



Rural Drainage Program

2005 Accountability Report to the King County Council

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SUMMARY AND OVERVIEW

The Metropolitan King County Council launched the Rural Drainage Program (RDP) in late 1999 by extending the surface water management fee to eastern King County and Vashon Island (Ordinance 13695). The program manages stormwater runoff in order to protect public safety, property, and prevent degradation to the natural environment. In leading to that decision the Executive made several commitments to both the Council and the affected communities regarding staff performance, the provision of service, and the use of funds. This document is intended as a status report on these commitments and the general progress of the extended service areas known as the Rural Drainage Program.

PROGRAM COMMITMENTS

Many of the commitments made by the Executive to the County Council and the public were first stated in the original proposal document for the Rural Drainage Program, while others were made during the County Council's review of the proposal. Specifically, these commitments are as follows:

Spending Fees Where Collected – The program committed that over time, expenditures on surface water services will roughly equal the revenue collected in the same given area. The program divides the service areas into three subsections—the Snoqualmie Valley, Enumclaw Plateau, and Vashon Island—and tracks revenues and expenditures for these areas to ensure one is not subsidizing another. See the section titled “Geographic Equity and Productivity” to examine this issue in detail.

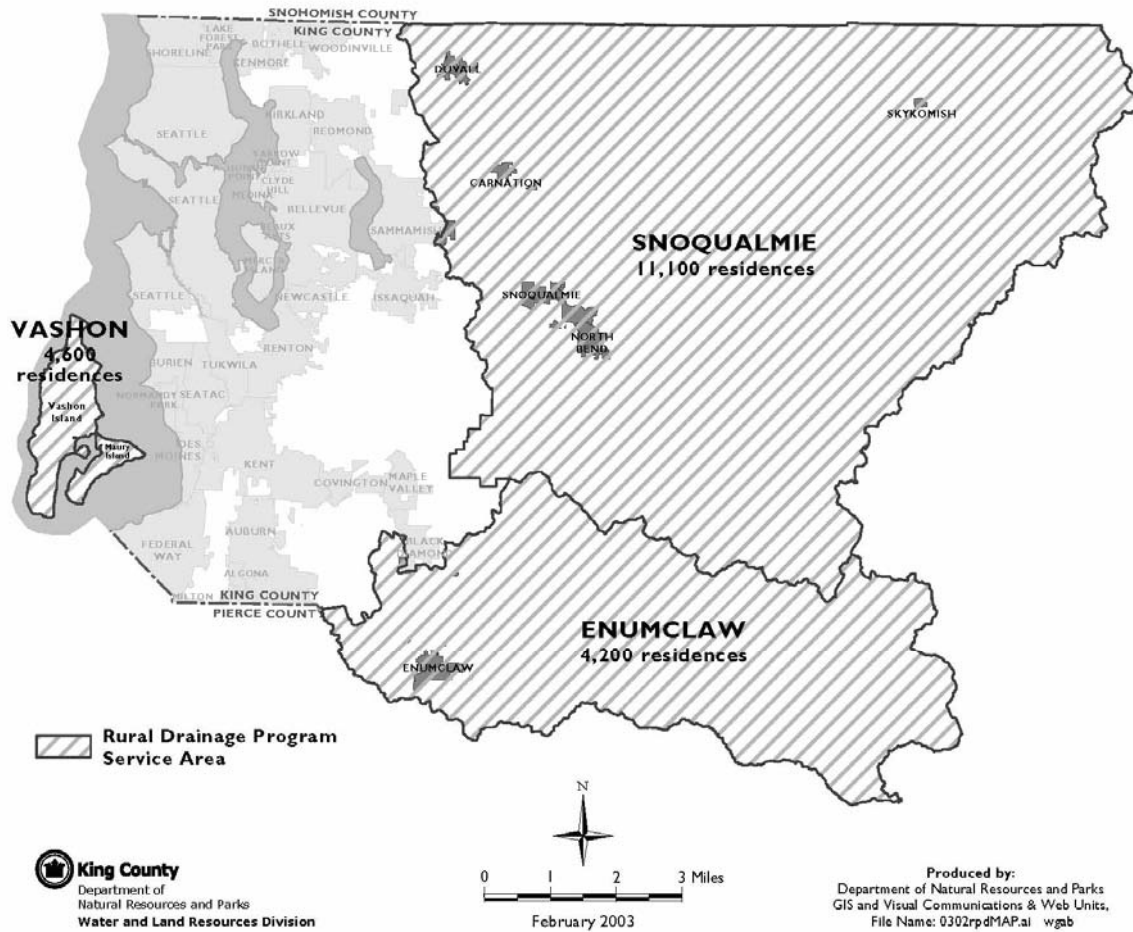
Customized Service – The Executive committed that the services provided to rural communities would respond to specific needs and be tailored for the different areas. In response, the program provided increased groundwater monitoring on Vashon Island and non-permit related code enforcement in the Snoqualmie Valley. The program supports Enumclaw Plateau farmers in draining their fields through the Agricultural Drainage Assistance program (ADAP or “Fish and Ditch”) and helps livestock owners comply with the Livestock Management Ordinance through a cost-sharing program. While these services are not exclusive to these areas, they were initially proposed in response to requests from these communities. The different concentrations of services can be reviewed in the service summaries beginning on page 9, and in the detailed listings on page 40.

Limits on Staff – During the fee adoption process, the Council limited the number of staff working on the program, preferring a greater use of consultants. For the first two years, the program strictly adhered to a limit of 7.3 new full time employees, as well as 5.8 positions previously funded by the current expense fund, the river improvement fund, or the Arts and Natural Resources Initiative Bond. Council decisions to fund farm and forest programs in 2002 changed this significantly by raising the total number of staff funded by the program. Consequently, the program no longer considers this commitment to be in effect.

Maintain Rural Character – During the fee adoption process, the Council also expressed concern that drainage solutions not lead to constructing infrastructure that could incrementally unravel the character and promote development in the rural area. To date, all capital construction projects have made extensive use of natural systems and materials such as rock and woody debris, to shore banks and reroute drainage. Manufactured construction materials such as concrete, metal, or plastic pipe have been used only to make minor adjustments to

natural systems, or in situations where existing manufactured materials need to be replaced, such as the Drainage District 13 emergency pipe replacement in 2001.

RURAL DRAINAGE PROGRAM SERVICE AREAS



GEOGRAPHIC EQUITY AND PRODUCTIVITY

In proposing the Rural Drainage Program, the Executive committed the program to maintaining geographic equity in its expenditures. The program has defined this as meaning that revenue from one area would not be used to subsidize services in another. The program tracks expenditures and revenues for the three distinct sub-areas of the RDP—the Snoqualmie Valley, Enumclaw Plateau, and Vashon-Maury Islands.

The status of this commitment, as well as the program's productivity, can be understood by reviewing the following three graphs. The first graph (Revenue and Expenditure: 2000-2004) shows the cumulative distribution of revenue and expenditures among the three areas since the program's inception. The graph shows that expenditures in Snoqualmie and Enumclaw approximately equal the revenues generated in those areas, but that Vashon expenditures are only about 85% of collected revenue. This means that Vashon has paid more in RDP fees than it has received in services.

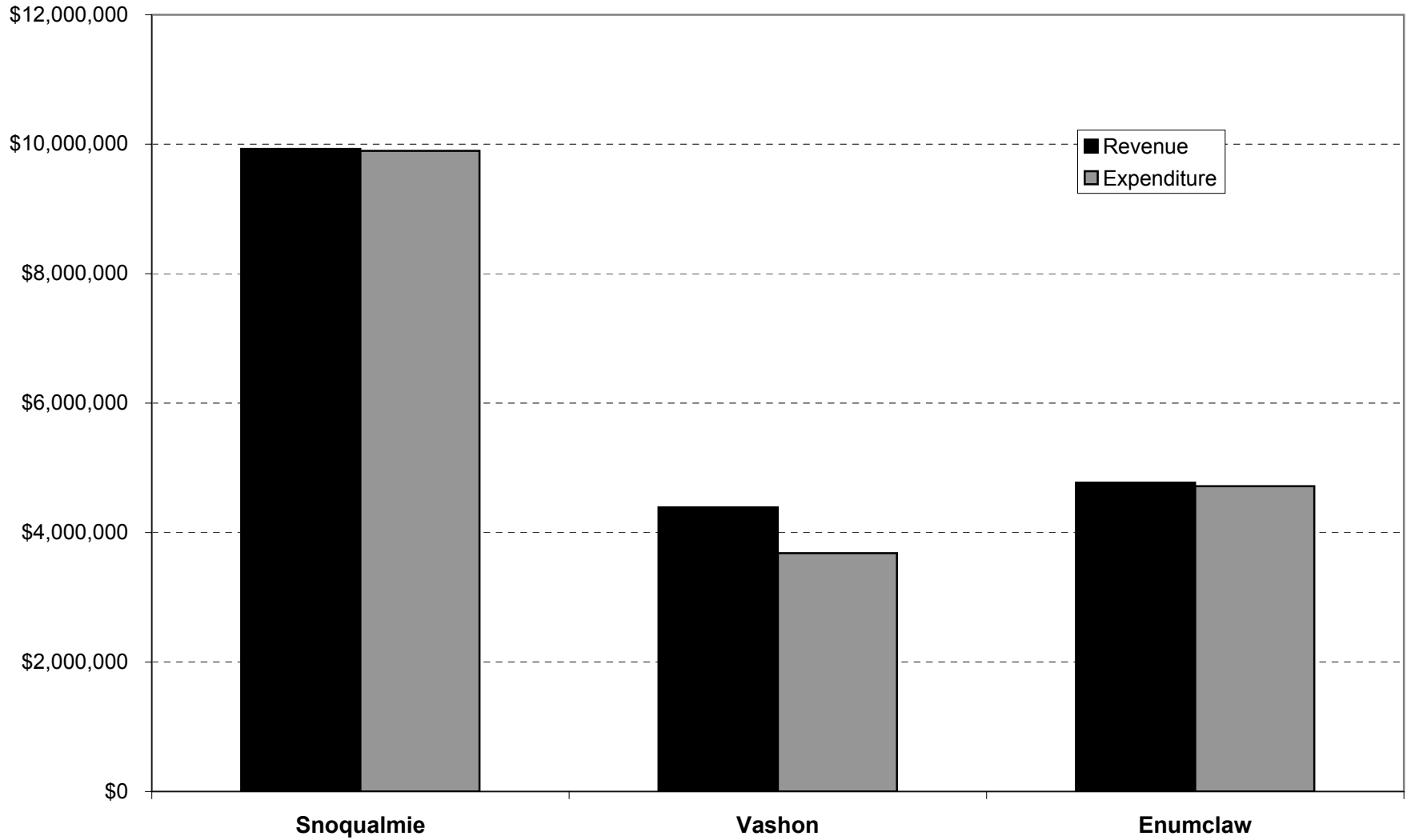
The Second graph (Unspent Revenue Projection) is a measure of program achievement over time, both toward geographic equity and productivity. The graph shows the unspent revenue in each geographic area for the years 2000-2004, then forecasts the likely expenditures King County will make to achieve equity in future years.

This graph shows that the highest peaks in unspent revenue were seen for the Snoqualmie Valley and Vashon Island in 2002. While the Snoqualmie peak is higher, the Vashon peak is highest relative to the amount of revenue it generates. (Snoqualmie generates twice Vashon's revenue, so the Snoqualmie peak should be twice as high as Vashon's for it to be as severe.) The graph also shows progress towards reducing unspent revenue in 2003 and 2004, most dramatically in Snoqualmie and Enumclaw, but also on Vashon as well. These steep downward lines indicate that the program has become more productive, and by maintaining its spending goals will have eliminated any reasonable inequity between revenues and expenditures by the end of 2006.

