

# HIGHLY FOCUSED STEWARDSHIP ASSISTANCE IN THE SNOQUALMIE: A MODEL FOR RURAL WATERSHEDS

## COVER PAGE

### Puget Sound Watershed

This project will take place in the Snoqualmie River watershed, part of the larger Snohomish River watershed and Water Resource Inventory Area (WRIA) 7. The Snohomish River flows directly into Puget Sound. The 689 square mile Snoqualmie watershed covers much of northeast King County and drains the southern portion of the Snohomish watershed. The focal areas for the project are the Raging River subbasin (32 square miles) and the Patterson Creek subbasin (20 square miles), which together comprise the southwestern corner of the Snoqualmie watershed.

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### Abstract

This project will create a highly focused community stewardship program in two Snoqualmie subbasins at risk from development-related impacts and already showing signs of ecosystem degradation. Private landowners will receive customized education, technical assistance, and incentives to retain forest cover, minimize development footprints, implement Low Impact Development and other best management practices, and restore or enhance portions of their properties. The approach will be community-driven, developing a communication network that is personal, one-on-one and highly responsive to individual landowner needs.

The project's intent is to create a "critical mass" of contiguous protected and/or restored private lands along ecologically important stream reaches and in adjacent forests. Performance targets include commitments to tangible, long-term stewardship actions by at least 60 landowners owning 750 acres. The approach also is intended to greatly increase overall networked community stewardship in the watershed, so the project's benefits and commitments outlast the grant.

The grant will evaluate the effectiveness of this approach compared to traditional non-focused approaches where stewardship programs respond to landowner requests, but do not employ coordinated outreach among multiple programs, specific community communication networks or strong sponsorship by the local community. Evaluation of the effectiveness of this focused approach and community networks will lead to development of an improved stewardship assistance model and tools that can be adapted to other watersheds.

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## PROJECT NARRATIVE

### Description of the watershed

The Snoqualmie watershed is part of Water Resource Inventory Area (WRIA) 7, which also includes the Skykomish and Snohomish Rivers (see Figure 1). Within the Snoqualmie watershed, focused stewardship efforts are proposed in two priority subbasins in rural, unincorporated King County. The Raging River and Patterson Creek were chosen as locations for this new approach based on several factors:

- The subbasins' importance for ecological and water quality protection;
- Their high usage by listed salmonid species and priority within relevant watershed planning efforts;
- Their relatively high level of pressure for residential development;
- The presence of a landscape and individual properties with characteristics that are well-suited to stewardship programs; and
- The presence of community leaders and groups to help sponsor this effort and build a constituency and communication network for stewardship.

The Snoqualmie watershed supports significant fish populations, including wild runs of coho, chinook, pink, chum salmon and steelhead trout. Chinook salmon and steelhead trout are listed as threatened and coho salmon are listed as a species of concern under the Endangered Species Act. WRIA 7 produces more coho than any other watershed between the Columbia River and the Canadian border, representing between 25% and 50% of all Puget Sound coho. Much of this production is from Snoqualmie tributaries.

The majority of land in the Snoqualmie watershed is within unincorporated King County. Below the Snoqualmie Falls, much of the land along the mainstem is located within a large, designated Agriculture Production District (APD). Subbasins draining to the lower Snoqualmie are largely zoned for rural residential use, except for the upper reaches of several tributaries, which lie primarily within the designated Forest Production District.

The Snoqualmie watershed is experiencing significant population growth. Between 1980 and 1999, the population in the watershed nearly doubled, from just under 20,000 to approximately 38,000 residents. The Puget Sound Regional Council predicts that the population will continue to grow to over 70,000 residents by 2020. Impacts of this rapid growth contributed to American Rivers designating the Snoqualmie as one of America's "ten most endangered rivers" in 2001.

Snoqualmie watershed subbasins such as the Raging River and Patterson Creek are experiencing habitat threats related to this development pressure. These include stream channelization and clearing, loss of forest cover, declining forest health, and increased impervious surface. Unrestricted livestock in some agricultural areas also threaten water quality.

