Grants & Direct Awards by NEP Watershed Grant Program

The following list comprises the grants and direct awards issued by the NEP Watershed Program from February 2011 (program inception) through August 2016. The list is divided into categories as follows:

Theme	Category
Improving Land Use	Riparian Protection in Agricultural Landscapes
	Watershed-based Land Use Planning
	Transfer of Development Rights Programs
	Critical Areas Ordinance Updates
	Protecting Farmland and Improving Agricultural Riparian Management Practices
Improving Stormwater Management	Stormwater Regulation Updates & Stormwater Management Planning
	Stormwater Guidance, Training & Research
	Stormwater Remediation
	Stormwater Retrofit Planning
Strategies for Riparian and Floodplain Protection and Restoration	Floodplain Management/Floodplain & Riparian Restoration
	Improving Environmental Data – Stream Typing & Invasive Species

Riparian Protection in Agricultural Landscapes

King County Water and Land resources Division
Newaukum Creek Acquisition and Restoration Plan
Newaukum Creek is one of the two largest tributaries in the Green/Duwamish River Watershed. The stream flows through an agricultural area where very little riparian vegetation protects the channel, resulting in a significant lack of shade (primarily between River Mile 4 and 10). Stream temperatures in Newaukum Creek consistently exceed State standards for salmon spawning and incubation, and for juvenile rearing; salmon use is likely limited by these high temperatures (Ecology TMDL 2011). Fecal coliform levels routinely violate state standards. Fecal coliform was not part of the Newaukum Creek TMDL, but a fecal TMDL for this stream is under development. In addition, dissolved oxygen levels periodically violate state standards.
Partner organizations: American Farmland Trust, King Conservation District, and the Green River Coalition

King County Water and Land Resources Division
Snoqualmie Valley APD Riparian Restoration and Ag Partnership Building
King County (KC), in partnership with the King Conservation District (KCD), the United States Forest Service (USFS) and with stakeholders, will work to create riparian restoration opportunities and identify willing landowners in the mainstem Snoqualmie River (Fall City to Carnation) and two adjacent tributaries. The planning and outreach process will build upon numerous existing partnerships underway in the Snoqualmie Valley Agricultural Production District (SVAPD) to achieve increases in ecosystem health for fish, while strengthening agricultural sustainability through related actions.
Historic land conversion degraded most riparian areas in the SVAPD; increasing healthy buffers in the SVAPD is critical for both salmon recovery and water quality.
Partner Organizations: King Conservation District, US Forest Service

Mason Conservation District

Protection and Restoration of Skokomish River Valley Riparian Areas

This project primarily focuses on targeted outreach to landowners in a high priority reach of the Skokomish River identified by the US Army Corps of Engineers through a General Investigation (GI). Outreach efforts will lead to development of a reach scale plan to acquire property in support of five large scale riparian/floodplain restoration actions developed through the GI. The plan will also explore options for additional riparian restoration actions not included in the GI. This project proposes to develop a reach scale plan to acquire real estate necessary to support five large scale habitat restoration projects in the Skokomish River Valley.

Partner Organizations: US Army Corps of Engineers, Mason County, Skokomish Tribe

Nisqually Land Trust

Protecting Riparian Habitat Along The Middle And Upper Nisqually River

This project will identify and pursue next steps in protecting and restoring riparian and floodplain habitats along the Middle and Upper Nisqually River, downstream of the LaGrande dam. The Nisqually Land Trust will update and expand the existing Nisqually Shoreline Assessment. Riparian protection and restoration opportunities will be prioritized and the Land Trust will work with partners and willing shoreline landowners to implement high priority projects.

Partner organizations: South Puget Sound Salmon Enhancement Group, Nisqually Indian Tribe, Washington Department of Fish and Wildlife, US Fish and Wildlife Service

Nooksack Indian Tribe

Riparian Protection and Restoration along the South Fork Nooksack River

This project focuses on evaluating riparian protection and restoration feasibility along the SFNR riparian zone in the agricultural areas. The proposal acts on the temperature TMDL and the EPA climate change pilot research project, an existing watershed planning framework, and existing grant funding that address all of the SFNR watershed. This funding will allow focus specifically on the agricultural areas immediately adjacent to and within the riparian zone of the SFNR.

Partner organizations: Evergreen Land Trust Association, Whatcom County Planning and Development Services, Washington Water Trust, Lummi Nation, Western Washington University

North Olympic Salmon Coalition

Chimacum Creek Protection and Restoration Project

The Chimacum Creek Protection and Restoration Project is a collaborative, multi-partner project that will develop an outreach plan for agricultural landowners within the Chimacum Valley, a Riparian and Beaver Management Plan and a Chimacum Creek Protection and Restoration Plan with the goal of improving water quality and salmonid habitat through the implementation of habitat restoration and protection projects in riparian corridors on agricultural lands.

Partner Organizations: Jefferson Land Trust, Washington State University, Jefferson County Conservation District, Jefferson County Noxious Weed Board

Skagit Land Trust

Conservation Easements and Protection in Samish River Riparian Zones

Skagit Land Trust and the Samish Indian Nation will: 1) conduct an assessment to identify focus areas and the best opportunities for riparian protection on ag lands within priority reaches in the Samish basin in order to improve water quality and salmon habitat; 2) conduct landowner outreach and project feasibility to document easement / acquisition opportunities as well as restoration needs, and 3) develop proposals for acquiring conservation easements, land acquisitions and/or restoration.

Partner Organizations: Samish Indian Nation

Snohomish Conservation District
Integrated riparian stewardship in the Stillaguamish and Snohomish Basins
Snohomish Conservation District will collaborate with partners to develop a model riparian stewardship strategy for priority sub-basins and floodplains in the Stillaguamish and Snohomish watersheds. This effort will integrate assessment work already completed with additional riparian prioritization tools to identify parcel-specific targets for riparian protection and restoration.
Partner Organizations: NOAA, Ecology, Snohomish County, Forterra and Adopt-a-Stream Foundation

Watershed-based Land Use Planning

City of Bonney Lake: $250,000
Bonney Lake Coordinated Watershed Protection and Land Use Plan
Bonney Lake is proposing an integrated approach to watershed protection and land use planning. The Fennel Creek basin is completely contained in the city and has nearly complete oversight of redevelopment and land use. Basin-specific water resource protection standards will be applied; adaptive management can be directly linked between land use and resource protection measures; and the City can evaluate the suite of measures to minimize impacts and correct existing problems.