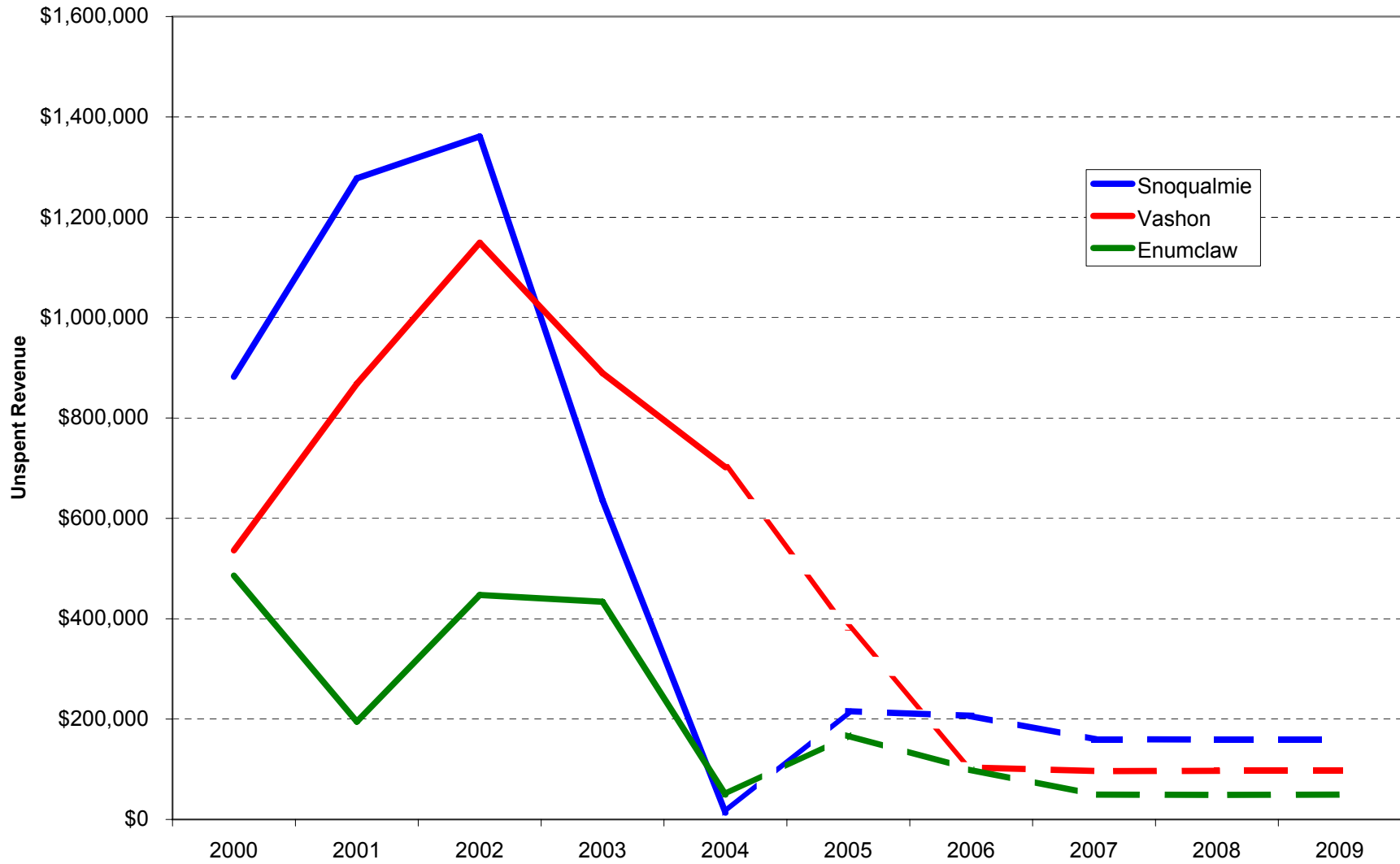
Most of the unspent revenue is found in the capital portion of the program. During its initial years, the program had not adequately identified capital budget needs. Once identified, many projects were over-budgeted and proceeded more slowly than anticipated. Capital program managers have largely resolved these problems resulting in the large expenditures in Snoqualmie and Enumclaw in 2004.

In summary, we can conclude from the data that the Rural Drainage Program is largely meeting the Executive's commitment to geographic equity, but still has work to do on Vashon. Most importantly, no area has received a greater level of expenditures for services than it has generated in revenue, meaning that no area is subsidizing another. There is some lag of expenditures for Vashon, but this is only about 15% of revenue generated and should be eliminated by the end of 2006. Finally, spending targets have been set for each area to guide the program towards a greater level of equity and productivity in future years.

Revenue and Expenditure: 2000 - 2004



Unspent Revenue Projection



SERVICE SUMMARIES BY GEOGRAPHIC AREA

The following pages provide a summary of the services and expenditures provided in each of the three geographic areas (Snoqualmie Valley, Vashon Island, and the Enumclaw Plateau) in the form of three graphs with corresponding explanations. This section is intended to help readers identify which services are most important to their region.

When reading the graphs it is important to bear in mind the following. First, the categories were created by combining one or more programs or projects from the detailed listings on page 40 into a meaningful group. In some cases, a program or project could have been placed in multiple categories. For instance the Agricultural Drainage Assistance Program was placed in “Drainage Projects”, but it could also have been placed in “Support for Agriculture.” Consequently these graphs are not meant to substitute for the detailed listing, but simply provide an additional vantage point for the reader to understand program accomplishments.

Second, the categories are not uniform between areas. While many are the same, some categories were tailored to be most meaningful to residents of a specific area. For instance, Vashon Island has an entire category for “Groundwater Protection” because of the magnitude of groundwater expenditures and its importance to the Island. However, the much smaller groundwater expenditures in the Snoqualmie Valley were included in the category “Stewardship and Monitoring.” Likewise, Snoqualmie and Enumclaw have a separate category for “Drainage Projects” while Vashon’s smaller drainage expenditures were combined with “Drainage Projects and Stormwater Facility Management.”

The items below correspond directly to the bars on each graph, and provide additional definition of the service.

Snoqualmie Valley

- \$2,377,892 solving drainage problems to protect public safety and property.
- \$1,565,024 conserving and enhancing wetlands, stream corridors and shorelines, as well as complying with Endangered Species Act mandates to protect salmon.
- \$1,103,192 enforcing environmental regulations to protect water quality and minimize excess stormwater runoff.
- \$1,025,919 responding to drainage complaints and maintaining stormwater facilities.
- \$1,006,045 providing stewardship, monitoring, technical assistance and outreach to protect the valley's natural resources.
- \$850,457 preserving and supporting sustainable agriculture and forestry to improve water quality and prevent erosion.
- \$708,283 identifying and evaluating drainage and aquatic resource protection projects.
- \$447,856 for King County overhead outside the Department of Natural Resources and Parks.
- \$430,208 managing King County owned resource lands in the Snoqualmie Valley.
- \$382,814 for program administration, implementation, and financial tracking within the Water and Land Resources Division.

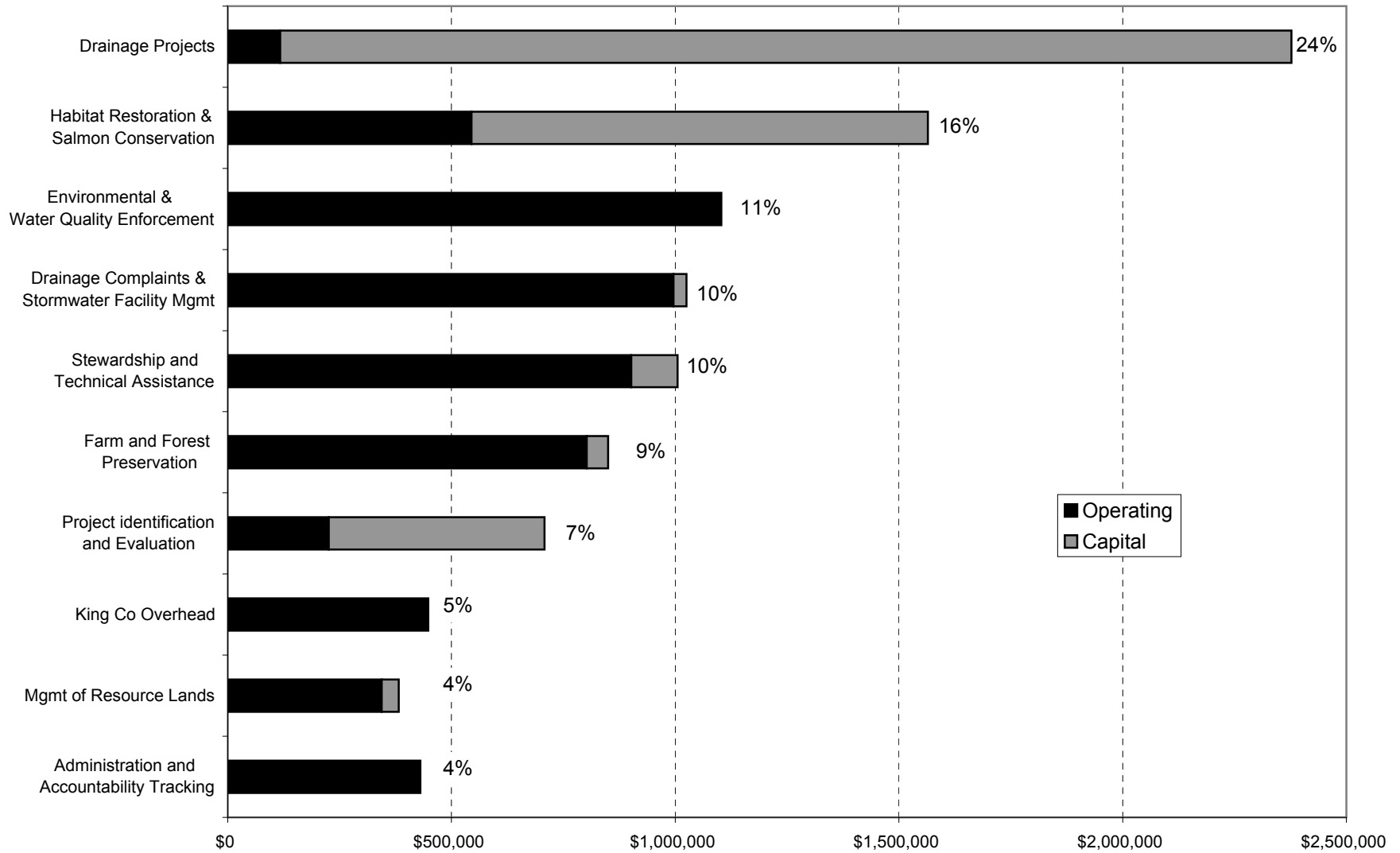
Vashon Island

- \$889,466 conserving and enhancing wetlands, stream corridors and shorelines, as well as complying with Endangered Species Act mandates to protect salmon.
- \$645,987 protecting groundwater through monitoring, education, and working with the Vashon Groundwater Protection Committee to develop policy and programs.
- \$441,635 providing stewardship, monitoring, technical assistance and outreach to protect the valley's natural resources.
- \$364,700 identifying and evaluating drainage and aquatic resource protection projects.
- \$335,320 preserving and supporting sustainable forestry and agriculture to improve water quality and prevent erosion.
- \$334,095 responding to drainage complaints and maintaining stormwater facilities.
- \$274,105 enforcing environmental regulations to protect water quality and minimize excess stormwater runoff.
- \$198,826 for King County overhead outside the Department of Natural Resources and Parks.
- \$197,848 for program administration, implementation, and financial tracking within Water and Land Resources Division.

