program and the Green Water Quality Assessment. Water quality data are routinely collected at approximately 20 sites; parameters assessed include temperature, dissolved oxygen, suspended solids, turbidity, nutrients, bacteria, and metals. Water quality complaints are investigated and referrals given; information on control of pollutants is available to businesses and residents.

Stormwater Regulations: King County updated its Surface Water Design Manual in 1998 to address stormwater management for new development. Several cities in the Green/Duwamish watershed have also adopted this manual. Level 2 flow control requirements are applied in much of the Middle Green River subwatershed and portions of the Lower Green. Level 1 flow control is required in most of the Newaukum Creek subbasin. King County is working to develop low-impact development alternatives to reduce generation of stormwater runoff.

Maintenance: King County is responsible for maintaining public stormwater facilities, including many residential facilities; private owners are responsible for maintaining commercial and multi-family facilities and those managed by homeowners' associations. Inspections are done annually; maintenance occurs as needed, based on inspections.

Monitoring

King County runs a number of programs to monitor the condition of aquatic resources. In addition to the Green Water Quality Assessment, the county monitors stream flow, routine water quality, small lakes, and aquatic insect populations at various locations in WRIA 9. In

2001, the county initiated several monitoring efforts, including: 1) seining in the Lower Green River to quantify juvenile salmonid outmigration, 2) a bull trout investigation in the Middle Green, and 3) nearshore seining for species composition and timing (supported by King Conservation District funds). King County also does monitoring of capital improvement projects, as well as bank restoration and maintenance projects along the Lower and Middle Green River.

Stewardship

King County sponsors classes and workshops in stewardship of land, water, and forest resources. The county helps organize and participates in a wide variety of volunteer planting and restoration activities, primarily in unincorporated King County. The county regularly sponsors volunteer riparian restoration in park lands adjacent to the Green River. Since 1998, volunteers have planted over 6,000 trees and shrubs in publicly owned riparian zones throughout the basin. The county has three watershed stewards in WRIA 9 in the Middle Green River subwatershed, Newaukum Creek basin, and Vashon/Maury Island. The county is a primary promoter of the grasscycling and mulching mower sales promotion, which is carried out in cooperation with various cities in the WRIA.

Nearshore Activities

Setbacks of 50 feet (conservancy) and 20 feet (rural) are required from shorelines and 50 feet or more, depending on bluff height, from bluffs (i.e., top-of-slope). King County offers assistance and guidance for management of stormwater in bluff areas. Docks, piers, bulkhead, and riprap are regulated, and assistance is offered to minimize shoreline erosion.

Features Particular to County

King County has a biosolids management program that involves application of biosolids to improve soils and enhance the growth of forests and agricultural crops. Soils for Salmon, a new program, concentrates on building healthy soils in both new and existing developments. Saving and reusing topsoil and amending soils with compost will reduce the need to water, add fertilizer, and apply pesticides and fertilizers, which in turn will improve water quality.

Notable Projects (1998-2001)

- King County preservation and enhancement projects: Big Spring Creek (79 acres), Metzler (74 acres) and Kanaskat North (75 acres) acquisitions with grant support from the Salmon Recovery Funding Board; Porter Levee and Hatchery Park restoration projects (revegetation and volunteer planting events)
- King County Capital Improvement Projects and Small Habitat Projects – 11 projects completed from 1998–2001: Examples include O’Grady Park stream

connection, Hamm Creek Estuary Channel Realignment project, revegetation/planting at Soos Creek enhancement (Lundberg – RM 2.3), Neeley small habitat project

- Green River Basin Program projects (King County, Auburn, Kent, Renton, and Tukwila) – 12 projects completed from 1998–2001 including revetment repairs, levee setbacks, habitat enhancement, and acquisitions: Examples include Russell Road lower and upper revetment projects (RM 19-20), Christian Brothers (RM 17.1), Boeing setback levee (4000 feet from RM 17.2-18.0), and Mullen Slough Nursery acquisition (14 acres) at mouth of Green River (restoration planned for 2002).