The lower Raging River is a productive spawning ground for chinook salmon and steelhead. To date, there has been a low level of community outreach to residents of this

river corridor regarding stewardship. Much of the Raging River subbasin is in public or large private land ownership; however, most of the riparian area consists of smaller parcels which are privately owned (see Figure 2). A focused stewardship effort there will address the areas at greatest risk in this subbasin.

Patterson Creek is under a high degree of development pressure, as a portion of the subbasin is within the Urban Growth Area. The subbasin also includes significant agricultural lands, especially around the mouth of Patterson Creek. The mainstem corridor includes a significant wetland complex, part of an extensive 634-acre wetland system in the subbasin. These wetlands help Patterson Creek support fish and wildlife, including a large coho population. Problems in the Patterson Creek subbasin include invasive species, lack of large woody debris, stream erosion, and non-point source pollution. Of particular concern are water quality impairments including excessive levels of metals, nutrients, fecal coliform bacteria, and turbidity, stemming from agricultural and rural land use. These water quality problems have been documented in a Total Maximum Daily Load for the Snoqualmie, as well as by King County data.

Watershed partners have worked together to conduct several planning efforts that identify threats and recommend solutions to these problems, including increased stewardship on private lands. Partners include Snohomish and King counties, the local cities in the Snoqualmie and Snohomish watersheds, environmental groups such as the Wild Fish Conservancy, the Stilly-Snohomish Task Force, and others. These partners have produced the 2005 Snohomish River Basin Salmon Conservation Plan (hereinafter referred to as “the Conservation Plan”), as well as many other technical documents and action plans for the Snoqualmie Watershed and these subbasins. The Conservation Plan has now been incorporated into the federal Puget Sound Chinook Recovery Plan, and has been reviewed and approved by the National Marine Fisheries Service.

Much of the Conservation Plan implementation to date has focused on habitat protection and restoration efforts on public lands, and along the mainstem Snoqualmie River on farms within the Agricultural Production District. Increased effort is now needed in the priority tributaries. The Patterson Creek and Raging River subbasins are particularly well suited at this time for the outreach approach described in this grant. Other subbasins in the Snoqualmie and nearby watersheds will be selected as control non-focus basins. This approach will allow for a comparison of long-term stewardship commitments between the focus and non focus basins. Selection of these control subbasins will be an early task in this project. Current candidates include the Tolt River and Harris and Cherry creeks.

### **Project Need**

Retaining and increasing healthy forest cover, both in watershed uplands and along riparian zones, is a fundamental aspect of sustaining ecological health and aquatic resources in a watershed. The Conservation Plan addresses the many impacts on hydrologic function, sediment transport processes, and in-stream habitat structure that result from rural residential development. The loss of forest cover is noted as one of the biggest threats to habitat in the watershed, and actions to address this loss are considered a high priority. Addressing these same land use changes and impacts is a priority in the Snoqualmie for water quality as well.

Scientific literature points to the importance of certain key areas within a watershed for maintaining overall watershed function, as well as the importance of establishing highly

functioning areas that are well-connected, with sufficient size, complexity, and edge habitat to provide buffering from other land uses. These key areas include riparian buffers, wetland complexes, and stream headwaters.

The Conservation Plan calls for working in rural residential areas throughout the watershed—including Patterson and Raging and their critical ecological process areas—to protect and restore forest cover by providing technical assistance, education, and incentive programs to willing landowners. This need is hardly unique to the Snoqualmie, and any successful approach that is established can be applied in rural and developing watersheds throughout Puget Sound. Not surprisingly, the Puget Sound Partnership plan (2006), and the EPA's strategic goals also prioritize providing stewardship technical assistance to private landowners.

Approximately 10,080 acres (85%) of the Patterson Creek subbasin are rurally zoned and privately owned. This includes 71 parcels totaling nearly 900 acres along Patterson Creek itself. The Raging River has a different character, with large blocks of land—especially in the headwaters—in public or large private ownership and managed for timber production. However, much of the mainstem corridor is privately owned (approximately 70 parcels totaling 320 acres, including most of the lower half of the stream corridor).