City of Duvall: $207,570
Watershed-based land use planning
Duvall is assessing watershed conditions to develop and implement land use management goals and objectives specific to each watershed in the city. The project will result in:

- A new urban growth area land-use plan.
- Land use designations and policy updates to Duvall's Comprehensive Plan.
- Updates to the development and sensitive areas regulations in Duvall's Municipal Code.
- New stormwater strategies plan for selected watersheds identifying potential actions and incorporating low impact development strategies and land use approaches.

The city hopes to improve long-term outcomes that both foster economic development and sustain and restore watershed processes and natural resources.
Partner organization: King County Snoqualmie Watershed Forum.

Hood Canal Coordinating Council: $300,000
Integrated watershed management plan using Puget Sound Watershed Characterization Project
Complete an integrated watershed management plan using the Puget Sound Watershed Characterization that will guide the development of an in-lieu-fee mitigation program in the Hood Canal region.

King County Noxious Weed Control Program: $248,130
Snoqualmie Headwaters Riparian Restoration and Stewardship 2015
The partners on this grant will work to comprehensively and sustainably reduce the impact of knotweed in riparian ecosystems in the headwaters of the Snoqualmie River. Knotweed, if poorly controlled, is a major disrupter of riparian health, thereby threatening salmonid habitat in Puget Sound.
Partner Organizations: *Snoqualmie Tribe and mountains to Sound Greenway Trust*

Kitsap County: $134,814
Watershed based land-use planning
Kitsap County will prepare land-use recommendations for the county's 2016 comprehensive plan update, based on an analysis through the Puget Sound Watershed Characterization project. The state

departments of Ecology and Fish & Wildlife and Puget Sound Partnership used an EPA grant to develop this regional-scale tool which helps highlight the most important areas to protect and restore, and those most suitable for development throughout the Puget Sound region.

Kitsap County: $270,000
Sustaining ecological processes, working forests on lands at risk of development
Grant will be used to establish a community partnership to permanently protect working forest lands that provide key ecosystem benefits. This partnership will work to minimize the conversion of forest lands to residential development by applying a variety of land conservation tools.
Partner organizations: Olympic Property Group, Port Gamble S'Klallam Tribe, Suquamish Tribe, WSU Extension, Great Peninsula Conservancy, and Forterra.

Nisqually Indian Tribe: $170,000
Upper Nisqually ecosystem services demonstration
The Tribe and its partners will establish a framework for marketing the environmental and economic benefits that intact lands provide such as habitat protection and reducing surface water runoff. This is intended to provide incentives to landowners to protect and restore forested lands. Potential buyers could be local salmon enhancement groups and utilities. The project focuses on the Mashel River and Ohop Creek in the upper reaches of the Nisqually watershed near Eatonville.
Partner organizations: Nisqually River Foundation, Nisqually Land Trust, Northwest Natural Resource Group, Earth Economics, Washington State University, and Washington Department of Natural Resources

Nisqually River Foundation: $181,558.75
Building Momentum for Ecosystem Service-Based Incentives
The main purposes of this project are to: 1) expand ecosystem service payment opportunities beyond our first transaction to improve forest management on existing ownerships; and 2) advance the development of the Nisqually Community Forest to become a significant forest landowner in the watershed for long-term sustainability of ecosystem service provision. This advancement includes development of acquisition financing strategies and a management plan for the first properties acquired.
Partner Organizations: Nisqually River council Member Organizations

North Olympic Peninsula Resource Conservation & Development Council: $152,078 Planning for Climate Change on the North Olympic Peninsula
The NOPRC&D will conduct a detailed assessment of climate related vulnerabilities and develop a climate adaptation plan for the North Olympic Peninsula. This work will focus on options for reducing risks from climate change by improving the resiliency of the local ecosystems in watersheds of Jefferson and Clallam County. The process will engage stakeholders and planning agencies in generating data, priorities and strategies that will inform the creation of the adaptation plan. The plan will inform the comprehensive and strategic planning processes of the cities, counties, tribes, Public Utility Districts and ports within the North Olympic Peninsula.
Partner Organizations: Adaptation International, Washington Sea Grant.

Pierce County: $150,000
Swan Creek basin watershed characterization and action plan (Phase 1)
To improve degraded water quality and habitat in the Swan Creek watershed, Pierce County will complete a characterization of land use, water quality, and stream flows in the basin to identify and prioritize specific sites for action. Phase 1 will result in an action plan for the watershed. Future phases (not currently funded) will address education, outreach, and implementation of the action plan.
Partner organizations: Pierce Conservation District, City of Tacoma Park District, Puyallup Tribe of

Indians, South Puget Sound Salmon Enhancement Group.

City of Redmond: $214,911
Bear Creek Watershed Restoration and Protection Plan
This project is a multijurisdictional effort to evaluate existing conditions in Bear Creek, estimate future conditions with modeling, and select strategies to inform an implementation plan that addresses existing and predicted future ecological conditions so that Bear Creek is restored and protected. Bear Creek is important to the recovery of salmon is WRIA 8 and represents an opportunity where local governments can collaboratively achieve ecological lift in a developed watershed.
Partner Organizations: King County, Snohomish County, City of Woodinville, City of Redmond, and Washington Department of Transportation.

