



## Fenster Restoration Constructed in Auburn



*The Fenster project under construction in October, showing large wood used to armor the toe of the bank.*

*Photo courtesy of King County.*

King County, in partnership with the City of Auburn, completed construction on the second phase of the Fenster Levee setback and restoration this fall. The project removed 700 linear feet of an old levee to form a low, vegetated bench and gently sloping river bank. This will provide shade and overhanging vegetative cover, and will better accommodate floodwater and attenuate floodwater velocities. Project funders included the Salmon Recovery Funding Board, the City of Auburn, and King County.



## Message from the Coordinator

With all the talk about state and national economic stimulus packages, I think this edition of *News fit for a King!* demonstrates how “shovel ready” WRIA 9 is to put people to work. From Auburn’s Fenster Levee Setback to knotweed control along 17 acres of the Green River, this watershed personifies **action**. Moreover, our ecological economics analysis demonstrates that our work to restore and protect watershed health and salmon habitat is **putting people to work and achieving significant economic benefit**.

On page 2, you will see an article on the September nearshore workshop. A statement made by keynote speaker Dow Constantine, WRIA 9 Steering Committee Co-Chair, grabbed people’s attention—if you lined up the armoring that exists along the shores of Puget Sound from end to end, you could build a wall from Seattle to Spokane and back and have plenty to spare! The recently-adopted *Puget Sound Action Agenda* affirms that bulkheads in the nearshore do significantly harm Puget Sound. It is gratifying that the scientific investigations of WRIA 9 to understand the nearshore and its role in salmon recovery are now also informing how to protect and preserve Puget Sound. Another page 2 article on the benefits of the bulkhead removal project at Seahurst Park in Burien demonstrates our commitment to measure how our restoration projects are working. This monitoring provides accountability as well as expanding our knowledge of how beaches respond when bulkheads are removed.

And the work continues. Page 4 provides a sense of what is coming down the pike by listing the projects in WRIA 9 that recently have been awarded grants. **The sum total of grant awards from these three funding sources is \$3.7 million!** The projects that are funded will be built or implemented in Auburn, Kent, Normandy Park, Vashon Island, and multiple sites in the Middle Green River subwatershed. The restoration projects among them will put people to work moving dirt, placing large wood, re-foresting our watershed, and controlling invasive weeds.

The partnerships among all the local governments and the many other agencies, non-governmental organizations, and business, environmental, and community groups are paramount to implementing the *Salmon Habitat Plan*. Partnerships make for excellent projects, too. For example, the Pautzke levee restoration project is recognized by the Salmon Recovery Funding Board as one of four projects that stand out statewide as “wow, noteworthy” salmon restoration projects—models for others. Our collective efforts demonstrate the ongoing commitment at the local watershed level to “Making Our Watershed Fit for a King”.

- Doug



## Young People Learn About and Steward the Duwamish River



*Students visit the Codiga restoration in Tukwila to learn about the Duwamish.*

*Photo courtesy of Brooke Alford.*

This summer, eight students from Foster High School in Tukwila took part in the District’s first Watershed Conservation Studies program. Students learned in the classroom and in the field about the history, geography, hydrology, and civic issues of their watershed, as well as about the salmon life cycle and habitat requirements. They also performed restoration work along the vital Duwamish transition zone. Sponsors and partners included the Green/Duwamish Watershed Alliance (lead), King Conservation District, King County Work Training Program, Community School Collaboration, Tukwila Parks and Recreation, REI Southcenter, and the Cascade Land Conservancy.

## County Continues Fighting Knotweed Along the Green



*Photo of Bohemian knotweed being controlled through stem-injection. A small amount of herbicide approved for use next to streams is injected into the thick canes. The herbicide is taken into the roots,*

*killing the rhizomes. Treated canes are marked with pink paint to avoid missing any.* Photo courtesy of King County.