Numerous programs currently exist to promote stewardship among private landowners, but coordination among them can be greatly improved. The programs are the responsibility of multiple agencies, and many carry a mandate of responding to any community member's request for assistance, regardless of location. This leads to a demand-driven, first come-first served, approach to stewardship. This approach to stewardship and technical assistance can result in substantial environmental protection, but doesn't focus efforts where they will make the most difference. Contiguous blocks of land in well-stewarded condition provide a greater overall benefit than similarly-managed properties scattered across the landscape. In addition, current government agency approaches often lack a strong community sponsorship with community tools and networking, which is essential in creating a long term and broadly accepted commitment to environmental protection.

Past projects completed within King County (examples cited in the Project Plan below) and elsewhere suggest that a focused, intensive, comprehensive effort at a smaller scale can be more effective than a broad range of programs working individually. This project will implement a more focused community-based approach in the Patterson Creek and Raging River subbasins and compare the results of that approach with the more traditional (non-focused) agency-based approach in two other subbasins, in order to determine the efficacy and cost-effectiveness of significantly focusing stewardship and technical assistance efforts.

### **Project Plan—A Highly Focused Community-Based Stewardship Approach**

King County proposes creating a focused community-based stewardship outreach, education, and implementation effort by working with private landowners at the neighborhood and site scale. Landowners will be presented with a suite of stewardship options to protect and enhance natural resources on their property. This grant will fund a community-based stewardship coordination team to work with small community groups and with individual landowners, using a labor-intensive personalized approach to achieve contiguous well-stewarded landscapes. The grant will also support development of community-based stewardship communication tools and methods that will create a lasting commitment to stewardship actions.

Current targets for this approach include providing outreach to at least 250 landowners, with approximately 40% attending informational stewardship meetings or field trips. As a result of this effort, it is expected that at least 60 landowners owning 750 acres will commit to tangible stewardship actions (e.g., enrolling in long-term stewardship programs, conducting and implementing stewardship site plans and restoration projects).

While this approach has some similarities to a stream keeper or basin steward model that has been used in King County and elsewhere, this project takes the approach further in order to best forge these partnerships and the community's long-term commitments. This model is designed to have sponsorship from local community groups and will result in the stewardship team empowering the community with clear and well-established linkages to an exceptionally broad suite of stewardship tools and approaches. Given limitations in funding to implement watershed plans throughout Puget Sound, there is a need for a cost-effective approach to focusing stewardship technical assistance where environmental benefits will be greatest and communities develop landowner collaboration.

The stewardship tools to be delivered in coordination with this grant include:

- Public Benefit Rating System (PBRs), which offers reduced property taxes in exchange for protecting or restoring forest and aquatic resources beyond that required by regulations.
- Forest Stewardship and Farm Management Planning, including recommended farm and forest best management practices (BMPs) to protect and enhance resources while strengthening and expanding the rural farming and forest economies to reduce the threat of conversion.
- Rural Stewardship Planning, assistance developing and implementing site management plans to protect forest cover and riparian zones through low impact development (LID) and customized BMPs.
- Dedicated Restoration and BMP Implementation Funding, including restoration crew days and a BMP cost-share fund. This will provide tangible resources to landowners willing to undertake stewardship activities. These funds are expected to be leveraged by other available restoration funds from the County, the Snoqualmie Forum (see attached letter of commitment), and other sources.
- Development of community-based communication tools and methods that will effectively target landowners, provide continuing watershed education, and support continuing commitment for stewardship in these subbasins, resulting in greater stewardship capacity.
- Direct acquisition of property in fee simple or conservation easements, or removal or transfer of development rights (not directly funded by this grant, but possible via referral). King County's ecological lands acquisition program is closely affiliated with staff working on this project and properties may be identified through this project as suitable candidates for fee or development rights acquisition (willing seller only).

Close coordination and marketing of these multiple programs and financial resources can not only offer landowners a suite of options, but also can encourage them to move through a progression of increased stewardship commitments, from enrolling property in its current condition in a tax incentive program, to working in partnership with King County or King Conservation District (KCD) staff to develop a site plan, to implementing restoration.

This community sponsored high level of coordination among multiple programs, with customized program delivery and outreach materials is intended to create contiguous

reaches of protected and/or restored habitat. The goal is to build overall stewardship awareness and capacity, and community-based communication tools and methods to achieve a broader and more sustainable commitment to environmental stewardship in these subbasins.