Suquamish Tribe:$149,600
Blackjack Creek Watershed Assessment and Protection and Restoration Plan
Purpose is to conduct a watershed assessment that identifies and prioritizes strategies/actions to protect/restore ecosystem processes, structures, and functions in the Blackjack Watershed. We will apply a watershed-based approach to identify Ecosystem Components and Key Ecological Attributes; Assess pressures/stressors; Develop strategies/actions to protect/restore ecosystems; and Establish goals for future conditions. The project implements Near-Term Action WC12 in the 2014-15 Action Agenda.
Partner Organizations: City of Port Orchard and Kitsap County

City of Tacoma: $250,000
Tacoma Mall Regional Growth Center Subarea Plan and EIS
The City of Tacoma will develop a subarea plan and environmental impact statement that will identify the potential impacts of projected growth and development in the Tacoma Mall area, an urban growth center. These documents will identify mitigation options for adverse environmental impacts. The Tacoma Mall Regional Growth Center represents a model opportunity for the redevelopment of an existing auto-oriented, low-density mall to become a compact and complete community center that supports local, regional and watershed scale best management practices. Focusing new growth in appropriate urban centers is necessary to support regional salmon and watershed recovery efforts.
Partner Organizations: Pierce County, Pierce Transit, Metro Parks Tacoma, Forterra, Tacoma-Pierce County Health Department, South Tacoma Neighborhood Council, Chamber of Commerce, and Simon Corporation (Tacoma Mall)

Thurston County: $247,573
Deschutes Watershed Land Use Analysis
Thurston County will coordinate with the cities of Olympia, Rainier, and Tumwater and the Squaxin Island Tribe to develop and implement changes to land use and development regulations in the Deschutes River watershed. This project will take a proactive watershed-based approach to reducing nutrient loads by identifying areas that are at highest risk from future development and areas that can benefit most from protection and restoration of ecological functions. This work will in modifying current development regulations and zoning as well as new requirements and incentives for implementing low- impact development where it is most appropriate. Anticipated outcomes include improved water quality in the Deschutes River, as well as long-term protection of sensitive lands and ecological functions.
Partner Organization: Thurston Regional Planning Council.

Thurston Regional Planning Council: $249,996.00
Watershed-based Approach to Climate Change Resiliency in Thurston County
A diverse group of partners will develop a Climate Adaptation Plan using a watershed-based approach for

Thurston County's Puget Sound watersheds. The plan will identify clear adaptation strategies to address climate change vulnerabilities and risks to the natural and built environments. The strategies will be integrated into Thurston County's Comprehensive Plan update process and help inform other local planning efforts, including the shoreline master program and hazards mitigation plan.

Partner Organizations: TRPC member organizations, Earth Economics, Nisqually River Council

Washington Department of Commerce: $480,000 Integrating land use permitting data

This work is being conducted by Research Services at Commerce and is looking at how best to use, synthesize and display already available data to monitor development patterns. Commerce will expand previous pilot-scale efforts with 3 counties to include all Puget Sound jurisdictions, and develop recommendations on using these data and integrating the Watershed Characterization data to improve land use planning decisions. Commerce will also make recommendations on establishing and funding a system for long-term data acquisition, storage and maintenance.

Washington Department of Commerce: $224,000 Building regional alliances

Commerce is facilitating regional planning by convening meetings, workshops and/or other processes. The purpose is to bring together local planning and management entities and facilitate development of regional planning forums, tools and products. This effort will help guide state and local investments in ecosystem protection, land use, transportation and housing. The focus of the work has been on the Minter Creek watershed in Kitsap and Pierce counties, and on WRIA 9 in King County to develop incentives for increasing urban density through infill.

Washington Department of Ecology: $132,000 Channel Migration Zone Assessments

Ecology will review and evaluate current CMZ assessment methods and evaluate and verify the planning level CMZ delineation methodology. This will result in improving planning and detailed level CMZ methodologies based on lessons learned. The project will identify the apparent conditions that affect channel migration to enable rapid assessment of CMZ areas. It will include identifying non-mapped SMP streams without channel migration maps that have the potential to migrate, and developing CMZ scientific documents, technical guidance and methods manual.

Washington Department of Fish & Wildlife: $373,255 Using high resolution aerial photos to map land cover change, Phase 1 and 2

This work will develop a prototypical status and trend monitoring program using aerial imagery suitable to measure implementation success and effectiveness of Watershed Characterization and GMA critical areas. WDFW will conduct an analysis of vegetation changes in riparian management zones for all Puget Sound marine shorelines and shorelines of major rivers and streams using high-resolution imagery from 2006 to 2011. This work will provide information on the utility of medium and high resolution remote sensing products for urban landscape planning and analyses.

Washington Department of Natural Resources: $200,000 Watershed services market demonstration projects

The state Department of Natural Resources will initiate demonstration projects in two watersheds to establish markets where forest landowners receive money to protect and maintain their lands. As the buyers in these markets, downstream beneficiaries purchase watershed services such as surface water runoff control and salmon habitat enhancement. The project will establish partnerships, identify priority forest lands, develop measures for valuing specific watershed services, identify potential buyers and

sellers, and develop an infrastructure for market transactions.
Partner organizations: U.S. Forest Service, Washington Department of Health, Nisqually Tribe, Snohomish County, Nisqually Land Trust, Northwest Natural Resources Group and Willamette Partnership

Transfer of Development Rights Programs

King County: $200,000
Integrating market-based tools to protect and restore land
Project will establish an integrated transfer of development rights program to help protect agricultural and working forest lands while restoring ecologically important lands using mitigation tools such as wetland mitigation banks and in-lieu fees.
Partner organizations: City of Kirkland and Forterra

City of Mountlake Terrace: $37,500
Implementation of regional program promoting urban redevelopment and watershed protection
As part of its ongoing efforts to plan responsibly and effectively for future growth, Mountlake Terrace will evaluate how an LCLIP could be implemented in its Town Center and Freeway/Tourist districts.
Partner organization: Snohomish County.