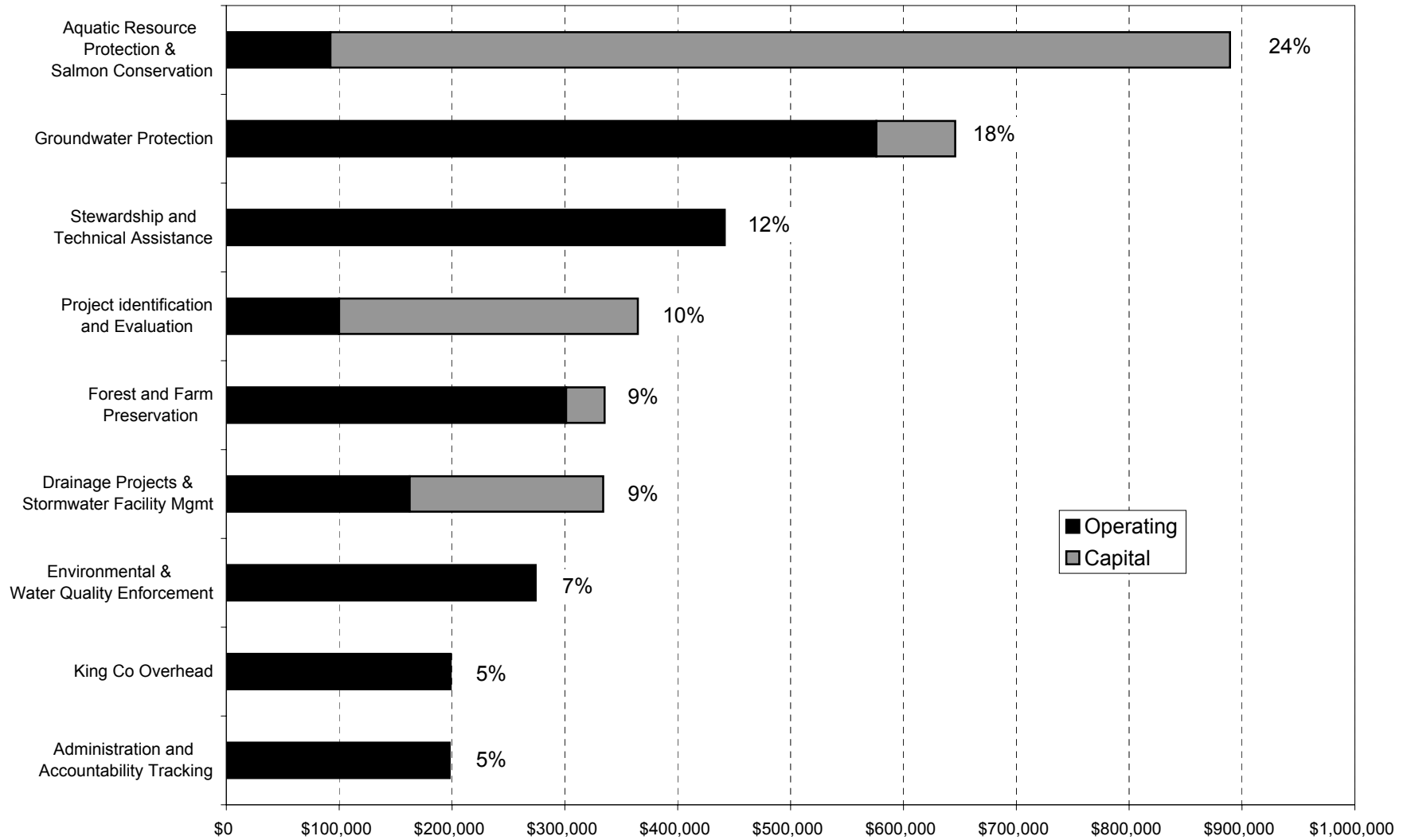
Enumclaw Plateau

- \$1,136,208 solving drainage problems to protect public safety and property.
- \$638,199 enforcing environmental regulations to protect water quality and minimize excess stormwater runoff.
- \$609,937 providing stewardship, monitoring, technical assistance and outreach to protect the plateau's natural resources.
- \$539,302 conserving and enhancing wetlands, stream corridors, as well as complying with Endangered Species Act mandates to protect salmon.
- \$470,436 preserving and supporting sustainable agriculture and forestry to improve water quality and prevent erosion.
- \$420,983 identifying and evaluating drainage and aquatic resource protection projects.
- \$258,845 managing King County owned resource lands on the Enumclaw Plateau.
- \$216,523 for King County overhead outside the Department of Natural Resources and Parks.
- \$213,844 for program administration, implementation, and financial tracking within Water and Land Resources Division.
- \$211,296 responding to drainage complaints and maintaining stormwater facilities.

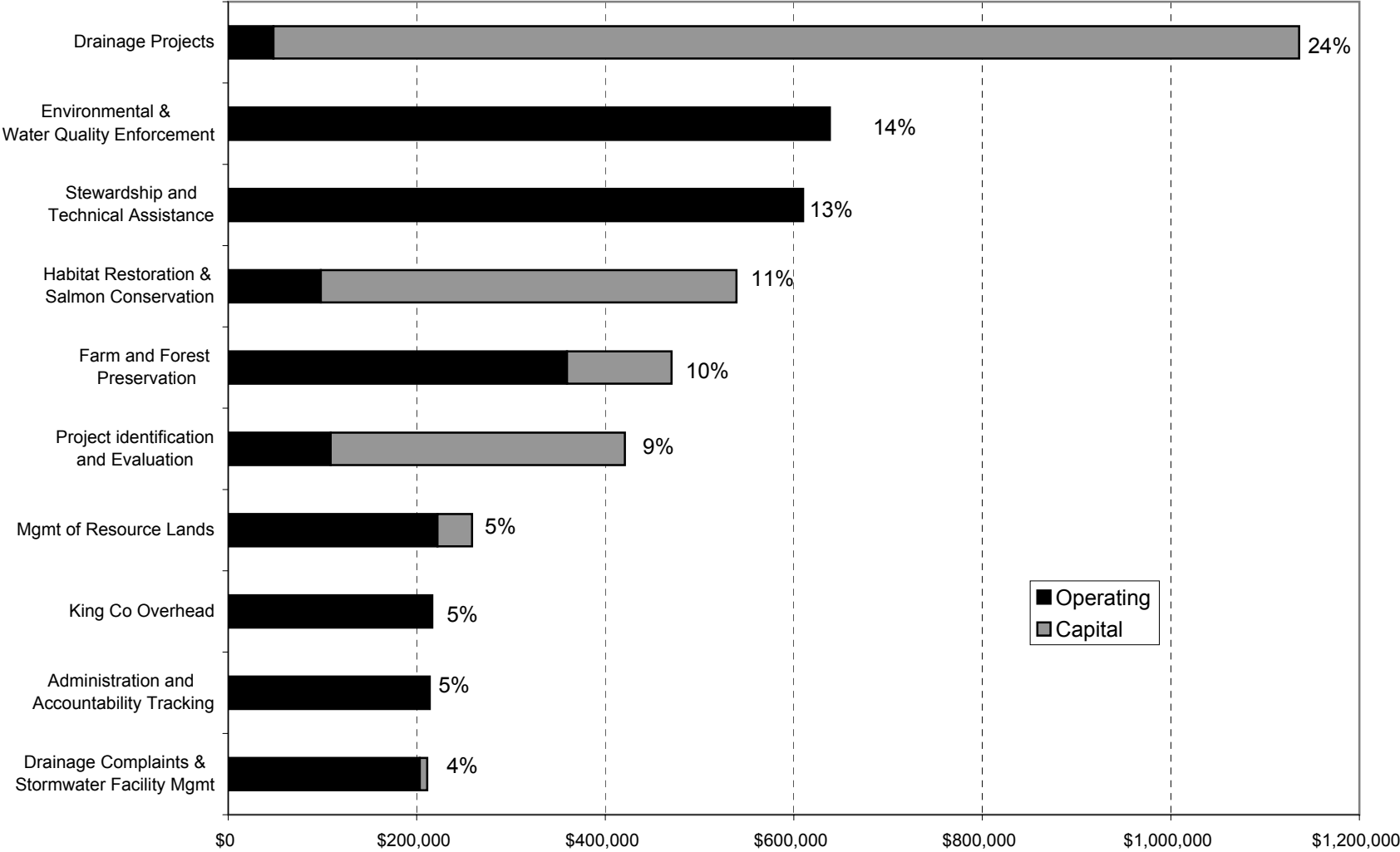
Snoqualmie Service Summary (2000-2004)



Vashon Service Summary (2000-2004)



Enumclaw Service Summary (2000-2004)



OPERATING PROGRAM ACCOMPLISHMENTS

The Rural Drainage Program provides many ongoing services to rural residents to resolve drainage complaints and protect the natural environment. These services include drainage and water quality complaint investigation, maintenance of stormwater control facilities, groundwater monitoring, programs to retain farms and forestland, and enforcement of clearing and grading violations.

In many cases, these programs are only partially funded by surface water management fees. Often, many different funding sources are combined to support these activities. Some of these programs, activities and services are specific to a given area or natural resource. Basin steward activities for example are unique to each of the three Rural Drainage Program sub area (Snoqualmie, Enumclaw Plateau and Vashon Island.) The Lake Stewardship Program provides education, monitoring and technical assistance around King County's small lakes.

The following paragraphs describe each of these services, providing a detailed accounting of accomplishments in each area.

DRAINAGE SERVICES

During 2004, the division received 48 drainage complaints from rural citizens and businesses, slightly fewer than last year. Three quarters of these were resolved over the phone or referred to other County agencies for assistance. The remainder (12) underwent extensive review by stormwater engineers and many were resolved by offering technical advice. This year two complaints identified violations of King County's Drainage Code requiring that the County take enforcement action, and two others were forwarded for consideration as capital projects under the Neighborhood Drainage Assistance Program or the Drainage and Habitat Improvement Program.

Division staff completed 120 annual visits to County-owned, residential flow control facilities (stormwater ponds) to inspect them, mow grass and make any necessary repairs. They also inspected 81 privately owned stormwater facilities serving rural businesses and multi-family, residential buildings to ensure they were functioning within appropriate standards.

The water quality program investigated 10 complaints in 2004. Valid complaints were resolved by instructing property owners on ways to adjust disposal practices and comply with King County's Water Quality Code. Four complaints were considered significant enough to warrant more extensive, water quality review by engineering staff. These complaints usually concerned pesticide/herbicide applications and animal waste in streams, oily runoff, or use of oil to suppress dust. In addition, staff completed 32 water quality audits for rural businesses to catalogue all best management practices necessary for compliance with King County's Water Quality Code.

CODE ENFORCEMENT & 24 X 7 EMERGENCY ENFORCEMENT COMPLAINT TELEPHONE LINE

The Rural Drainage Program partially funds two code compliance officers at the Department of Development and Environmental Services (DDES) to provide enforcement of clearing and grading and sensitive areas regulations in rural King County. During 2004, DDES inspectors responded to 147 new clearing and grading complaints in eastern King County and Vashon Island. Many of these resulted in stop-work orders for permit violations. Some resulted in

mitigation and compliance actions to replant cleared areas, restore damaged wetlands, or make other environmental repairs.

The Rural Drainage Program also funds the 24-hour complaint line, so that violations can be reported after business hours and on weekends.

2004, code violations break down to:

- Snoqualmie Valley 98 complaints
- Vashon Island 20 complaints
- Enumclaw Plateau 29 complaints

SNOQUALMIE BASIN STEWARD

The Snoqualmie Basin Steward responds to citizen inquiries, coordinates efforts among diverse public agencies, facilitates watershed improvement projects, provides assistance to monitoring programs, and provides public education and volunteer opportunities within the Snoqualmie watershed. These efforts aim to improve the environmental condition of the watershed.

2004 accomplishments for the Snoqualmie Basin Steward include:

1. Obtained \$1,761,000 in external funding to support key Snoqualmie Watershed capital projects:

- \$700,000 in Salmon Recovery Funding for the Lower Tolt Floodplain Reconnection Project.
- \$116,000 in Salmon Recovery Funding for the Raging River Preston Reach Levee Removal Project.
- \$70,000 in NOAA Fisheries Community Based Restoration Program funding for the Raging River Preston Reach Levee Removal Project.
- \$30,000 in King Conservation District funding for the NE 52nd Place Culvert Removal (Patterson Creek).
- Approximately \$445,000 in Conservation Futures Tax funding (depending on final council action of CFT) for projects in the Tolt River, Griffin Creek, and Middle Fork Snoqualmie River watersheds. (Another \$400,000 was recommended for Raging River through a different program.)
- \$400,000 in Roads Maintenance funding to support the Stossel Creek project.

2. Coordinated 5 volunteer planting events involving 225 volunteers who planted 3000 native plants along the Snoqualmie River and the Middle Fork of the Snoqualmie River. Planting sites were Chinook Bend Natural Area (two events), a private farm along the Snoqualmie River, and Three Forks Park (two events).

3. Completed the Rapid Rural Reconnaissance for Patterson Creek, which resulted in a prioritized list of capital projects and acquisitions. The study provided direction to Water and Land Resources Division's capital projects section, CPOSA, which was able to complete one of the projects during summer 2004 (SE 40th place culvert replacement). Another of the Water and Land Resources Division's capital programs, the Small Habitat Restoration Program (SHRP), has started work on two of the priority riparian plantings (Storybook Creek and Members Club at Aldarra).
4. Provided support to the SHRP program in implementing six projects in the Snoqualmie watershed in 2004. Two projects were on county property. Four projects were on private property. The projects resulted in the revegetation of 13 acres of riparian habitat.
5. Coordinated work on the Lower Tolt Floodplain Reconnection Project and the Raging River Preston Reach Restoration Project, two high-priority salmon recovery projects. Both projects are in the design stage. The basin steward is making sure the design process maintains its original project goals and helping the design team interface with stakeholders and the general public.

SNOQUALMIE TECHNICAL ASSESSMENT

The Snoqualmie Technical Assessment provides scientific analysis and assessment of ecological conditions in the Snoqualmie River Valley. It supports the other programs and activities underway in this basin including the Watershed Resource Inventory Area (WRIA) process for recovering listed salmon species.