The grant is poised for success, as it will significantly augment the existing King County, KCD, and other programs described above, all of which are designed to reduce land use conversion and maintain healthy forest cover and farming, and to assist individual landowners with making informed choices about environmentally protective ways to manage their properties. Staff working in these programs is experienced and have been successful in working with landowners to achieve these objectives on individual sites. This grant will allow for the synergy of multiple programs and staff working together with communities to create a greater environmental outcome in a focused geographic area.

The following are two examples that illustrate the potential of this approach:

1. *Waterways 2000 program in the nearby Bear Creek stream basin:* the Bear Creek corridor was targeted for acquisition, conservation easements, PBRS, and education between 1995 and 1997. A staff team worked closely with local community groups to promote the effort, which led to approximately 20% of all parcels along the Bear Creek mainstem being brought into County ownership and another 30% into enrollment in PBRS or other current use taxation programs.
2. *Grand Ridge PBRS outreach:* In 2006, County PBRS and basin stewardship staff, in cooperation with Partnership for Rural King County (PRKC, one of this grant's partners), conducted focused outreach to encourage landowners to commit to longer term protection of resources on their properties by enrolling in PBRS or other current use taxation programs. This led to 28 of 100 landowners who were contacted enrolling in the program, comprising over 120 acres that form a link between two existing, large tracts of forest in public ownership.

Compared to these examples, the proposed project includes several important enhancements: a broader suite of tools and approaches, new tools (e.g., Rural Stewardship Planning, LID techniques), a high degree of community sponsorship (PRKC and potentially others), development of community stewardship communication tools and methods, and a multi-agency approach (partnership with KCD and likely with Washington State University Extension).

### **Partnering**

A key aspect of the project approach is to recruit community leaders within each focus neighborhood/ stream reach to serve as local liaisons and advocates for stewardship. Development of community communication tools and methods will support those community leaders. This increases the level of interest and participation, and creates a stronger likelihood of increasing the overall stewardship ethic in the watershed, so the project's benefits and commitments outlast the grant.

Currently the following are formal project partners:

- *Partnership for Rural King County (PRKC)*, a community group focused on promoting environmental protection in this part of the watershed and in adjacent stream basins also within rural King County. PRKC has pledged 680 volunteer hours.

- King Conservation District (KCD), an independent agency that provides a variety of conservation-related programs in King County, including Farm Management Planning, which provides customized site planning on properties with agricultural uses. KCD has pledged 600 hours.
- Snoqualmie River Watershed Forum, a consortium of local governments supporting habitat and other water resource protection activities in the watershed. The Forum has pledged staff time to facilitate information exchange and to help develop outreach strategies and informational materials. The Forum Chair has also indicated this project is a strong candidate for Forum-sponsored grants that would augment the technical assistance/ cost share funding available to implement projects on private lands. The Forum has pledged 200 hours of staff time.

King County project staff anticipates working with a broad range of agencies and community groups active in the Snoqualmie on stewardship issues, as well as with local community organizations that would play a role at the more focused neighborhood level. Outreach to these groups will be an early component of the project. Preliminary discussions have been held with several of these other potential partners, including Washington State University Extension and Stewardship Partners.

### **Project Components**

The overall project plan is broken into five phases, with tasks and outcomes summarized in the table below.