This summer, the King County Noxious Weed Control Program controlled nearly 17 acres of knotweed along 59 non-contiguous river miles of the Green River and its major tributaries (Soos Creek and Crisp Creek). Invasive knotweed is a significant problem in the Green/Duwamish River watershed although less pervasive than in other King County watersheds. Keeping this weed under control protects native riparian vegetation. Financial support came from the US Fish and Wildlife Service and US Forest Service.

## Planners Learn How to Protect the Nearshore Resource



*Kollin Higgins, King County DNRP, reveals the hidden life of a beach in Normandy Park to workshop participants.*

WRIA 9 staff organized a two-day workshop in September on the impacts of bulkheads in the marine nearshore. The workshop helped planners better understand how armoring negatively affects the marine nearshore, explained alternatives to hard armoring, and clarified the regulatory authority of local jurisdictions to condition and deny armoring requests. Approximately 70 participants attended the workshop including all of the WRIA 9 marine nearshore jurisdictions, several WRIA 8 cities, City of Bainbridge Island, Snohomish County, WADOE, WDFW, NOAA, and the Army Corps. The workshop was largely funded by King Conservation District with additional support from the Puget Sound Partnership. A 10-minute video summarizing the workshop can be viewed at:

<http://winmedia.metrokc.gov/dnr/dnrp/NorthshoreEnvironment.wmv>

## Benefits of Bulkhead Removal at Seahurst Park Monitored



*A University of Washington student uses a length of PVC pipe to draw a core sample of the beach substrate at Seahurst this summer.*

*Photo courtesy of Jason Toft, University of Washington.*

The south bulkhead at Seahurst Park in Burien was removed in 2005 and the beach restored. Monitoring is under way to measure how the restored site is working compared to a reference site, as well as to the pre-restored conditions. Benthic cores are taken at three tidal elevations (+12, +8, and +5 feet above Mean Lower Low Water) during June, July, and September. Benthic cores are taken by inserting a PVC pipe into the beach and extracting a column of sand, gravel -- and all the critters living in the spaces in between. Monitoring to date shows a promising initial response in the development of the benthic invertebrate community, although differences do still exist between the restored and reference beach.

## Nearly 100 Acres Protected in the Middle Green River



*Wetland on the edge of Bass Lake, visible at upper left. Bass Lake drains to the Green River.*

*Photo courtesy of King County.*

This summer and fall, King County protected four parcels whose protection will contribute to watershed health and salmon habitat recovery:

- 10-acre acquisition near Big Spring Creek, a tributary to Newaukum Creek near Enumclaw
- 10-acre conservation easement near Big Spring Creek
- 65- and 9-acre acquisitions within the Bass-Beaver-Dandy Lake complex that drains to the Middle Green River

In addition, staff are currently designing and permitting the Big Spring Creek restoration project.



## Green River Levees Rebuilt with Fish-Friendly Features



*The Kent Shops-Narita levee on the Green River in Kent while under reconstruction on September 8. Large wood at toe of the levee protects the levee from erosion and provides shelter for juvenile salmon.*

The King County Flood Control District partnered with the Army Corps of Engineers and the cities of Kent, Auburn, and Tukwila this summer to repair six flood-damaged levees on the lower Green River. Some of the features of the re-built levees should improve habitat value. Repairs at the Kent Shops-Narita, Myer's Golf, Galli's, Dykstra, and Tukwila (Sites 3 and 5) levees consisted of regrading the river banks to more gradual slope angles (2H:1V) and installing large wood at the river's edge. Native riparian vegetation where allowed under the Corps levee vegetation management standards will be planted in 2009. Funding for the reconstruction came from the Corps (80%) and the Flood Control District (20%).



## More Nearshore Protected at Piner Point on Maury Island



*Piner Point on Maury Island showing healthy riparian vegetation and unarmored shoreline.*

*Photo courtesy of King County.*

Over the last several years, King County has been systematically acquiring a contiguous set of parcels at Piner Point at the southeast corner of Maury Island. A grant from the Salmon Recovery Funding Board was stretched further than anticipated and then combined with local King County Conservation Futures Tax funds. This has allowed the purchase of more land than planned. This summer, the County made its final purchase of a one-acre parcel that included 200 feet of shoreline. With this last purchase, a total of 7.76 acres and 1,600 feet of shoreline have been protected. Protecting the beach and feeder bluffs in this stretch of nearshore will provide an on-going source of sediment for the drift cell.