- Co-authored and edited "Snohomish River Basin Ecological Analysis for Salmonid Conservation" (EASC) which provided a technical foundation for the Snohomish Basin Salmonid Conservation Plan. The EASC integrated existing and ongoing inventories into one document; updated the near-term chinook salmon conservation strategy to incorporate new data, included other salmonid species, and provided long-term, basin-wide guidance; and developed and tested salmon recovery strategies.
- Wrote the "Snoqualmie Watershed Stream Habitat Reconnaissance Report," which summarizes and interprets information collected in the field about habitat conditions for and presence/relative distribution of multiple species of salmonids and other aquatic biota in 14 rivers and streams in the Snoqualmie Watershed. The field study was conducted to provide baseline information that will be used by King County staff to guide aquatic resources management decisions in the watershed, to evaluate potential opportunities for habitat protection and restoration actions, and to develop adaptive management and monitoring when these actions are implemented.
- Managed the Snoqualmie Watershed Geology Study and provided oversight in the preparation of the report "An Overview of the Geology and Geomorphology of the Snoqualmie River Watershed." The purpose of the study was to characterize the geologic history and active geomorphic processes in the Snoqualmie River Valley, with emphasis on how this information relates to land use and aquatic habitat issues there. The information will guide King County aquatic habitat protection and restoration decisions for the Snoqualmie Watershed.
- Scoped, planned, and managed a water quality monitoring project at a total of six sampling locations in four tributaries to the Snoqualmie River, upstream of where these tributaries

flow into the Agricultural Production District. The purpose of this project is to provide information on the effects of rural residential land uses on water quality. The information will be used by the King County Water and Land Resources Division Agricultural Program to better direct their technical assistance and cost-share programs.

- Developed a biologically-based approach for the Snoqualmie Team to use in prioritizing stream reaches for fish habitat protection and restoration.
- Provided project oversight and technical assistance for development of a Hydrologic Simulation Program-Fortran model for the Snoqualmie. Product originally expected by end of 2004, however is delayed due to other Department priorities for in-house staff.
- Evaluated Snoqualmie Basin and King County-wide catchments for biological value and land use constraints. Project entailed updating and refining catchment (sub-basin) maps, and using existing or developing new Geographic Information Systems-based information on wetlands, salmonids, wildlife habitats, total impervious area, vegetative cover, roads, and marine shorelines. In 2004, this information has was used to guide Critical Areas Ordinance (CAO) decisions. In 2005, it is anticipated that this information will continue to be refined and used in developing CAO-optional Rural Residential Stewardship plans and to further develop of basin and county-wide goals for aquatic and terrestrial species and habitats.
- Provided review and comment on Snoqualmie technical reports.

SNOQUALMIE GROUNDWATER PROTECTION

The East King County Groundwater Protection Program seeks to protect groundwater resources by monitoring and assessing the interactions between surface and groundwater in these areas. In 2003 the program accomplished the following:

- Groundwater sampling and analysis from ambient monitoring locations.
- Facilitation and administration of East King County Groundwater Protection Committee.
- Developed draft “Groundwater Plan Update Report.”
- Committee review and input on draft Critical Aquifer Recharge Area Ordinance and map.
- Development of interactive groundwater webpage.
- Sent out summary data from four years of collection to all well owners (all six rounds of data included).

ENUMCLAW BASIN STEWARD

The Enumclaw Basin Steward responds to citizen inquires, coordinates efforts among diverse public agencies, facilitates watershed improvement projects, provides assistance to monitoring programs, and provides public education and volunteer opportunities within the Middle Green and White River basins that drain the Enumclaw Plateau. These efforts aim to improve the environmental condition of the watershed.

2004 accomplishments for the Enumclaw Basin Steward include:

- Awarded \$788,000 by the Salmon Recovery Funding Board to restore the lower 1800 feet of Newaukum Creek to improve habitat for salmon. The project will be designed and constructed over the next several years to restore channel, floodplain, and riparian conditions.
- Awarded \$160,000 by the Salmon Recovery Funding Board restore the lower reach of Boise Creek, below Mud Mountain Road. The project would lead to the restoration of the historic channel gradient and create valuable salmonid habitat. The current channel provides marginal habitat since it is constrained by the old grades of a railroad and the old Enumclaw-Buckley highway. This project will complete final design and permitting.
- Awarded \$225,000 from a Conservation Futures Grant to acquire lakefront property in the Bass – Beaver Lake Complex.
- Awarded \$200,000 from a Conservation Futures Grant to acquire property in fee simple or conservation easements along Newaukum Creek close to Mahler Park.
- Awarded \$150,000 from a Conservation Futures Grant to acquire a Conservation Easement along Boise Creek and to purchase development rights for the Farmland Preservation Program. This grant was written by the Enumclaw Watershed Steward and the staff person that administers the Farmland Preservation Program for King County's Agriculture Program.
- Purchased approximately two acres of aquatic habitat along Newaukum Creek across from the Magnuson Conservation Easement owned by the City of Enumclaw.
- Provided support to a King County acquisition agent to purchase approximately 60 acres in conservation easements and fee simple acquisition along Newaukum and Big Spring Creeks. Money for these acquisitions had already been secured through past grants.
- Initiated, scoped, and supervised a project to identify potential restoration opportunities along the Green River between Whitney Bridge and Flaming Geyser State Park.
- Planted 1000 native conifer and deciduous trees within the Whitney Bridge Natural Area.
- Planted 2,000 bare root red alder, 100 pacific ninebark, 100 twinberry, 200 red twig dogwood, 100 nootka rose, 100 Oregon ash, 100 red elderberry, 200 snowberry, 100 black cottonwood stakes, 200 sitka willow stakes, 200 Pacific willow stakes and 20 scoulers willow within some test plots along Newaukum Creek near Mahler Park on property owned by the City of Enumclaw.
- Planted 700 native trees and shrubs along Newaukum Creek on two private parcels. These plantings were supervised by an ecologist with King County's Small Habitat Restoration Program.
- Strategically placed 180 pieces of large woody debris (8 to 40" in diameter) in Newaukum Creek on the City of Enumclaw's LDS property near Mahler Park.
- Planted 300 native tree and shrubs along Boise Creek within the Enumclaw Golf Course in out-of-play areas. Invasive species, such as blackberry, had to be removed prior to planting. This project was supervised by an ecologist with King County's Small Habitat Restoration Program.

VASHON BASIN STEWARD

The Vashon Basin Steward responds to citizen inquiries, coordinates efforts among diverse public agencies, facilitates watershed improvement projects, provides assistance to monitoring programs, and provides public education opportunities for Vashon-Maury Island. 2003 accomplishments for the Vashon Basin Steward are as follows:

- In an effort to protect ¼ mile of prime nearshore habitat within the Maury Island Aquatic Preserve, was awarded a \$400,000 grant from the Salmon Recovery Funding Board to acquire five parcels of land integral to the eroding bluffs forming the start zone of two important drift cells on Maury Island.
- Acquired 30.48 acres in three parcels for \$553,000 in the Judd Creek headwater wetland conservation area.
- Awarded \$200,000 in Conservation Futures Funds to help acquire the remaining three parcels in the Judd Creek headwaters wetland conservation area.
- Accomplished predesign work on one low impact development (LID) project at Ober Park and on one fish passage project at Mileta Creek.
- Performed three small habitat restoration projects on Vashon Island improving fish passage, remediating an eroding gully, planting native riparian plants, and removing non-native invasive weeds.
- In partnership with People for Puget Sound and the Vashon Maury Island Land Trust, funded six Earth Corps crew days to plant native plants at a nearshore restoration site and at two upland habitat restoration sites.
- Completed and published the Vashon-Maury Island Rapid Rural Reconnaissance Report which provides a general overview of existing stream and basin conditions and problems related to surface water. The report identifies priority capital improvement needs, property acquisitions, studies, and program needs on the Island. It also contains a discussion of nearshore habitat needs and a general discussion of groundwater.
- Awarded a contract resulting in a report titled “Ecological Economic Evaluation for Maury Island”. This report addresses the relationship between natural ecosystems and human economic systems by accounting for the natural environment as a form of natural capital and valuing the ecosystem goods and services delivered. Estimating the economic value of ecosystem goods and services is increasingly recognized as a necessary condition for environmental decision making, sustainable business practice, and land-use planning.
- The State Board of Natural Resources approved the transferred of 237 acres of School Trust Lands on Vashon and Maury Island to King County with \$3,835,500 appropriated by the State Legislature.

VASHON GROUNDWATER PROTECTION

The Vashon Groundwater Protection Program seeks to protect the island’s groundwater resources by monitoring and assessing the interactions between surface and groundwater. In 2003, the program accomplished the following:

- Groundwater sampling and analysis from ambient monitoring locations.
- Sent out summary data from four years of collection to all well owners (all seven rounds of data included).

- Designed and activated Vashon web page to track progress of Water Resources Evaluation (including increased stream and precipitation).
- Facilitated and administered of Vashon-Maury Island Groundwater Protection Committee.
- Developed draft Groundwater Plan Update Report.
- Completed new geologic and susceptibility to groundwater contamination mapping.
- Directed committee review and input on draft Critical Aquifer Recharge Area ordinance and map.
- Completed Phase 1 of an island-wide groundwater flow model as part of the Water Resources Evaluation project.

RURAL LAKES STEWARDSHIP

The Rural Lake Stewardship Program monitors the water quality of small lakes within the RDP service area in order to assess the real and potential impacts from developments over time. The program assists and encourages citizens to act as stewards of their lakes and watersheds through education, volunteer opportunities, and technical assistance. Program reports, recommendations, and management plans are based on the best available scientific information related to water quality and ecosystem integrity of small lakes in western King County. Activities in 2004 included:

- Coordinated volunteer monitoring data collection and assessed water quality information for nine rural lakes: Alice, Ames, Echo (Snoqualmie), Horseshoe, Joy, Langlois, Marcel, Margaret, and Walker.
- Trained volunteer monitors in techniques for collecting water samples and assessing water quality and quantity, to gather data for long term assessment of environmental parameters.
- Hosted a Natural Yard Care workshop for lake residents to promote healthy gardening practices along shorelines.
- Conducted an Open House on recognizing aquatic plants identified as noxious weeds to increase awareness among shoreline dwellers and lake users to the issues and threats posed by invasive aquatic plants.
- Conducted a workshop to provide information and suggestions on lake group formation and Lake Management District formation for volunteer monitors and lakeshore residents.
- Provided technical assistance to more than 160 lakeside residents, agencies and companies dealing with a variety of questions concerning water quality, shoreline and habitat, as well as permitting, regulations, local jurisdictional concerns, and other issues.
- Published and mailed the national award-winning quarterly “Lakeside Steward Newsletter” to lakeside residents in rural King County to provide technical information, education on environmental topics related to lakes, share current monitoring results for the year, and promote lake stewardship ethics.
- Completed and distributed a poster entitled “50 Ways to Love Your Lake” that details ways residents and communities can work towards maintaining good water quality and increasing community awareness of healthy environmental practices.
- Produced and distributed “Ask me about my lake” booster pins for volunteers to hand out to their communities to raise awareness about lake issues.

- Analyzed collected water quality data, and laid out the 2003 Annual Volunteer Monitoring Report, which contains background information and data analysis from all lakes monitored jointly by King County staff and volunteers.
- Updated old information on status and accessibility of county lakes which was contained in the Lake Stewardship Program website.

FOREST CONSERVATION

King County's Forestry Program focuses on the retention of forestland for its environmental, social, and economic benefits. The program provides education, technical assistance, and economic incentives aimed at retaining the forest resources of King County. The following bullets summarize program accomplishments for 2004:

Vashon

- Assisted with teaching eight-week Forest Stewardship Class on Vashon Island - total of 24 students owning a total of 153 forested acres. This included forestry site visit to each parcel.
- Assisted additional 20 landowners owning 168 acres on Vashon Island with forestry-related issues related to purchasing and managing forestland, forest stand management, forest management cooperative, and reforestation.
- Vashon landowners submitted 18 Forest Stewardship Plans covering a total of 141 acres.
- Provided continued assistance to Vashon Forest Stewards, a not-for-profit forest landowner organization.

Carnation

- Assisted with teaching eight-week Forest Stewardship Class in north county (Carnation) - total of 38 students owning a total of 342 forested acres. This included forestry site visit to each parcel.
- Assisted additional 19 landowners owning 405 acres in Snoqualmie service area with forestry-related issues such as forest health questions, reforestation questions, forest practice permits, and conifer release.
- Snoqualmie landowners submitted 19 Forest Stewardship Plans covering a total of 297 acres.

Enumclaw

- Assisted with teaching eight-week Forest Stewardship Class in south County (Renton) - total of 36 students owning a total of 838 forested acres. This included forestry site visit to each parcel.
- Assisted additional twelve landowners owning 110 acres in Enumclaw service area with forestry-related issues such as forest health, reforestation, forest practice permits, and conifer release.
- Enumclaw landowners submitted 11 Forest Stewardship Plans covering a total of 105 acres.