| <b>PROJECT PHASE<br/>And Time Frame</b>                                                                            | <b>ACTIVITIES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>Phase I</u><br><i>Baseline monitoring, Development of basin specific approach</i><br><br><i>Jan – Aug. 2009</i> | A. Evaluate status of target subbasins with respect to lands currently enrolled in conservation programs, current land uses, parcel sizes, etc. in specific focus areas<br>B. Select non-focus subbasins for comparison and gather corresponding baseline data.<br>C. Analyze existing community network/communication tools for both target and non- target basins pre- project.<br>D. Create subbasin/ stream reach specific informational packets, displays, other outreach materials.<br>E. Develop community-based communication network.<br>F. Develop customized subbasin outreach strategy based on ecology, land uses, and demographics of subbasin (i.e., specific landowners and areas to focus, and most applicable stewardship programs for the subbasin).<br><br>Outputs: Map of parcels and database of parcel information. Baseline data results. Community communication network, such as website and email groups. Outreach strategy. |
| <u>Phase II</u><br><i>Focused landowner outreach/education</i><br><br><i>Sept 2009–Dec’10</i>                      | A. Recruit and train community/ neighborhood sponsors.<br>B. Schedule and hold meetings, workshops, and field trips for landowner education on stewardship program options.<br>C. During initial meetings, conduct focus group approach to determine starting level of interest and engagement in stewardship activities.<br>D. Conduct site visits to properties of interested landowners.<br>Outputs: Baseline of individuals’ stewardship engagement. Database of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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|                                                                                                                                               | contacts and landowners interested in next steps. Trained Community Stewards.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <p><u>Phase III</u><br/><i>Incentives and technical assistance implementation</i></p> <p><i>Jan 2010 – June 2011</i></p>                      | <p>A. Create individualized property stewardship plans where applicable in cooperation with landowners</p> <p>B. Enroll landowners in Open Space current use taxation programs: Public Benefit Rating System (PBRs), farm and agriculture, or Timberland.</p> <p>C. Offer other incentives, such as cost share and technical assistance for implementation of BMPs.</p> <p>D. Implement small projects (e.g., forest and riparian restoration), and best management practices, providing labor crews and native plant materials.</p> <p>Outputs: Landowners enrolled in programs, implementation of BMPs and restoration projects (see discussion in the following section)</p> |
| <p><u>Phase IV</u><br/><i>Post-project monitoring and evaluation</i></p> <p><i>July-Dec 2011</i></p>                                          | <p>A. Analysis of number of landowners and amount of property enrolled in programs and property retained and/or restored to forested conditions.</p> <p>B. Analysis of effectiveness of community stewardship networking in target vs. non-target basins.</p> <p>C. Convene post-project focus groups among participating communities to determine current stewardship engagement.</p> <p>D. Comparative analysis of focus vs. non-focus stewardship approaches</p> <p>Outputs: Focus group and analysis results.</p>                                                                                                                                                           |
| <p><u>Phase V</u><br/><i>Presentation of Status, Results</i><br/><i>July 2009-Dec 2011</i></p> <p><i>Final Report</i><br/><i>Dec 2011</i></p> | <p>A. Development of project website, status update materials</p> <p>B. Present at EPA meetings, and to Puget Sound WRIA and watershed planning groups</p> <p>C. Final report describing results of project and monitoring and evaluation, discussion of application to other watersheds</p> <p>Outputs: Final report, website, presentation materials</p>                                                                                                                                                                                                                                                                                                                      |

**Anticipated Outputs and Outcomes**

Specific outputs are identified for each phase in the previous section. The broad outputs associated with this project fall into the following two categories:

1. Tangible increases in overall stewardship awareness and commitments to action, resulting in increased property in protected and/or improved environmental conditions in the Patterson Creek and Raging River subbasins.
  - Develop a community-based stewardship communication network.
  - Contact and provide stewardship educational materials to 100% of mainstem riparian landowners in the focus basins.
  - Engage landowners further, and build awareness of the range of stewardship approaches available through landowners participating in community-based meetings/ workshops, “kitchen table” meetings, and customized field trips. Estimate 100 landowners.
  - Help landowners commit to tangible stewardship actions (e.g., enrollment in PBRs to formalize commitment to protecting resources, partnering with staff to

conduct and implement Rural, Farm, or Forest Plan, committing to restoration through cost share funding). Estimate 60 landowners, 750 acres.

- Landowners will continue to initiate participation in the stewardship project throughout all phases and after completion of this project.
- Long term improvement of forest health resulting from active management by landowners.
- Build capacity in the community and the local non-profit sector to engage in long-term rural stewardship activities.