City of Shoreline: $42,060
Implementation of Regional Program Promoting Urban Redevelopment and Watershed Protection
Shoreline will continue its efforts to promote urban redevelopment in its downtown area and conserve farms and working forests outside the city by studying how a new tool could be implemented in its Light Rail Subarea and Commercial Core. This is a regional-scale tool known as the Landscape Conservation and Local Infrastructure Program (LCLIP) that authorizes new financing for central Puget Sound cities to invest in infrastructure to support growth and redevelopment. A central goal of LCLIP is to reduce conversion pressure on county farm and forest lands by decreasing urban development costs and expanding infrastructure capacity. The transfer of growth potential from county resource lands to Shoreline's downtown will reduce impacts to critical watersheds in the Puget Sound basin.
Partner organization: King County.

Skagit County: $200,068
Establish transfer of development rights program
This project will establish a "transfer of development rights" program in Skagit County — and focus on analyzing specific opportunities for the city of Burlington to stimulate commercial redevelopment. Under a transfer of development rights program, private and public developers purchase development rights from farmers or forest landowners so their land remains undeveloped. These development rights can then be used in urban areas better suited to accommodate additional growth. Transfer of development rights programs help save critical farms and forests, and support local economies.
Partner organizations: City of Burlington and Forterra

Snohomish County: $367,000
Managing land use
Snohomish County will increase its urban densities by establishing a transfer of development rights program and enhancing its transit corridors. The county will also use the grant to help integrate environmental information into their comprehensive plan and development regulations.

City of Tacoma: $44,500

Urban redevelopment and watershed protection through land conservation program

Tacoma will continue its efforts to promote urban redevelopment in its downtown area and conserve farm and forest resource land outside the city, including a study of how a new tool could be implemented. The Landscape Conservation and Local Infrastructure Program (LCLIP) is a regional-scale tool authorizing new financing for central Puget Sound cities to invest in infrastructure to support growth and redevelopment. A central goal of LCLIP is to reduce conversion pressure on county farm and forest lands by decreasing urban development costs and expanding infrastructure capacity. The transfer of growth potential from county resource lands to Tacoma's downtown will reduce storm water impacts to critical watershed health in the Puget Sound basin.

Partner organization: Pierce County.

City of Tukwila: $42,060

Implementation of Regional Program Promoting Urban Redevelopment and Watershed Protection

Tukwila will continue its efforts to promote urban redevelopment in its downtown area and conserve farms and working forests outside the city by studying how a new tool could be implemented in its regionally designated Urban Center and in the Tukwila International Boulevard (TIB) Corridor area. This is a regional-scale tool, known as the Landscape Conservation and Local Infrastructure Program (LCLIP) that authorizes new financing for central Puget Sound cities to invest in infrastructure to support growth and redevelopment. A central goal of LCLIP is to reduce conversion pressure on county farm and forest lands by decreasing urban development costs and expanding infrastructure capacity. The transfer of growth potential from county resource lands to Tukwila's downtown will reduce impacts to critical watersheds in the Puget Sound basin.

Partner organization: King County.

Critical Areas Ordinance Updates

Island County: $250,000

Watershed-based analysis; update fish and wildlife habitat conservation area policies and regulations

Island County will update the fish and wildlife habitat conservation area component of its critical areas ordinance including:

- Collect data on habitat conditions.
- Review and update best available science regarding fish and wildlife habitat conservation areas.
- Develop updated policies and regulations.
- Present recommendations to county commissioners for potential adoption.

Island County: $250,000

Review of Island County Wetland & Critical Areas Protection

The County will review and update their Comprehensive Plan and development regulations. This work will include a multidisciplinary review of current wetland and critical areas protections. The County will integrate land use, critical area protection, water quality, and habitat restoration programs into a single cohesive policy using a process that considers development activities and critical area impacts on a broad, landscape scale. This is expected to improve watershed management and land use decisions and minimize future impacts to ecosystems in the County.

Protecting Farmland and Improving Agricultural Riparian Management Practices

King Conservation District: $153,402
Snoqualmie Valley grown and active: 'When cows meet clams'
Grant establishes an agricultural and forestry production, marketing, and tourism training program to help keep working farms and forests in the Snoqualmie Valley. Program includes providing training to expand the number of working farms and forests practicing sustainable approaches while raising awareness about the important role working lands have on quality of life.
Partner organizations: Cascade Harvest Coalition, Northwest Natural Resource Group, and Calyx Sustainable Tourism

Thurston Conservation District: $187,450
Addressing agricultural land conversion and barriers to direct markets
This project will link farmers looking for land with land owners seeking to protect their lands from development using various land planning tools including open space agriculture tax enrollment, conservation easements, and the transfer and purchase of development rights. The group will also provide farmers training for business planning and accessing capitol and local markets.
Partner organizations: Capitol Land Trust, Cascade Harvest Coalition, Enterprise for Equity, South of the Sound Community Farmland Trust, and The Evergreen State College

Whatcom County: $358,471
Enhancing agriculture and water quality in Nooksack River basin
Whatcom County and its partners will establish a system that will provide incentives to landowners to restore agricultural lands in northern Whatcom County by marketing the services that intact streams and riparian areas provide such as protecting habitat and improving water quality. The project will identify high priority areas to protect and restore, and explore options for protecting these properties through the transfer of development rights and establishing a mitigation program, such as in-lieu-fee. These programs will be tested in a pilot watershed.
Partner organizations: Whatcom Farm Friends, Whatcom Conservation District, and Washington Department of Fish & Wildlife

Stormwater Regulation Updates & Stormwater Management Planning

City of Arlington: $76,000
Arlington code updates and stormwater geo-spatial characterization
Arlington will update its low impact development policies and regulations including:
- Land use codes
- Engineering standards
- Comprehensive plan elements

This work supports the comprehensive plan updates Arlington must complete by 2016 under the state Growth Management Act. The project will include developing a citywide map showing the preferred stormwater management strategies for each sub-basin in Arlington's watersheds.