AGRICULTURE PROGRAM

The Agriculture Program brings together the County's historic efforts to preserve prime agricultural soils (The Farmlands Preservation Program) with over a decade of efforts to make agriculture more environmentally friendly (the Livestock Management Ordinance), a program to assist agricultural landowners with drainage improvements on their land, and programs to encourage the activity of agriculture (Puget Sound Fresh and FarmLink). The King County Agriculture Commission was established in 1995 to advise the King County Council and Executive on ways to enhance and promote commercial agriculture in King County. Currently the Commission is working to implement the Natural Resources Initiative "Farm and Forest Study" which identified various barriers to the continuance of local agriculture as well as strategies to overcome those barriers. The Agriculture Program's primary responsibility is to implement those strategies.

The Agriculture Program also supports many of the environmental mandates of WLRD. Water quality is protected and improved by appropriate manure and pasture management. Miles of riparian habitat are improved and enhanced through the efforts of the Livestock Management Ordinance and the plantings associated with the Agricultural Drainage Assistance Program (ADAP). Farmers are also stepping forward and working with staff to provide voluntary actions that support fish recovery on their lands. Farming in King County also provides many environmental benefits such as providing flood storage in King County's agricultural floodplains, reduction of non-point source pollution from agricultural practices, aquifer and groundwater recharge, scenic open space, wildlife refugia, as well as having a safe and local food supply for King County residents.

In 2004 the program accomplished the following:

- Provided information and technical support on several agriculture issues. These include, but are not limited to, the Critical Areas Ordinance, updates to the Comprehensive Plan, and guidance on appropriate land uses in the Agricultural and Rural Zones.
- Provided information on the Agriculture Program, County-owned farmlands, and Farmland Preservation Program (FPP) issues. Examples include: policies to allow conservation easements on FPP properties; new deed restrictions to allow continued cost sharing on development rights acquisitions with the USDA-NRCS; commenting on the Carnation Wastewater Treatment Plan; and monitoring the Snohomish County wetland mitigation project to ensure that adverse impacts do not occur on neighboring FPP properties.
- Provided technical assistance on pasture management, manure management and the Livestock Management Ordinance to over 175 individual landowners.
- Worked with the Health Department on updated Solid Waste Handling Permit code changes as applicable to farms and horse operations.
- Participated in planning activities for manure processing produced by dairies on the Enumclaw Plateau. Technical information on dairy operations input into the Request for Proposal planning process, and assistance in defining the feasibility study was given.
- Participated in four workshops and classes on livestock management issues and regulations pertaining to livestock owners. Approximately 60 landowners attended.

- Assisted in planning five workshops for existing and new farmers on assessing their operations for alternative marketing ideas.
- Provided “on-the-ground” technical assistance regarding appropriate horticultural farming practices to 50 new and existing farmers.
- Assisted seven Farmland Preservation Program (FPP) property owners in performing boundary line adjustments while keeping their properties in compliance with Program covenants.
- Worked with the Washington Dept. of Transportation and the King County Dept. of Transportation to minimize road projects impacts on adjacent farmlands.
- Staffed the King County Agriculture Commission and its committees; helped the Commission develop recommendations on land use and other agricultural issues. These issues include the new Critical Areas Ordinance, updates to the comprehensive plan and related code changes and appropriate land uses in the Agricultural and Rural Zones.
- Helped organize and staff the Livestock and Rural Landowner Information Booth at the King County Fair. These booths provided information and assistance to more than 2,000 fairgoers.
- Helped organize and host the King County Small Farm Fair Expo at the Enumclaw Fairgrounds. Over 1000 rural landowners attended and received information on environmentally sound best management practices, resource conservation, livestock raising, native plants, farm economics, and the Critical Areas Ordinance.
- Helped organize and participated in the Harvest Festival.
- Developed award-winning brochure on King County Agriculture for use at fairs, festivals, and other events throughout the county.
- The Puget Sound Fresh Program provided marketing assistance to over 75 farms.
- Monitored preserved farmlands to ensure that the public’s investment in their preservation is upheld.
- Applied for and obtained CFT funding to purchase the development rights on the Enumclaw Plateau.
- Implemented a grant funding program to assist landowners with fencing and riparian plantings in WRIA 7, along the Snoqualmie Valley. To date five landowners plan to plant nearly three miles of buffer fencing.
- Coordinated with WRIA 7 to develop a fish recovery plan that will work for agriculture and fish: Identified and convened farmers willing to undertake voluntary fish recovery actions, and wrote grants related to fish recovery projects on private lands.
- Initiated two water quality studies for WRIA 7 and one for WRIA 8 to determine the geographic work priorities for the agricultural program.
- Crafted the agricultural strategies for the WRIA 8 and WRIA 9 draft plans, working with appropriate WRIA staff.
- Worked with landowners, the King County Agriculture Commission, the King Conservation District, and the King County’s Department of Development and Environmental Services to develop the farm planning option for the Critical Areas Ordinance, now looked at as a model for other counties and jurisdictions.

NATURAL RESOURCE LANDS PLANNING AND MANAGEMENT

The Natural Resource Lands (NRL) Program manages approximately 25 sites totaling 97,000 acres of ecological and working resource lands and conservation easements in the RDP coverage area.

Snoqualmie Valley

- Completed Site Management Guidelines (SMGs) for seven ecological sites and a Stewardship Plan for one forest site. These planning documents outline stewardship and maintenance needs of the site, and identify restoration and timber management projects.
- Directed/funded Capital Improvement Program “preserve and protect” projects, including drainage improvements, property surveys, gates, fencing, demolition/removal of structures and signs (boundary, rules and identification).
- Directed/funded installation of interpretive kiosks on four sites. These kiosks provide information to the public about purpose of acquisition, appropriate public use, management goals and ongoing restoration projects.
- Monitored four conservation easements managed by the Program staff to ensure compliance with easement conditions that protect of the sites’ conservation values

Enumclaw Plateau

- Completed Site Management Guidelines (SMGs) for one ecological site and a Stewardship Plan for one forest site. The SMG outlines maintenance needs of the site, recommends resolution of a legal property dispute, and proposes riparian restoration and timber management strategies.
- Conducted testing soils and structures on a farm property in order to assess contamination levels from potential meth lab activity on the site, prior to acquisition. Contaminated buildings will be cleaned or demolished in 2005.
- Directed/funded installation of rules and boundary signs for ecological sites in order to encourage appropriate public use and allow for control of illegal activities that present safety problems and degrade critical area resources.

Vashon

- Monitored two conservation easements managed by the Program staff to ensure compliance with easement conditions that protect the sites’ conservation values.
- Met with stakeholders to begin the planning process for development of a management plan for Island Center Forest, a new 200 acre acquisition that will come into King County ownership in early 2005.

PUBLIC BENEFIT RATING SYSTEM AND TIMBER LAND PROGRAMS

The Public Benefit Rating System and the Timber Land programs provide incentives to encourage private landowners to voluntarily conserve and protect land resources, open space and timber. In return for preserving these privately held resources with public benefits, land is assessed at a value consistent with its "current use" rather than the "highest and best use." The

reduction in assessed land value is greater than 50% and as much as 90% for the portion of the land participating in the program. Over 650 landowners and 7,500 acres are presently participating in these two programs, mostly located in the Rural Drainage Program service area. 2004 program accomplishments include:

Presented Public Benefit Rating System (PBRs), Timberland, and other current use assessment information during scheduled Forest Stewardship classes:

- Vashon: January 2004; 25+ landowners attended.
- Snoqualmie: April 2004; 25+ landowners attended.
- Enumclaw: (class held in Renton) 25+ landowners attended.

Processed PBRs and Timberland applications (received before deadline in 2003 processed during first half of 2004). A total of 50 PBRs and 6 Timberland applications were received from throughout King County.

- Vashon: 11 PBRs, 3 Timberland processed.
- Snoqualmie: 8 PBRs, 2 Timberland processed.
- Enumclaw: 4 PBRs, 0 Timberland processed.

Revaluated open space properties (property enrolled prior to the adoption of a PBRs program) with PBRs criteria. State law and county code require the revaluation of old open space taxation property with PBRs criteria if a county adopts such a program. There were approximately 92 properties in King County participating in this old open space program prior to the revaluation process last year, which includes properties located within incorporated areas – there are 15 or so remaining to be completed in 2005.

- Vashon: completed analysis and revaluation of 1 property.
- Snoqualmie: completed analysis and revaluation of 15 properties.
- Enumclaw: completed analysis and revaluation of 39 properties.

Monitored to ensure compliance with recorded open space taxation agreement and to provide education to enrolled landowners.

- Vashon: 1 property.
- Snoqualmie: 20 properties.
- Enumclaw: 9 properties.

Received 58 applications by the end of December 2004 (49 PBRs and 9 Timberland). These applications will be processed in the first half of 2005.

- Vashon: 9 PBRs, 0 Timberland received.
- Snoqualmie: 8 PBRs, 1 Timberland received.
- Enumclaw: 25 PBRs, 6 Timberland received.

Responded to over 800 phone calls from landowners and others throughout King County interested in the PBRs, Timberland and other current use assessment or conservation programs during 2004. Responded to approximately one-third as many email messages.

WATERSHED RESOURCE INVENTORY AREA SALMON RECOVERY PLANNING

In 2001, King County entered into agreements with local jurisdictions from throughout King County and portions of Snohomish County for the joint funding, development, and review of salmon conservation plans. This effort is in response to the listing of chinook salmon under the federal Endangered Species Act and is being handled under the auspices of the Watershed Resource Inventory Area (WRIA) planning process.

King County has WRIAs within its boundaries that focus on salmon restoration: WRIA 7 – Snohomish, WRIA 8 – Cedar/Sammamish, WRIA 9 – Duwamish/Green, and WRIA 10 – Puyallup/White.

The planning effort constitutes four significant steps, which will result in a salmon conservation plan for each watershed. The four steps are: (1) the Reconnaissance Assessment to identify what we know now; (2) the Near Term Action Agenda to identified steps to take in the next three to five years while the conservation plans are completed; (3) the Strategic Assessment to identify what we need to learn; and (4) the Comprehensive Conservation Plan to outline what we can do in the future.

The WRIAs in King County have completed the Strategic Assessment stage and are in various stages of review of the draft conservation plans. WRIA 7's draft plan has been adopted. WRIA 8's draft is complete and is undergoing its Forum review and approval with local governments. Ratification is expected to occur in late spring and early summer 2005. WRIA 9's draft plan is undergoing public review and comment with a December 2005 date for the final plan to be adopted. WRIA 10 is pursuing a different approach and is being led by Pierce County.

The tailored approach pursued in developing these plans will provide a “customized, watershed-based biological and ecological assessment that will serve as the science-based foundation for early- and interim action identification.” In other words, each WRIA will have developed a conservation plan that is specific to its situation and needs.

Rural surface water management fee dollars contribute toward King County's participation in the WRIA process. Increased development and growth to the region has compromised stream and other natural resource conditions. The restoration projects being identified through the WRIA planning process, will mitigate longstanding impacts to streams while restoring threatened species. These efforts will prevent more surface water management problems in the future and save money in the long run.

In addition, King County has participated since 2000 in a water supply planning process being conducted by Watershed Resource Inventory Area 15 (WRIA 15). WRIA 15 is primarily made up by the Kitsap Peninsula, but also includes Vashon-Maury Islands in King County. While governed by the direction of the state Watershed Planning Act, this planning process is developing recommendations for water supply planning as opposed to salmon recovery.

King County staff has worked with Vashon citizens via the Vashon Maury Island Groundwater Protection Committee to develop an island-specific plan. The plan addresses:

- Water Rights;
- Water Use & Conservation;

- Public Water Service;
- Exempt Wells;
- Instream Flows;
- Underground Storage Tanks;
- Stormwater Management;
- Septic Systems;
- Pesticides & Fertilizers; and,
- Governance.

The plan is scheduled for action in 2005. Once approved by the Vashon Maury Island Groundwater Protection Committee and passed by the WRIA 15 Planning Unit, the plan would be considered for adoption by the Metropolitan King County Council sometime, later in the year.

CAPITAL PROGRAM ACCOMPLISHMENTS

LARGE CAPITAL PROJECTS

Herb Farm Drainage Improvements – (Snoqualmie Sub Area)

During large storm events, SE 46th Street in Fall City (the former neighborhood of the renowned Herb Farm restaurant) would flood for over 24 hours, blocking emergency access to residents and flooding homes. This was due to inadequate surface water conveyance from Mitchell Hill drainage basin and from an improperly functioning drainage pipe on SE 46th Street.