We anticipate environmental outcomes resulting from increased stewardship awareness and actions, although they may not be measurable in the timeframe of this grant. For the Raging River basin, we expect an increase in forest cover and improvements in forest health, improved habitat for terrestrial species, and wetland protection. We also expect progress toward WRIA 7 goals in the Puget Sound Chinook Recovery Plan, including improvements in riparian habitat, off-channel habitat, edge habitat, and large wood availability, protection of direct chinook habitat (RM 0- RM 9.5), and protection of hydrologic and sediment processes.

For Patterson Creek, we expect long term increases in forest cover and forest health. We expect to make progress on other WRIA 7 goals called for in the Puget Sound Chinook Recovery Plan, including protection of wetlands, and restoration of off-channel habitat. Restoration of riparian areas, increased forest cover, and improved livestock management will help to stabilize the stream banks, reduce stream temperatures, and reduce contamination of the stream from metals, nutrients, and fecal coliform.

Due to the short time frame of this grant, water quality monitoring will not be included. However, King County expects long term water quality benefits in both basins from the implementation of this grant. The Snoqualmie Watershed Water Quality Synthesis Report (King County, 2009) lists protecting existing functional forests and focusing restoration along Patterson Creek as priority actions to improve water quality in this basin. Streamside plantings will shade streams, reducing water temperature and increasing dissolved oxygen. They will also help stabilize stream banks reducing sedimentation and nutrient loading. Fecal coliform levels should also improve with the implementation of best management practices for livestock and septic tanks.

Both of the focus basins have relatively low levels of impervious surface cover. Although there is significant forest cover in these basins, much of it requires active management such as thinning, noxious weed control and revegetation to improve forest health and continue the process of forest succession. Workshops targeting landowners with these properties will provide citizens with the tools to reverse the slow decline of these unhealthy forests and resulting water quality degradation.

In both basins, community-based communication networks will support landowner awareness and active stewardship, which will result in increased capacity for continued stewardship beyond the period of the grant.

2. Clear information regarding the efficacy of this focused, coordinated approach, compared to a more traditional and reactive approach of working with landowners to steward their properties. This information will result from a comparison of results in the

focus subbasins with those in other similar subbasins where these efforts are not focused through this grant.

- Analysis of the efficacy of this approach, as described in the Monitoring and Measuring section below. These results will be made available in several formats and delivered to a wide range of audiences, including decision makers in the Snoqualmie watershed and others, as described in the Peer Outreach and Information Transfer section.

The outcome of this information will be direction for county policy and work program planning and delivery. Depending on what is found, the county may decide to focus future efforts geographically, develop ongoing partnerships with other agencies and community groups, propose changes to Comprehensive Plan policies that describe the incentive programs, and/or other changes in its approach to property owner assistance.

Project outputs and outcomes are further detailed in the attached Logic Model.

### **Monitoring and Measuring**

Project monitoring will include an evaluation of project results compared to subbasins where stewardship actions are not specifically being focused. Many of the programs this grant will promote are available in other parts of the County, but landowners there are enrolled on a demand-driven, “first-come, first-served” basis. This project will evaluate the degree to which a highly focused, community-based approach, recruiting landowners in critical subbasins, can increase the overall level of stewardship commitments and actions to protect watershed functions.

The project team will conduct the following monitoring activities for both focus and non-focus basins:

- Compile baseline data of measurable actions related to protecting watershed health. This potentially includes the number of properties enrolled in Current Use Taxation, completed Farm Plans, Forestry plans, conservation easements, Rural Stewardship Plans, restoration sites. etc.
- Community communication networks, tools and methods will be analyzed pre- and post-project.
- During the intensive outreach phase, the project will track outputs including:
  - landowners contacted;
  - landowners participating in informational meetings and field trips; and
  - landowners committing to stewardship through participation in the various programs offered.
- Complete a comparative analysis between the target and non-targeted subbasins pre and post project.

The project includes one river and one stream subbasin with differing land use characteristics, allowing the approach to be evaluated for its application in these two different settings.

The measurable outcomes of this effort (in terms of community participation, land protected and land restored), will be used to inform decision-makers about the efficacy of focused stewardship and the individual tools, and the characteristics required for this

approach to be successful. If this focused approach is found to be effective, King County intends to modify its approach to stewardship service delivery. This approach and its component tools will also be applicable to other rural and developing watersheds throughout Puget Sound.