City of Duvall: $199,674
City of Duvall Stormwater Element Update and Retrofit Design Project
Update the City of Duvall Stormwater Comprehensive Plan Element and complete a minimum of five Conceptual Retrofit Design Reports. This update will include evaluating existing conditions and analyzing future conditions to develop sub-basin specific stormwater objectives, projects, and financing options to

improve overall stormwater quantity/quality for impacted basins in the watershed.
Partner Organizations: Snoqualmie Watershed Forum

King County: $160,000
Low Impact Development updates for county surface water design manual and codes
King County will update its surface water design manual, which sets required standards for designing stormwater features, and revise its development-related codes and standards to support the wider use of low impact development as the preferred approach to stormwater control. The project will include stakeholder review of draft manual and code changes which will be submitted to the King County Council for legislative action.
Partner organizations: Muckleshoot Tribe, Snoqualmie Tribe, Master Builders Association, and cities of Burien, Des Moines, Duvall, Issaquah, Kenmore, Kent, Kirkland, Lake Forest Park, Maple Valley, Newcastle, Pacific, Renton, Sammamish, SeaTac, and Tukwila Park.

King County: $135,469
Strategies for Protecting & Restoring Small Streams Using B-IBI
This work will include synthesizing data from the Puget Sound Stream Benthos database, developing a restoration decision framework for restoring “Fair” drainages to “Good”, identification of restoration sites, identification of "excellent" drainages needing protection, development of drainage basin protection and restoration strategies, and coordination among stakeholders.

City of Mukilteo: $75,000
Regional master plan for surface water runoff
The city will develop a regional watershed-based stormwater plan to address increased levels of development, land clearing and impervious surfaces. The plan will enhance the environmental benefits of area watersheds by identifying and prioritizing low impact development opportunities. The city will also use the grant to advance off-site stream and wetland mitigation efforts that will help offset the environmental impacts of development on water quality, water supplies and habitat.
Partner organizations: City of Everett and Mukilteo School District

Snohomish County: $250,000
Snohomish County stormwater regulation revisions
Snohomish County will revise its drainage and land disturbing activity codes, engineering standards, and technical drainage manual to require use of low impact development principles and best management practices for land development projects. This is expected to reduce surface water runoff and associated pollution.

Stormwater Guidance, Training & Research

Herrera: $120,000
Develop Operations & Maintenance Guidance & Training for Low Impact Development (LID) Facilities and Practices
This project will result in a guidance manual and training program for the operation and maintenance of LID facilities. Information will include required costs, equipment, staffing, and skills to perform O&M on specific LID BMPs that will be useful to local jurisdictions in planning efforts for meeting the new LID requirements in the draft Phase I and II NPDES Municipal Stormwater permits.

Clear Creek Solutions: $160,000
Develop Low Impact Development Module for Western Washington Hydrology Model
This project will result in improvements to the Western Washington Hydrology Model that include new LID features, updated precipitation data, and other improvements. This model is used by engineers and planners throughout western Washington in planning for stormwater from new development, in planning for stormwater retrofits, and many other uses.

Washington State University: $480,584
Putting science to work to address surface water runoff
This grant will support extensive testing of bioretention methods and permeable pavement at the Washington State University Research & Extension Center in Puyallup. These results will be used to develop scientifically-defensible performance and design guidelines for low impact development techniques that will be disseminated and applied on-the-ground with partners in four different watersheds across Puget Sound.
Partner organizations: Port of Tacoma, City of Bellingham, City of Puyallup, and Kitsap County

Stormwater Remediation

Town of Coupeville: $495,523
Innovative Penn Cove surface water runoff control project
Design an innovative constructed wetland facility that will collect, clean and cool surface water runoff before the water is discharged into Penn Cove. The project will reduce the harmful effects of human activities on water quality and habitat in Penn Cove, which has a robust commercial shellfish industry.
Partner organizations: University of Washington, Island County Marine Resources Committee, Island County Local Integrating Organization, and SvR Design

Whidbey Island Conservation District: $120,000
Ebey's Prairie stormwater remediation project
The Conservation District and its partners will use a watershed-based approach to reduce contaminants that enter the drainage system in Ebey's Prairie by tackling them at their sources and improving water treatment facilities. The project will launch a targeted outreach and education effort to raise awareness regarding the extent and causes of water quality degradation throughout the watershed. The grant will also be used to provide technical assistance to landowners, including using best management practices and restoring natural filtration functions within the drainage system. The project will produce a design to improve contaminant removal near the outlet of the drainage system.
Partner organizations: Island County, Island County Marine Resources Committee, City of Coupeville, The Nature Conservancy and Trust Board of Ebey's Landing National Historical Reserve

Stormwater Retrofit Planning

City of Edmonds: $188,772
Perrinville Creek stormwater flow reduction study and pre-design project
Edmonds will assess conditions in the Perrinville Creek watershed to develop a plan to reduce stormwater runoff to the creek which reaches Puget Sound at Brown's Bay. The project is designed to:
- Lower erosion and sediments now adversely affecting aquatic habitat in the watershed.
- Incorporate low impact development and other stormwater best management practices.

The city will conduct a watershed analysis to help identify and design potential retrofit projects and develop a hydrologic model to characterize existing conditions and assess their likely performance.
Partner organization: City of Lynnwood

City of Friday Harbor: $66,879
Spring Street Stormwater Retrofit Design

The Town of Friday Harbor will assess stormwater treatment strategies for the main downtown sub-basin and stormwater outfall, and develop a design for the selected water quality treatment facility. This area in downtown Friday Harbor is one of the most densely populated areas of San Juan County, and has the highest concentration of impervious surface coverage. The Town was built before stormwater management controls were required, so much of the stormwater runoff from the urban area is currently discharged untreated into Friday Harbor. Future construction of this facility will significantly reduce the pollutants from stormwater runoff entering the harbor at this location.

Partner organization: San Juan Island Conservation District.

Hood Canal Coordinating Council: $250,000 Hood
Canal regional stormwater retrofit plan

The council will identify, prioritize, and plan for retrofits of stormwater infrastructure in locations most important to protect and restore to limit surface water runoff and related pollution, and boost rainwater infiltration in the Hood Canal watershed.