Historically, when this area was forested, most of the runoff from Mitchell Hill infiltrated into the ground. However, years of development have eliminated much of the forest cover and forced alterations to the natural drainage system.

In the fall of 2003, a drainage improvement project was completed that redirected storm water runoff from Mitchell Hill and SE 46th Street to a natural stream/wetland complex that is part of the Patterson Creek system, using a pipe and conveyance channel.

The stream channel area was planted with 25 feet of native vegetation on each side of the stream. In addition, the wetland area was cleared of invasive vegetation and replanted with native plants. The project team worked closely with property owners to obtain the necessary easements enabling the project to be completed on time.

In 2004 a significant portion of the planting plan was completed and about 150 additional lengths of closed drainage system pipe was installed on Issaquah Fall City road beginning at 328th Ave SE and connecting to the system that flows to Koba pond.

Tuck Creek Phase II – (Snoqualmie Sub Area)

The objective of the Tuck Creek project was to relieve perpetual flooding of the fields adjacent to Tuck Creek in the Snoqualmie Valley. For years, continual sediment deposit, dredging, and bank shoring raised the creek bed several feet above the valley floor. Because of environmental regulations, continued dredging was not permitted. The creek became filled with sediment from the steep hillside reach along the Woodinville-Duvall Road. With the channel filled with sediment, the stream was in eminent danger of leaving its existing channel during a large storm, that could have caused widespread flooding and fish stranding.

The project constructed a raised farm road parallel to the existing channel, then created a new much larger stream channel between the road and the raised banks of the old channel. This allowed County staff to expedite permitting and avoid many of the obstacles normally associated with altering or relocating a stream channel. The net result is a very large stream corridor with an enhanced stream channel that is sized to provide many years of maintenance free function. The earthwork was substantially completed in 2002 with planting extending into 2003 and the actual stream connection occurring in 2003. The stream channel on the upstream side of Woodinville-Duvall Rd is still at risk of failure because larger alluvial deposit still fall out of the stream as the stream leaves the hillside and enters the valley floor. As this area is filled with these alluvial deposits the stream will always tend to seek a shorter route to the Snoqualmie River. The shortest route to the Snoqualmie in the case of Tuck Creek is across the Bellemy farm.

In 2004 the County installed additional large woody debris and completed additional plantings to improve the creeks ability to support fish.

Patterson Creek Tributary 383 – (Snoqualmie Sub Area)

The Tributary 383 Wetland Restoration Project restored five-and-one-half acres of degraded agricultural wetland on King County property in the Patterson Creek Basin. The first phase of this project was performed in September 2003 and included grading 427 hummocks and hollows to restore wetland topographic structure. In order to restore habitat for amphibians, increase invertebrate richness and general habitat functions, 846 pieces of small and large woody debris were positioned on the site. Over 1,000 willow live stakes were installed on the site in October 2003, and 1,840 trees and shrubs will be installed in March 2004.

The project is also restoring 4 acres of riparian corridor by planting native trees and shrubs and relocating 700 feet of stream, all on private property. In August 2003, Storybook Creek was relocated out of a straight, trapezoidal channel and placed into a meandering channel with large woody debris to provide structure, native vegetation, and diverse habitat units including riffles, runs, and pools. Planting of the riparian corridor will be performed in 2004 and will require the installation of 2,700 native trees and shrubs.

Shamrock Park – (Snoqualmie Sub Area)

The objective of this project was to reduce local flooding that occurred in the Shamrock Park Subdivision, located along 413th Ave. S near the City of North Bend. The project included the construction of a 24-foot drainage pipe. The pipe has a check valve and a shear gate to minimize the potential from flooding from the river. 95% of the money spent in 2004 was towards construction of this project. The remaining money was spent on project initiation and selection for improving conveyance in Ribary Creek.

Raging River / Preston Restoration – (Snoqualmie Sub Area)

The old Carlin Levee will be removed and seven acres of floodplain reconnected to the Raging River. This project will restore habitat quality and complexity to this while providing flood storage and conveyance improvements without compromising protection of the Preston-Fall City Road. In 2004, the County completed most of the design of the project, in order to secure grant funding for the construction phase.

Wilderness Rim 2 – (Snoqualmie Sub Area)

Wilderness Rim is a subdivision of several homes built around an enclosed depression outside North Bend. During heavy rains the depression fills, flooding adjacent homes. The proposed solution enlarged the depression to increase the groundwater infiltration rate and eliminate the flooding. Construction was completed in early 2002. In 2003 project staff monitored the infiltration rate to determine if further modifications were necessary.

Vashon Opportunity Project (Vashon Sub Area)

In 2004 two projects were accomplished under the Vashon Opportunity project.

Meadowlake Acquisition: In partnership with the Vashon/Maury Island Land Trust, 83 acres spread over 10 parcels is being acquired over a four-year period. In 2004 three parcels totaling

30.48 acres were acquired for \$553,000. In 2005, plans are to complete the acquisition of the remaining three parcels. To do this, \$200,000 of Conservation Futures Tax funds have been awarded. This largely forested area is important for groundwater recharge on Vashon and contains several large headwater wetlands to Judd Creek with numerous wildlife and passive recreation functions.

Groundwater Model Geologic Data: Data was acquired to begin construction of a groundwater model that aims to protect the island's sole source aquifer. This is the first step of a larger effort that will combine field monitoring, modeling, and analysis of groundwater conditions on Vashon-Maury Island. In 2005 the groundwater model will be expanded from the basic steady-state model initiated in 2004 and will begin to include variation in parameters such as weather conditions and rainfall, increases in development, loss of pervious surfaces or recharge areas, and increased water withdrawals.

Newaukum Creek Restoration (Enumclaw Sub-Area)

In 2004, King County placed 180 pieces of large woody debris (LWD) along a half-mile of Newaukum Creek, near the City of Enumclaw, with a large construction crane. The lack of LWD is believed to be a limiting factor to natural salmonid production in this stream according to the Duwamish-Green Watershed, Limiting Factors Report, completed through the WRIA salmon conservation planning effort. The LWD ranged in size from eight to 40 inches in diameter, and the pieces were 25 to 30 feet long with root balls attached. The crane allowed the wood to be strategically placed with minimal disruption to surrounding native vegetation and the stream bank. Special thanks to the City of Enumclaw for allowing this project to occur on their property.

DRAINAGE AND HABITAT IMPROVEMENT PROGRAM PROJECTS

The Drainage and Habitat Improvement program designs and constructs structures and/or installs habitat features to improve surface water drainage and/or sensitive habitat. Such projects include elimination of localized flooding, erosion and sediment control, improving fish passage and habitat, and bank stabilization. These projects are typically planned and constructed within a two-year timeframe.

Another service the program provides is technical assistance, other agency referral, engineering, environmental and/or permit guidance to the public.

Deer Creek/Pickering (Snoqualmie Sub-Area)

This project day-lighted and reconstructed about 200 feet of a section of this low gradient stream that passes under State Route 203, about two miles South of Duvall. The goals of the project were to remove a temporal fish barrier, and improve water and habitat quality. The planting component of the project removed invasive vegetation and replanted stream banks with native vegetation that is expected to provide both shade and cover to improve water quality and juvenile fish survival.

Patterson SE 40th Fl PS (Snoqualmie Sub-Area)

The Patterson Creek Fish passage and Drainage Improvement Project was designed, permitted, and constructed in 2004. The project was identified in King County's Rural Reconnaissance Report as the lowest fish blockage in the south fork of Patterson Creek. The project replaced five stacked 36-inch concrete culverts with a box culvert to restore fish

passage, natural stream function, and improve storm flow. The culverts were failing with large separations and voids under a private road that served as sole access for several families. Drainage for this project includes Mitchell Hill and the drainage from the Herb Farm projects constructed in previous years. All construction and mitigation was completed in 2004. Only activity left to complete is regulatory monitoring. This project is located in Fall City.

Tahlequah Creek Fish Pass (Vashon Sub Area)

This project identified as a potential project site on Vashon Island for fish passage improvement. Tahlequah Creek is a Coho stream that runs through a 300-foot concrete flume before entering Puget Sound at the south end of Vashon Island near the Tahlequah Ferry. Some Coho have been discovered above the flume, in the very good quality, upstream habitat located there. The flume drains through a private waterfront residence and floods during extreme rain events. Identified options would be highly engineered and fairly expensive or exacerbate the already existing flooding problem.

Because of these reasons, the project is on hold and may be added as a potential large Capital Improvement Project on Vashon Island in the future.

Kerriston/William FIS (Snoqualmie Sub-Area)

The Project was identified early in 2004 as an emergency fish passage barrier removal project. The scope of the project was to repair a damaged fish ladder and rebuild a stream that avulsed due to a beaver dam failure, upstream of the structure. The fish ladder was installed by King County six years ago and functioned perfectly until an unexpected extreme flow, caused from a beaver dam, clogged the outlet to a large wetland at the headwaters of Williams Creek. This sent a gush of water through a large culvert and into the project area. The shoulder of Kerriston Road was also experiencing failure as a result. This project is located high in the Cedar River Watershed.

RURAL DRAINAGE FACILITY RETROFIT PROGRAM PROJECTS

This program modifies existing regional storm and county-owned residential retention/detention ponds or bioswales to improve their performance, prevent flooding and degradation of natural habitat, protect water quality, public health and safety, and public property. In 2004, two bio-swale facilities were regraded to restore appropriate flow rates and the grass was reseeded.

RURAL NEIGHBORHOOD DRAINAGE ASSISTANCE PROGRAM PROJECTS

The Rural Neighborhood Drainage Assistance Program helps private landowners solve drainage problems impacting three or more parcels, often caused by increased development upstream, and for which no other County program is available. Projects range anywhere from a few thousand dollars to over \$100,000, although most projects are between \$5,000 and \$30,000. In 2003, the program accomplished the following:

Fogelberg Culvert Replacement(Enumclaw Sub-Area)

Design is underway to repair a mashed culvert in a farm field that is backing up water onto the adjacent road, creating a hazard. The problem is under consideration and a solution is expected by summer of 2005.

413th Ave/ S Flood Improvements (Snoqualmie Sub-Area)

The project reduced the local flooding occurring in the Shamrock Park Subdivision, located along 413th Ave. S near the city of North Bend. A 24-inch pipe that drains the Subdivision. The pipe has a check valve and a shear gate to minimize potential flooding from the river. Initial expenditures for this project were made under the NDA program, remaining expenditures were made under the separate “Shamrock Park” project. (See “Shamrock Park” on p. 30.)

Latham Drainage Improvements (Snoqualmie Sub-Area)

A crushed driveway culvert blocked flows and backed up water to a house during storms. The flows were high enough that a severe storm could result in the flooding of the homeowner’s first floor. Project engineers replaced the culvert.

Gold Beach / Rossi (Vashon Sub Area)

Runoff from the road and upstream development collected on a driveway, flooding a homeowner’s garage and landscaping. Project staff installed a pipe to carry flows away from the problem area.

North Vashon Drainage Improvement (Vashon Sub Area)

A newly constructed residence in North Vashon was prone to flooding from Vashon Highway runoff and from an adjacent steep slope. Engineers built an infiltration pond and constructed a road ditch to reduce the flows.

Bambrink Drainage Improvements (Vashon Sub Area)

Routed flows away from problem area to prevent flooding of a house.

Cedar Vila Drainage Improvements (Vashon Sub Area)

A poorly functioning stormwater pond was backing up water and flooding a crawlspace. Engineers decreased the flow to the pond, rerouting it to the road drainage.

Lund Quick Fix Drainage Improvements (Snoqualmie Sub-Area)

Tree roots were invading and blocking a drain pipe from a stormwater detention pond, preventing the pond from draining and flooding the homeowner's yard and basement. Project engineers installed a new catch basin and 20 feet of pipe so that proper drainage would resume.

AGRICULTURAL DRAINAGE ASSISTANCE PROGRAM

The Agricultural Drainage Assistance Program (ADAP) provides technical and financial support, through the Rural Drainage Program, to farmers attempting to maintain agricultural waterways. To prevent further loss in farmland, this program provides assistance in obtaining the necessary permits, cost share funding for best management practices including mitigation, and pre-and post-project monitoring.