### **Environmental Results Past Performance**

King County has a strong record of delivering results on similar grants to this one. Examples include the following:

*Cottage Lake Phosphorus Reduction* (\$291,728 CWA Section 319 state pass-through). Shoreline buffer restoration on public and private lands, behavior change through education, social and environmental sampling. Performance benchmarks are integral to agreement deliverables. All performance benchmarks to date have been fully met. Post-project evaluation of behavioral change and trend analysis of phosphorus reduction due in 2009.

*Model Low Impact Development Strategies for Big Box Retail Stores* (\$96,002 EPA/AWPP grant). 2007 Low Impact Development (LID) reference document including a case study of Costco development practices, with recommendations jointly developed by Costco and King County. As a result, Costco has initiated several LID measures nationwide. EPA Region 10 is using knowledge gained to promote better site designs with Whole Foods and Kohls. EPA Region 10 enforcement staff is exploring recommended LID practices for enforcement and compliance settlements and negotiations.

*King County Shoreline Master Plan* (\$1.2 million NOAA/CZM state pass through). Assessed current land use, public access and ecological conditions with GIS landscape modeling tools to update 30-year old Shoreline Master Plan. Public and agency input included interactive web, award-winning videos and workshops. All grant deliverables were met to the satisfaction of Washington Department of Ecology. Plan will help prioritize long term shoreline restoration and public access. Other cities using these tools for information, data collection, and promoting county-wide consistency in shoreline management.

### **Peer Outreach and Information Transfer**

This project is widely applicable to other watershed organizations, governmental agencies, and tribal or local decision-makers. King County is the lead entity for watershed conservation planning in WRIAs 8 and 9, and a participant in conservation planning efforts for WRIAs 7 and 10. Project staff will share the results of the program through presentations given at the EPA watershed conferences as well as presentations given to the WRIAs within King County and other interested WRIA groups, local watershed groups, non-profits and regional groups such as Puget Sound Partnership. The project's final report will include project data, mapping, and analysis of results in focus subbasins as compared to non-focus subbasins. Materials will be made available online.

### **Programmatic Capability/Technical Experience**

This project will be managed by the Agriculture, Forestry and Incentives (AFI) group within King County WLRD. AFI is a regional leader in providing stewardship services, including many of the programs that this grant will employ. The grant will provide a significant

enhancement to these programs, by providing additional staffing to conduct focused outreach and implementation in Patterson Creek and the Raging River and developing community-based communication networks and support. The grant staff will include a rural stewardship planner, a forester, a grant reporting specialist and a financial officer. Each of these staff have academic degrees in environmental sciences and/or community outreach and public policy, a minimum of ten years of professional experience, and more than five years on average working within these stewardship programs. Several have been involved in the Grand Ridge focused PBRS outreach effort cited above in the Project Plan discussion. The grant team will also tap into the expertise of many additional staff with expertise in current use taxation, habitat restoration, monitoring, basin planning, flooding, agriculture and other disciplines.

### **Project management experience of Federally/state funded assistance agreements**

All grants are assigned a project manager responsible for coordinating/managing staff, partners and consultants, carrying out the scope of work, preparing programmatic reports, and ensuring grant agreement conditions are met. A Business and Finance Officer is also assigned to ensure budget compliance, track expenses and local match, and to authorize and approve grant-related expenses. The county budget office's federal compliance specialist coordinates federal reporting and assures grant compliance with federal regulations. The grant examples previously mentioned are meeting (or have met) or exceeded their required conditions.

The following examples illustrate how the above-cited projects have met grant requirements:

- *Cottage Lake*: Quarterly reports of scope of work progress validate payment requests. Final report to include, among other deliverables, phosphorus study (state approved SAP & accredited lab) and quantified behavioral changes of sampled watershed residents.
- *"Big Box" Project*: 84-page reference manual co-edited with Costco consultants for large retail store LID practices with extensively illustrated prescriptions also web-available (<http://your.kingcounty.gov/dnrp/library/2007/kcr1968.pdf>).
- *Shoreline Master Plan*: Planning document formally submitted to King County Council as reference for new SMA legislation.