Member organizations: Jefferson, Kitsap and Mason counties, Port Gamble S'Klallam and Skokomish tribes

King County: $250,000
Evans Creek tributary 108 basin-wide retrofit siting

King County will test a systematic design approach within tributary 108 of Evans Creek, a small suburban stream basin in the Bear-Evans Creek watershed where environmental health has been degraded due to development but not to the point where restoration is improbable. Work will include:

- Identifying a retrofit blueprint for the entire stream basin, including planning costs that can be used to guide future capital investments.
- Producing pre-design reports for three or more retrofit projects verifying the costs, benefits and readiness of each project.
- Sharing results and lessons learned from the new systematic design approach.
- Soliciting feedback for future retrofit planning.

King County: $235,000
Miller-Walker basin stormwater retrofit planning

This multi-jurisdictional planning effort is designed to improve stream flows and aquatic conditions in the Miller and Walker creek basins using a watershed approach for stormwater management. The planning effort will be done using hydrologic modeling of the watershed in conjunction with an effort already under way to model stream flows and develop a watershed restoration plan. Priority areas for stormwater retrofit projects will be identified using:

- Modeling results.
- A feasibility analysis for low impact development and conventional stormwater retrofits.
- Analysis of capacity for improving stream flows and supporting stream beneficial uses.

At least three sites will be selected and pre-designed for new stormwater retrofit facilities.

Partner organizations: Cities of Burien, Normandy Park and SeaTac, Port of Seattle.

King County Department of Transportation: $249,965)
Road Runoff Water Quality Hot Spot Identification and Prioritization System

This project will develop a systematic, watershed-based approach to prioritizing road-specific, stormwater retrofit projects that have the highest potential for reducing pollutant loading (hot spots).

Using existing data and strategies, King County will perform an analysis of the Little Soos Creek sub-basin to establish associations between road infrastructure and water quality. The County will use the results to create a methodology for identifying and prioritizing water quality hot spots in existing road infrastructure. The method will then be applied to the remainder of unincorporated, suburban/rural WRIA 9. If it proves effective, the method could be applied in the future to all of unincorporated, suburban/rural King County. Improving and updating stormwater controls can significantly contribute to improved water quality and biological health in a watershed.

City of Kirkland: $250,000
Totem Lake/Juanita Creek basin stormwater retrofit conceptual design
This project will build upon work previously completed for the Juanita Creek Basin that developed ecological watershed-based goals for stormwater retrofitting and modeled various scenarios against those goals. Kirkland will use that model to develop plans and cost estimates for retrofit facilities that will best meet those goals for the Totem Lake-Juanita Creek watershed.
Partner organizations: King County, Urban Land Institute, King Conservation District

Kitsap County: $250,000 Green
Street Plan
Kitsap County will develop strategies to reduce stormwater runoff and improve water quality within county rights of way using low impact development and green stormwater infrastructure techniques. The plan will provide a method to identify, coordinate and prioritize these projects. As part of the plan, the county will create standards and prototypes for green parking-lot designs and typical green street sites, including design elements and cost estimates.

City of Mukilteo: $250,000
Watershed-based stormwater retrofit plan and pre-design
Mukilteo recently completed a watershed-based stormwater plan that provides a framework for selecting and prioritizing stormwater retrofit strategies. The city will build on this work to plan site-specific retrofit projects and develop conceptual designs. This includes:
- Data collection
- Stormwater catchment analysis
- Geotechnical investigation
- Retrofit project selection and prioritization
- Pre-design and cost estimates

Three retrofit projects will be selected for a pre-design process.
Partner organizations: Snohomish County Airport Paine Field, Snohomish County Surface Water Management Division

Puget Sound Regional Council : $125,000
Develop Project List for Stormwater Retrofits
This award will fund phase 1 of a program to develop a prioritized stormwater retrofit project list for the four most urban counties in the Puget Sound area. The project will focus on prioritizing retrofit projects related to transportation systems in Snohomish, King, Pierce, and Kitsap counties. Phase 1 will produce a work program for this effort, a background report that explores the major issues related to transportation stormwater impacts, and a scope of work for the entire program.

City of Redmond: $250,000
Tosh Creek watershed management plan implementation and pre-design
This project will implement Redmond's draft watershed management plan to help preserve, protect and restore watersheds within the city. The funding will help Redmond identify the quantity and location of

stormwater retrofit projects to restore stream flows and improve water quality in Tosh Creek. The city will develop models to help evaluate the best locations for stormwater retrofit projects. Each proposed project will be further refined to produce pre-design plans, including cost estimates.

City of Redmond: $250,000
Monticello Creek Watershed Wide Retrofit Siting

The City will identify the type and quantity of stormwater retrofits needed to restore healthy hydrology and water quality in Monticello Creek. This project will include inspection of existing conveyance and stormwater facilities and analysis of in-stream and buffer areas to document the watershed's needs. Once stormwater retrofit project types and locations are planned, the City will select at least three of the proposed projects and produce pre-design plan sets, descriptions, and cost estimates suitable for incorporation into the City's 2016 budgeting process. Monticello Creek watershed includes areas of Redmond and unincorporated King County, creating an opportunity to demonstrate the value of local collaboration across political boundaries in planning for watershed-based restoration and retrofit.
Partner organization: King County.

Thurston County: $222,347
Woodard Creek basin stormwater retrofit study

The study will develop a list of potential retrofit projects to improve stream flows and water quality in the Woodard Creek watershed and in Henderson Inlet. In order to identify and screen 15 to 20 feasible stormwater retrofit projects, the county will use:

- Stormwater infrastructure mapping
- Recent aerial photography
- Topography and light detection and ranging (LIDAR) data
- Field verification processes
- Hydrologic modeling
- Public outreach

This process will be used to identify five projects for pre-design planning which will be added to the county's stormwater utilities plan to be built as soon as other funding is available.

Whatcom County: $94,000
Birch Bay priority stormwater retrofit projects pre-design

Whatcom County will use the funding to complete an engineering analysis for stormwater retrofit projects in the Birch Bay watershed. This analysis will help identify opportunities to address stormwater problems associated with runoff from existing and planned future development in the Birch Bay urban growth area. The county will develop pre-design reports for four stormwater retrofit projects to improve water quality and reduce fecal coliform levels from stormwater outfalls that discharge to Birch Bay.
Partner organization: Birch Bay Watershed and Aquatic Resources Management District.