In 2004, with the assistance of ADAP, four drainage improvement projects were completed in the RDP fee area:

- Watercress Creek Drainage Improvement (Enumclaw Sub-Area) – This project was a collaborative project with King County Road Maintenance Section, Capital Project Open Space Acquisitions Section, and Agricultural Drainage Assistance Program. Drainage was improved on State Route 164 and agricultural land adjacent and upstream of the project site. 900 feet of ditch was maintained. Washington State University is using this project to research water quality, fish usage, and erosion control.
- Pickering/Olney Culvert Replacement (Snoqualmie Sub-Area) – A rushed culvert was inhibiting flow. To improve conveyance, the culvert was replaced. The replacement was coordination with a King County Road Maintenance Section culvert replacement on NE 124th Street. Both culvert replacements provide better conveyance for water from south of NE 124th Street to the Snoqualmie River.
- Pickering/Olney Drainage Improvement (Snoqualmie Sub-Area) – Around 2100 feet of ditch was maintained to improve conveyance. Large woody debris was installed to improve fish habitat and the plantings were installed during the fall of 2004. Washington State University is using this project to conduct research on water, fish usage, erosion control, and reed canary grass control.
- Ewing (Enumclaw Sub-Area) – 700 feet of ditch was maintained. This project will reduce flooding on State Route 164 and flooding on adjacent properties. The watercourse will be planted in February 2005. Washington State University is using this site to research erosion control.

In 2003, King County signed a technical services agreement with Washington State University to research which best management practices are effective in protecting salmonids and water quality while maintaining agricultural drainage ditches. The research is also investigating sediment and reed canary grass control. There are over 20 landowners involved in this five-year research project from four of the agricultural production districts. A sampling analysis plan was developed. Pre- and post-project monitoring occurs monthly throughout the County. An annual report was developed and distributed to the public. Initial research findings were presented at Western Washington Horticultural Association, Water Resources Research and Extension Colloquium, Small Farms Expo, Harvest Celebration Tour (four research booths), and Northwest Tilth Conference.

Additionally, a technical services agreement with the King Conservation District was signed to provide engineering and permit development assistance.

During 2004, ADAP reviewed and provided comments on changes to King County's Critical Areas Ordinance package and the Farm Management Plan Public Rule. Additionally, ADAP worked with Washington Department of Fish and Wildlife and King Conservation District on a Memorandum of Understanding for the implementation of the regulations.

ADAP worked with King County's Department of Development and Environmental Services to streamline the permitting process for agricultural ditch maintenance and make it easier for farmers to maintain ditches reduce flooding. In short, permits for agricultural drainage ditch maintenance are no longer required from King County. Maintenance of agricultural ditches must be done within the constructs of a farm plan. State requirements will still apply.

In 2004, ADAP was also involved in many outreach efforts to educate the public about the program and regulations associated with agricultural ditch maintenance. Through these efforts there are now close to 50 agricultural landowners requesting assistance from the program.

- Two videos about ditch maintenance were produced and are available to landowners.
- The program responded to approximately 500 technical information requests from the public, government agencies, and non-profit groups.
- Two flyers about ADAP or related issues were created in 2004.
- A web site describing ADAP's activities and monitoring report can be found at the following address: <http://dnr.metrokc.gov/wlr/waterres/fnd/index.htm>.

LIVESTOCK MANAGEMENT ORDINANCE COST SHARING PROGRAM

The Livestock Management Cost Sharing Program provides livestock farmers grants that defray implementation costs recommended by King Conservation District-developed farm plans. Implementing these property improvements and practices will also bring farmers into compliance with King County's Livestock Management Ordinance. Because animal nitrates are one of the most significant pollutants found in rural streams, these efforts aim to improve water quality by regulating livestock farming practices, particularly related to manure management.

In 2004, \$56,000 was granted towards better livestock-management at the following locations:

- 397th Avenue SE, Snoqualmie Valley; constructed confinement area, waste storage structure and buffer fencing.
- Fall City-Preston Road; constructed confinement area.
- West Snoqualmie River Road NE, Snoqualmie Valley; installed manure management curbing.
- Veazie-Cumberland Road, Enumclaw Plateau; installed manure management equipment.
- 276th Avenue SE, Enumclaw Plateau; installed manure management equipment.
- 364th Avenue SE, Enumclaw Plateau; constructed buffer fencing, confinement area and renovated pasture.
- SE 440th Street, Enumclaw Plateau; installed manure management equipment.

- SE 464th Street, Enumclaw Plateau; constructed cross fencing.
- Enumclaw-Franklin Road SE, Enumclaw Plateau; constructed confinement area, roof runoff management, manure storage structure and cross fencing.
- 264th Avenue SE, Enumclaw Plateau; constructed confinement area and manure storage structure.
- SE Green Valley Road, Enumclaw Plateau; constructed confinement area and cross fencing.
- 121st Avenue SW, Vashon; constructed confinement area.
- 111th Avenue SW, Vashon; constructed manure storage structure and confinement area.
- 111th Avenue SW, Vashon; constructed confinement area.
- Cove Road, Vashon; constructed confinement area.

SMALL HABITAT RESTORATION PROGRAM

This award-winning program completes small-scale habitat restoration projects along stream corridors and wetlands. Project efforts include stabilizing eroding stream banks, installing livestock fencing, and planting native vegetation. Individual project costs typically range from \$5,000 to \$15,000. Projects are constructed on private or public property as long as they provide benefit to the public at large. 2004 projects include:

Grand Canyon (Vashon Land Trust) (Vashon Sub Area)

3,100 square feet of exposed slopes and establish terraces was stabilized to stop future slides from entering the active channel along the headwaters of Shinglemill Creek. Work included fascines, waddles, log terracing, brush dams, staking, and planting throughout the canyon.

Grand Canyon Erosion Control (Maury-Vashon Island Land Trust Property) (Vashon Sub Area)

This project further stabilized a rapidly eroding ravine that is a source of sediment to salmon-bearing Shinglemill Creek, downstream. Terraces and willow fascines constructed during 2002 to establish vegetation on very steep, sandy hillsides were amended. The project improved 3,100 square feet of stream buffer along 800 lineal feet of Shinglemill Creek. This work will have benefits for much of Shinglemill Creek, one of Vashon's few streams that support both coho and chum salmon.

Striker (Private Property) (Snoqualmie Sub-Area)

500 feet of stream corridor on both sides of Langlois Creek was restored. Langlois Creek is a small system, with high concentrations of spawning coho. The Washington Department of Fish and Wildlife surveys document more than 100 fish as late as 1998 in their 0.4 mile index reach. Project will be expanded in Winter 2004.

Three Forks (KC Ownership) (Snoqualmie Sub-Area)

This project removed approximately 1.5 acres of dense blackberry from the banks of the Middle Fork Snoqualmie River near the Norman Bridge, within the Three Forks Natural Area. An irrigation system was installed and the site was planted in early 2004 with native trees and shrubs to restore riparian habitat.

Snider Buffer Revegetation (Private Ownership) (Snoqualmie Sub-Area)

This project improved 7,500 square feet of wetland and stream buffer by cutting and covering blackberry with mulch and installing native plants. Blackberry removal and weed fabric placement was completed during 2003; planting continued into the winter of 2004.

Anderson Fish Passage Improvement (Private Ownership) (Snoqualmie Sub-Area)

A small gap through a relict beaver dam was widened to prevent re-damming by the beaver and to enable Patterson Creek to flow through a high-quality forested wetland rather than a reed canarygrass-infested field. Planting took place in January 2004.

Williams Riparian Restoration (Private Ownership) (Snoqualmie Sub-Area)

Blackberry was removed from one-half acre of a riparian/wetland area in the Snoqualmie River floodplain. The area was covered with weed-control fabric and planted during the fall of 2003. Further plantings will occur once shade has been established.

Camp River Riparian Restoration (Private Ownership) (Snoqualmie Sub-Area)

A parking lot at a Girl Scout camp in the floodplain of the Tolt River was removed and replaced with native plantings, improving one acre of stream buffer. The camp includes more than a mile of river frontage on the Tolt River. Red alder will be planted in the buffer during the winter of 2004.

Norris Buffer Revegetation (Private Ownership) (Snoqualmie Sub-Area)

One acre of stream buffer along Harris Creek and a small wetland were planted with alders and conifers.

Chinook Bend Wetland Restoration (KC and Private Ownership) (Snoqualmie Sub-Area)

This project will restore the historic outlet of the open water wetland at Chinook Bend by plugging an existing culvert. The wetland may then provide off-channel rearing habitat for juvenile salmonids. Survey and design work was accomplished in 2003 and construction took place in 2004.

Lower Griffin Creek Wetland Enhancement (Private Ownership) (Snoqualmie Sub-Area)

Cottonwood and willow poles with beaver protection were planted in the wetland buffer near the mouth of Griffin Creek, at the Snoqualmie River.

Chinook Bend 2 (KC Ownership) (Snoqualmie Sub-Area)

Restored the floodplain of the Snoqualmie River to historical forested conditions using a successful planting approach that planted nonshade-tolerant species in some areas and controlled invasive plants with shade. Also planning daylighting outlet of class 2 wetland (ten acres). The project has been active since January 2000.

Ober Creek Fish Passage Restoration (Private Ownership)

This culvert replacement project on Vashon Island provided access for coho and chum to approximately 1000 linear feet of habitat upstream of the culverts on Ober Creek.

Reedal (KC Easement, Private Ownership) (Snoqualmie Sub-Area)

Completed maintenance and additional planting on riparian buffer along Carey Creek. Removed 15 cubic yards of blackberry from four and one-half acres along the easement boundary and planted bare-root Red Alder on one acre along 1400 lineal feet of Carey Creek.

Richards Phase 1 (Private Ownership) (Enumclaw Sub-Area)

Planted 165 linear feet along Newaukum Creek, much within Bonneville Power ROW.

Brown Floodplain (Private Ownership) (Enumclaw Sub-Area)

Installed fencing, and 28,750 of native plants to establish a riparian buffer along 475 lineal feet of Newaukum Creek.

Tuohy (Private Ownership) (Enumclaw Sub-Area)

Planted conifers along 45,000 square feet of riparian buffer along 600 lineal feet of Newaukum Creek.

Storybrook (Private Ownership) (Snoqualmie Sub-Area)

Restored riparian vegetation along future and existing Storybook Creek. Total restored riparian area is about 2.7 acres. The Small Habitat Restoration Program's involvement is planting and monitoring. Owner is responsible for maintenance.

Stillwater (Private Ownership) (Snoqualmie Sub-Area)

Planted native vegetation along one acre of the Snoqualmie River in a heavily eroded area.

Andrews/Foster (Private Property) (Snoqualmie Sub-Area)

Removed fill and replanted buffer to Weiss Creek to restore connectivity between a stream and wetland.

Boise Creek Golf Course (KC Ownership) (Enumclaw Sub-Area)

Controlled knotweed and Himalayan blackberry by planting 14,650 of riparian buffer along 460 lineal feet of Boise Creek.

Fern Cove (Private Property) (Vashon Sub Area)

Removed English Ivy from isolated 5,000 square foot patch on southwest side of Shinglemill Cr. In Fern Cove Natural Area on Vashon Island.

Christensen Creek/Fisher Pond (Snoqualmie Sub-Area)

This project cleared invasive weeds (Scot's Broom) from the buffer of a pond at the headwaters to Shinglemill creek.

NATURAL LANDS CAPITAL IMPROVEMENT PROJECT – (ALL SUB AREAS)

This program provides minor improvements to preserve and protect King County-acquired natural lands under the goals of the Rural Drainage Program. Improvements are most often fencing and bollards to restrict access or signs designating property boundaries or specifying rules for entering the property.

COMMUNITY PARTNERSHIP GRANTS PROGRAM

This program provides small grants to neighborhood groups to solve drainage, water quality, and habitat problems. The program is being publicized through press releases in community newspapers, targeted mailings to community service groups, and through the World Wide Web. In 2004, King County expenditures supported the following grants:

FRIENDS OF THE TRAIL

Illegal Dump/Litter Clean-up -Snoqualmie River and Tributaries. Expanding on previous cleanups of public lands and waterways in East King County, the project maintained and monitored areas with high rates of illegal dumping and littering, and will coordinate educational efforts to prevent further dumping.

Mid-Puget Sound Fisheries Enhancement Group

Newaukum Creek Side Channel Riparian and Wetland Restoration Project. The City of Enumclaw recently acquired 58 acres along Newaukum Creek. Mid Sound Fisheries Enhancement Group helped create a 350-foot (10,500 square feet) side channel just downstream of Mahler Park. In addition, a 2.6-acre parcel surrounding the project site was cleared of blackberry and planted with native species. Two miles of fencing along Newaukum Creek was removed and adjacent riparian and wetland areas were surveyed, and additional stream restoration along this reach of Newaukum Creek was designed.

RURAL CAPITAL RECONNAISSANCE

This program identifies and analyses problems that might be solved through a King County capital program. This may include construction of drainage facilities, restoration of degraded aquatic habitat, or the purchase of the property or its development rights. In 2004 the program funded approximately 30% of each basin steward to identify salmon conservation projects and apply for grant funding. The program also conducted the Maury Island Ecological Economic Evaluation, which inventoried Maury Island's ecological assets and estimated their economic value for use in decision-making, fostering sustainable business practices, and planning how the island's land is used.

Geographic Allocation of Expenditures

Operating	2000 - 2002			2003			2004			Area Totals		
	Snoqualmie	Vashon	Enumclaw	Snoqualmie	Vashon	Enumclaw	Snoqualmie	Vashon	Enumclaw	Snoqualmie	Vashon	Enumclaw
1 Complaint Investigation	\$109,899	\$38,166	\$67,787	\$51,093	\$14,138	\$34,926	\$51,344	\$19,671	\$17,737	\$212,336	\$71,975	\$120,450
2 Residential Facility Maintenance	\$321,271	\$14,603	\$29,199	\$159,925	\$7,269	\$14,539	\$232,535	\$10,570	\$21,140	\$713,731	\$32,442	\$64,877
3 Commercial Facility Inspection	\$21,675	\$18,062	\$5,419	\$20,562	\$17,135	\$5,140	\$26,716	\$22,263	\$6,679	\$68,952	\$57,460	\$17,238
4 Engineering Studies	\$79	\$35	\$38	\$1,127	\$499	\$542	\$0	\$0	\$0	\$1,206	\$534	\$580
5 WQ Compliance	\$30,513	\$12,229	\$30,645	\$15,878	\$11,407	\$9,859	\$27,284	\$14,739	\$7,425	\$73,675	\$38,376	\$47,929
6 Environmental Enforcement	\$467,418	\$116,829	\$377,929	\$257,511	\$56,740	\$122,209	\$304,588	\$62,161	\$90,133	\$1,029,517	\$235,730	\$590,270
7 Agriculture	\$193,332	\$21,618	\$81,258	\$122,685	\$11,502	\$57,509	\$107,781	\$0	\$84,685	\$423,798	\$33,120	\$223,452
8 ADAP Support	\$117,068	\$0	\$48,022	\$0	\$0	\$0	\$0	\$0	\$0	\$117,068	\$0	\$48,022
9 Rural Forest Retention	\$212,258	\$75,537	\$25,873	\$70,530	\$104,890	\$5,425	\$30,228	\$23,864	\$25,455	\$313,016	\$204,292	\$56,754
10 Natural Lands Mgmt	\$48,261	\$2,161	\$21,610	\$231,876	\$2,639	\$129,293	\$63,912	\$7,101	\$71,013	\$344,049	\$11,901	\$221,915
11 PBRS	\$16,481	\$28,347	\$21,096	\$28,705	\$21,529	\$39,470	\$20,202	\$13,755	\$18,591	\$65,389	\$63,632	\$79,156
12 Snoqualmie Steward	\$257,172	\$0	\$0	\$129,929	\$0	\$0	\$140,639	\$0	\$0	\$527,740	\$0	\$0
13 Vashon Steward	\$0	\$171,655	\$0	\$0	\$127,800	\$0	\$0	\$112,159	\$0	\$0	\$411,614	\$0
14 Enumclaw Steward	\$0	\$0	\$194,215	\$0	\$0	\$140,911	\$0	\$0	\$82,974	\$0	\$0	\$418,100
15 Lakes Stewardship	\$86,928	\$0	\$77,087	\$36,709	\$0	\$32,553	\$70,480	\$0	\$62,501	\$194,117	\$0	\$172,142
16 Vashon Groundwater	\$0	\$252,887	\$0	\$0	\$122,330	\$0	\$0	\$200,770	\$0	\$0	\$575,987	\$0
17 East King County Groundwater	\$0	\$0	\$0	\$42,023	\$0	\$0	\$97,005	\$0	\$0	\$139,029	\$0	\$0
18 Snoqualmie Tech Support	\$112,158	\$0	\$0	\$105,086	\$0	\$0	\$125,175	\$0	\$0	\$342,419	\$0	\$0
19 CIP Recon Support	\$112,715	\$49,855	\$54,190	\$113,160	\$50,051	\$54,404	\$0	\$0	\$0	\$225,875	\$99,906	\$108,594
20 Cap Project Transfer	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
21 Rural Coordinator	\$121,551	\$53,763	\$58,438	\$20,836	\$9,216	\$10,017	\$24,499	\$10,836	\$11,779	\$166,887	\$73,815	\$80,234
22 Overhead	\$242,643	\$108,059	\$117,863	\$80,508	\$35,609	\$38,706	\$124,706	\$55,158	\$59,955	\$447,856	\$198,826	\$216,523
23 Misc. Technical Support	\$37,570	\$16,618	\$18,063	\$1,554	\$687	\$747	\$1,843	\$815	\$886	\$40,967	\$18,120	\$19,695
24 ESA Compliance	\$78,000	\$34,500	\$37,500	\$78,000	\$34,500	\$37,500	\$46,499	\$23,250	\$23,250	\$202,499	\$92,250	\$98,250
25 Administration	\$31,719	\$21,594	\$22,263	\$107,236	\$47,431	\$51,556	\$124,366	\$55,008	\$59,791	\$263,321	\$124,033	\$133,610
Total	\$2,618,712	\$1,036,518	\$1,288,493	\$1,674,933	\$675,373	\$785,305	\$1,619,802	\$632,121	\$643,993	\$5,913,446	\$2,344,012	\$2,717,791

Capital	2000 - 2002			2003			2004			Area Totals		
	Snoqualmie	Vashon	Enumclaw	Snoqualmie	Vashon	Enumclaw	Snoqualmie	Vashon	Enumclaw	Snoqualmie	Vashon	Enumclaw
1 Wilderness Rim	\$184,768	\$0	\$0	\$1,483	\$0	\$0	\$2,036	\$0	\$0	\$188,287	\$0	\$0
2 Shinglemill Phase II	\$0	\$58,328	\$0	\$0	\$3,953	\$0	\$0	\$123	\$0	\$0	\$62,404	\$0
3 Tuck Creek Phase II	\$287,407	\$0	\$0	\$40,970	\$0	\$0	\$15,875	\$0	\$0	\$344,253	\$0	\$0
4 Neighborhood Drainage Assistance	\$77,979	\$19,139	\$226,816	\$71,885	\$13,535	\$14,599	\$88,122	\$32,757	\$32,793	\$237,986	\$65,431	\$274,208
5 East KC Groundwater	\$104,193	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$104,193	\$0	\$0
6 Small Habitat Restoration Program	\$187,812	\$32,945	\$19,226	\$96,194	\$44,638	\$16,590	\$78,382	\$70,019	\$39,811	\$362,388	\$147,602	\$75,627
7 Drainage & Habitat Improvements	\$187,172	\$57,499	\$119,576	\$282,474	\$101,021	\$15,042	\$227,089	\$11,326	\$11,816	\$696,735	\$169,846	\$146,435
8 LMO Cost Share	\$17,685	\$11,448	\$49,277	\$9,871	\$6,945	\$35,386	\$20,699	\$9,200	\$26,411	\$48,255	\$27,594	\$111,074
9 Agricultural Drainage Assistance Prog	\$340,033	\$0	\$113,589	\$170,555	\$0	\$83,508	\$258,209	\$0	\$123,473	\$768,797	\$0	\$320,570
10 CIP Reconnaissance	\$128,338	\$76,073	\$79,603	\$155,304	\$78,185	\$91,127	\$116,491	\$89,679	\$91,390	\$400,134	\$243,937	\$262,121
11 Rural Partnership Grants	\$5,208	\$92	\$20,100	\$64,607	\$1,374	\$1,494	\$52,438	\$0	\$21,384	\$122,253	\$1,466	\$42,978
12 Facility Retrofit	\$4,628	\$154	\$168	\$1,482	\$0	\$0	\$3,468	\$0	\$0	\$9,579	\$154	\$168
13 Engineering Studies	\$17,934	\$16,104	\$6,934	\$2,181	\$1,336	\$1,048	\$0	\$0	\$0	\$20,115	\$17,441	\$7,983
14 Drainage District 13 Repair	\$0	\$0	\$300,294	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$300,294
15 Emergency / Rapid Response	\$33,386	\$0	\$0	\$41,411	\$1,899	\$2,428	\$23,118	\$1,836	\$117,469	\$97,915	\$3,735	\$119,897
16 Shamrock Park	\$0	\$0	\$0	\$71	\$0	\$0	\$23,759	\$0	\$0	\$23,830	\$0	\$0
17 Herb Farm	\$0	\$0	\$0	\$231,404	\$0	\$0	\$19,986	\$0	\$0	\$251,389	\$0	\$0
18 Vashon Opportunity Project	\$0	\$0	\$0	\$0	\$285,944	\$0	\$0	\$284,877	\$0	\$0	\$570,821	\$0
19 Habitat Feasibility Studies	\$0	\$0	\$0	\$43,448	\$8,876	\$11,777	\$38,827	\$11,982	\$38,491	\$82,274	\$20,857	\$50,268
20 Patterson Crk Trib 383 Restoration	\$0	\$0	\$0	\$8,258	\$0	\$0	\$77,894	\$0	\$0	\$86,152	\$0	\$0
21 Natural Lands CIP	\$0	\$0	\$0	\$6,094	\$0	\$2,031	\$32,671	\$6,683	\$34,898	\$38,765	\$6,683	\$36,929
22 Green River Ecosystem Restorator	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$249,230	\$0	\$0	\$249,230
23 Raging River Restoration	\$0	\$0	\$0	\$0	\$0	\$0	\$100,946	\$0	\$0	\$100,946	\$0	\$0
Total	\$1,576,542	\$271,783	\$935,584	\$1,227,692	\$547,706	\$275,032	\$1,180,010	\$518,483	\$787,166	\$3,984,244	\$1,337,972	\$1,997,782

2005 OPERATING BUDGET

Stormwater	Residential Stormwater Facilities Maintenance	\$151,313
	Commercial Stormwater Facility Inspections	\$59,032
	Drainage Enforcements	\$13,311
	WQ Compliance	\$46,636
	Environmental Enforcement (DDES)	\$189,457
	Drainage Complaint Response	\$137,128
Stewardship	Enumclaw Steward	\$179,641
	Snoqualmie Steward	\$208,615
	Vashon Steward	\$191,230
	Lake Stewardship	\$111,234
	Snoqualmie Assessment	\$32,870
	Vashon Ground Water	\$287,971
	East KC Ground Water	\$132,678
	Contribution to Regional ESA Planning	\$150,000
Rural & Resource Programs	Rural & Resource Programs Admin	\$3,801
	Forest Preservation	\$78,062
	Natural Lands Management	\$134,119
	Forestry/Ag Incentive Program	\$108,050
	Agriculture Preservation	\$282,941
Capital Transfer	Transfer to Capital Budget	\$1,380,000
Admin and Overhead	Rural Program Coordinator	\$47,822
	King County Overhead Costs	\$405,943
	Total	4,331,854

2005 CAPITAL BUDGET

Project Name	Budget	Location
Green River Ecosystem Restoration	(\$38,353)	Enumclaw
Newaukum / Plemmons Restoration	\$38,000	Enumclaw
Herb Farm	\$18,612	Snoqualmie
Tuck Creek Phase 2	\$34,163	Snoqualmie
Shamrock Park	\$96,169	Snoqualmie
Vashon Opportunity (Ober Park LID)	\$44,178	Vashon
Vashon Groundwater Model	\$174,820	Vashon
Piner Point Acquisition	\$70,000	Vashon
Judd Headwater Acquisition	\$160,000	Vashon
Neighborhood Drainage Assistance	\$111,338	Multiple
Small Habitat Restoration Program	\$126,827	Multiple
Drainage and Habitat Improvements	\$158,954	Multiple
Agriculture Water Quality BMP Cost-Share Program	\$143,840	Multiple
Agriculture Drainage Assistance Program	\$475,782	Multiple
CIP Reconnaissance	(\$8,357)	Multiple
Rapid Response / Emergency Program	\$85,327	Multiple
Habitat Feasibility Studies	\$16,600	Multiple
Rural Community Partnership Grants	\$60,151	Multiple
Drainage Facility Retrofit Program	\$23,531	Multiple
Natural Lands Preserve and Protect	\$82,622	Multiple
Total	\$1,874,204	

(Note: Negative budgets are shown for projects where 2004 expenditures exceeded the available budget authority. The negative amount will be resolved by transferring excess budget from another project, or by allocating additional budget authority in 2006.)