Whidbey Island Conservation District: $53,385 Ebey's Prairie Watershed Stormwater Pre-Design

This project will build on an effort currently under way in Ebey's Prairie Watershed that will restore water quality and watershed function. Whidbey Island CD will identify specific stormwater retrofit and filtration opportunities that will reduce pollutant inputs and improve water quality and flow. Anticipated project elements include stormwater retrofitting, bio-filtration by plants and soils, restoration of farm field subsurface drainage systems, and landowner involvement and participation. The most feasible opportunities will be developed to the pre-design level for future implementation. This project will involve close collaboration with landowners to achieve long-term water quality improvement for Ebey's Prairie watershed.

Floodplain Management/Floodplain & Riparian Restoration

King County: $300,000
Improving water quality and habitat in middle Green River sub-basin
The county will use the grant to address water quality problems and degraded salmon habitat by restoring riparian zones along three stream reaches, including portions of the Middle Green River and Newaukum and Soos creeks. This project includes planting native plants, controlling knotweed, conducting public outreach, and monitoring water quality. Public outreach will include landowner workshops on riparian restoration and recruiting landowners to participate in future projects.

King County: $250,000
Newaukum and Soos Creek riparian restoration
King County will plant native vegetation in the riparian zones along stream reaches currently lacking in shade in the Newaukum and Soos Creek watershed systems. The project will include:
- Recruiting landowners.
- Planting vegetation for approximately 3,000 linear feet of riparian buffer.
- Monitoring plant survival and shade.

Kitsap County Public Works: $350,000
Dickerson and Chico Creeks Floodplain Restoration
Chico Creek, and its tributaries, are some of the most productive salmon streams in Kitsap County. Two culverts on the main tributary, Dickerson Creek have been identified as significant fish-passage barriers. In addition, the stream is disconnected from its floodplain, has extensive bank armoring, and riparian habitat has been limited by adjacent land-use. Kitsap County will replace the two aging culverts with larger fish-passable culverts, remove streambank armoring, restore floodplain habitat and off-channel areas, enhance in-stream and riparian conditions, and provide public education on the benefits of floodplain restoration. The County will use a watershed-based approach to achieve multiple outcomes including enhancing fish migration, improving floodplain connectivity and function, reducing flooding impacts, and significantly improving riparian and in-stream habitat for salmon, steelhead and wildlife.

Mason Conservation District: $349,937
Skokomish Riparian and Floodplain Initiative
The Skokomish River is the most frequently flooded river in the state of Washington. It suffers from degraded habitat, water quality, and river processes and thus is the focus of coordinated efforts by many partners to restore watershed health. For this project, the Conservation District will focus on the lower watershed and address two root causes of water quality and habitat impairment: floodplain disconnection and severe degradation of riparian areas. Activities will focus on invasive species control, riparian planting, floodplain planting and LWD installation. The project will improve riparian and instream habitat and floodplain connectivity.

Mountains to Sound Greenway Trust: $172,000
Issaquah Creek Knotweed Control and Reforestation
In 2008, the Mountains to Sound Greenway Trust and its partners launched a comprehensive effort to survey and control invasive weeds and engage private landowners in the restoration of Issaquah Creek. This is a high priority basin in WRIA 8 for the recovery of Chinook salmon. Building on these efforts, this project will include a survey of 16 miles of Issaquah Creek and its tributaries, invasive weed control on over 60 acres, and installation of 10,000 native trees and shrubs throughout the riparian corridor. It will include a significant public engagement and education component focused on private landowners.
Partner organizations: King County, Issaquah, Washington Parks & Recreation Commission, and Washington Department of Natural Resources.

The Nature Conservancy: $500,000
Floodplains by design – habitat recovery through collective action
The Nature Conservancy will identify floodplain areas in Puget Sound that have the highest potential to advance multiple benefits such as habitat and flood protection. The Conservancy and its partners will use this analysis as a basis to integrate flood risk reduction and ecosystem restoration information. This framework will help ensure that floodplain management decisions support Puget Sound recovery and community goals such as public safety and recreation.
Partner organizations: Puget Sound Partnership, National Oceanic and Atmospheric Administration, Federal Emergency Management Agency, and U.S. Geological Survey

The Nature Conservancy: $305,000 Farms,
fish and floods initiative
The grant will be used to bring together interest groups in the Skagit Delta area to restore the estuary and protect agricultural lands. TNC and its partners will identify and prioritize potential restoration projects, and will also complete the Lower Skagit Delta Agricultural Land Base Analysis to evaluate long-term farmland protection needs to maintain a viable agricultural industry. The project focuses on addressing three core issues in the Skagit Delta: salmon recovery, farmland preservation, and flood risk reduction.
Partner organizations: Western Washington Agricultural Association, Skagitonians to Preserve Farmland, National Oceanic and Atmospheric Administration, and Washington Department of Fish & Wildlife

Nisqually Land Trust: $250,542
Ohop Phase III Floodplain Restoration
This project is Phase III of a 4.5 mile restoration effort. The Nisqually Land Trust will re-meander over one mile of stream channel that was historically straightened, reconnect the floodplain and restore 70 acres of the surrounding valley floor. These efforts will return naturally functioning conditions to both the channel and adjacent wetlands allowing improved flood flows, increased filtration of water and enhanced aquatic habitat for threatened salmon and other aquatic-dependent wildlife. Restoring the riparian zone will shade the stream channel resulting in lower water temperatures and increased dissolved oxygen levels. Reconnecting the floodplain and restoring the valley floor will reduce erosion and filter runoff resulting in lower levels of sediment and fecal coliform entering the stream.
Partner organizations: Nisqually Tribe, South Puget Sound Salmon Enhancement Group, Nisqually River Foundation.

Nooksack Indian Tribe: $500,000
Engineered Nooksack River log jams
The Tribe will design and construct engineered log jams in two Nooksack River reaches at South Fork near Hutchinson Reach and North Fork at Wildcat Reach. The project will restore habitat conditions and help improve salmon abundance and productivity, particularly Puget Sound Chinook.

City of Seattle: $250,000
Cedar River stewardship-in-action
The project will restore habitat in key riparian areas of the lower Cedar River watershed and engage landowners in stewardship of riparian areas on their property. To achieve this, Seattle will:
- Treat invasive knotweed
- Plant native trees on shorelines of willing property owners
- Educate riparian landowners to steward their property and the river

Long-term goals include:
- Reducing water temperature and sediment delivery to the river
- Protecting channel complexity

- Improving habitat conditions for fish and wildlife.

Partners organizations: King County Noxious Weed Control Program, Forterra, Friends of the Cedar River Watershed.

City of Seattle: $120,000
Knickerbocker Reach Floodplain Restoration Phase 1, Thornton Creek

This is a two-phase project to restore floodplain function and stream habitat in an urban stream in north Seattle. The project will result in optimizing floodplain storage, reducing stream velocities and improving instream and riparian habitat quality. This project is receiving funds from EPA that are designated specifically for urban restoration; it is hoped this will serve as an urban floodplain reconnection demonstration project. Current funding will complete Phase 1 of this project – complete the design and permits. Phase 2 – construction – is currently not funded.

Snohomish Conservation District: $207,846
Healthy Soils for a Healthy French Creek, a Watershed Approach to Restoration

The Snohomish CD will coordinate a multi-faceted approach to improve water quality through restoration of soils and riparian buffers in the French Creek subbasin. This will include outreach to agricultural, residential and urban landowners to provide technical assistance to develop stewardship plans as well as resources to implement restoration. Restoration practices will include the planting of 7,800 shrubs and trees, improving soil through amendments and compost use, and implementation of manure, mud, and nutrient management practices.

Partner organizations: Tulalip Tribes and Forterra

Snohomish County: $277,520 Lower
Skykomish River Restoration

Snohomish County will restore natural river and floodplain processes and establish an enduring riparian buffer along 2,000 lineal feet of the lower Skykomish River. Activities include removing riprap from the river bank, installing bio-engineered bank stabilization, placing woody material, treating invasive species, planting 6.5 acres of riparian buffer, and installing flood fencing (snags that trap sediment and woody debris and foster plant establishment and stream channel braiding). In addition to work at this restoration site, the County will survey for and manage invasive species in other areas along the Skykomish River mainstem as part of a coordinated basin-wide weed control effort.

Partner organizations: Public Utility District No. 1 of Snohomish County, Snohomish County Public Works, Snohomish Conservation District, and USDA Conservation Reserve Enhancement Program.

Squaxin Island Tribe: $266,000
Goldsborough Creek Off-Channel Reconnection Phase I/Pond C

The Squaxin Island Tribe and its partners will reconnect a key wetland floodplain and restore fish access to a site in middle Goldsborough Creek in Mason County. Since 2001, the health of this watershed has improved significantly with the removal of a fish blocking dam and extensive conservation of land and habitat restoration. These efforts have resulted in increased production for coho smolts and a decrease in shellfish harvest restrictions. This project will build on this work by reconnecting seven acres of floodplain to Goldsborough Creek through the installation of culverts under an existing railroad line.

Partner organizations: South Puget Sound Salmon Enhancement Group, Green Diamond Resource Company, Simpson Lumber Company

Washington Department of Fish & Wildlife: $261,000 Freshwater
Riparian Habitat Guidance, Phase 1

WDFW will develop guidance for managing freshwater riparian habitat that incorporates current best

available science and includes buffer recommendations, new stream typing classifications and data sources, recommendations for freshwater lakes and ponds, long-range and site-specific management recommendations related to protecting riparian processes and functions, guidelines on using incentives to protect riparian habitat, and recommendations to maximize riparian function, even in the presence of some disturbance.

Improving Environmental Data – Stream Typing & Invasive Species

Kitsap County: $369,176
Improve stream data to protect freshwater ecosystems
County will expand its water typing assessment by conducting a field survey of stream reaches and developing, testing and refining a computer model to better predict distribution of streams and fish habitats throughout the county. This includes developing an interactive, internet-based site available to the public.
Partner organizations: Wild Fish Conservancy and University of Washington

Snoqualmie Tribe: $250,000
Watertyping to Improve Land Use Management in the Snoqualmie Watershed
The Snoqualmie Tribe will field verify the water type classification within two Snoqualmie sub-basins: Cherry Creek and Peoples Creek. Data on stream location and fish habitats will be collected. These data will be used to evaluate and refine a model that can be used to predict the distribution and classification of streams in the Snoqualmie Basin that are downstream from Snoqualmie Falls. The Tribe will also evaluate the usefulness of a method for detecting fish DNA in water samples as a supplement to traditional surveys of fish species distribution. They will share their results with affected local and state governments to support informed decisions about where, how, and to what extent development will occur.
Partner Organizations: Wild Fish Conservancy, University of Washington, U.S. Forest Service.

Tulalip Tribes: $186,923
Predictive modeling, protecting coastal salmon streams
The tribe and its partners will identify priority coastal streams in Island County watersheds to protect and restore to ensure this information is incorporated in updates to regulations, ordinances, and plans. Previous study information will be used to develop a predictive model to identify coastal streams that have key characteristics making them suitable salmon rearing habitat. The model will be used in conjunction with watershed characterization data to prioritize protection and restoration efforts. The information will be incorporated into Island County's shoreline master program and critical areas ordinance updates as well as other planning processes.
Partner organizations: Skagit River System Cooperative, Wild Fish Conservancy, Northwest Indian Fisheries Commission, Island County, and Whidbey Watershed Stewards

Washington Invasive Species Council: $225,000
Combating invasive species
The council will use the grant to continue work already started to identify the extent and impact of invasive species in Puget Sound watersheds. The council will build a database and species maps, and develop a survey tool to update the information annually. This work will bring together information from a variety of existing sources into one database, allowing the council to assess the current status of invasive species and identify information gaps.