## MaST Opens Its Science Pier to the Public in Des Moines



*Visitors enjoy the aquaria and touch tanks at the newly-opened MaST Center operated by Highline Community College.*

*Photo courtesy of Highline Community College.*

The Highline Community College (HCC) Marine Science and Technology Center (MaST) on Redondo Beach in Des Moines, was opened to the public in June. Located on a pier, the MaST Center serves as the marine laboratory for students at HCC. It is dedicated to expanding knowledge about the Puget Sound and the surrounding environment through teaching, outreach, and research. The Center is open to the general public on Saturdays from 10 a.m. to 2 p.m. In addition, *Science on the Sound Seminars* bring a diverse range of speakers on Saturdays throughout the year. Learn more at <http://flightline.highline.edu/mast/>



## Large Wood Improves Lower Newaukum Creek



*An engineered log jam installed on Newaukum Creek just upstream of the confluence with the Green River.*

*Photo courtesy of King County.*

This summer and fall, King County restored the lowest reach of Newaukum Creek. The project consisted of in-stream restoration of approximately 800 linear feet of stream and improved connectivity and quality of approximately 12 acres of floodplain habitat adjacent to the stream and the Green River. Also included was restoration of a 1,600-foot relic side channel of the Green River. Several thousand native trees and shrubs will be planted this fall and winter. Upon completion of the project in 2009, the total project cost will be approximately \$650,000. The project was funded by the Salmon Recovery Funding Board, King Conservation District, and King County.



## SRFB Grants \$363,725 to WRIA 9 Projects

On December 11, the state Salmon Recovery Funding Board (SRFB) awarded:

- \$231,725 to King County to remove the Pautzke levee and reconnect 20 acres of floodplain to the Green River east of Auburn
- \$150,000 to Kent to begin design of a project to restore habitat at the Downey farmstead site between Kent-Des Moines Road and the Green River



## \$2.5 Million in Conservation Futures Tax Comes to WRIA 9

King County's Conservation Futures tax (CFT) is a dedicated portion of property taxes levied throughout King County for the purchase of open space lands. This year, \$2.5 million in CFT funds have been awarded to the following projects in WRIA 9:

- Point Heyer Drift Cell Acquisition on Vashon Island (King County): \$425,000. Provides local match for extensive effort to acquire bluffs that feed beaches on the eastern shore of the island.
- Judd Creek Acquisition on Vashon Island (King County): \$300,000. A partnership project to protect riparian habitat on Judd Creek.
- Beaconsfield-on-the-Sound (Normandy Park): \$517,000. Contributes to extensive effort to protect bluffs that feed beaches.
- McSorley Creek Wetlands (Kent): \$300,000. Acquisition of the remaining intact headwater area for McSorley Creek near Highway 99.
- Auburn – Smith/Fenster Levee Setback (Auburn): \$130,000. Acquires a small parcel between two areas of public ownership, thus allowing a more effective levee setback.
- Green River Natural Area/Newaukum Creek (King County): \$525,000. Part of a long-term, multi-parcel effort to protect lands in the Middle Green River and at mouth of Newaukum Creek.
- Bass-Beaver-Dandy Lake Complex (King County): \$312,000. Part of a long-term, multi-parcel effort to protect lands around three lakes.



## KCD Awards More Grants

The King Conservation District/WRIA 9 Forum partnership continues to improve the health of the watershed and conserve natural resources. Recent grants by KCD address key recommendations of the Salmon Habitat Plan:

- Ecological Economics Analysis: \$50,000 for a grant to the Gund Institute of Ecological Economics to build the capacity of WRIA 9 by developing an independent funding mechanism to fund the WRIA 9 Salmon Habitat Plan.
- Newaukum Creek Riparian Restoration Partnership (King County): \$100,000 in funding for this grant will be directed toward controlling invasive vegetation and planting native trees and shrubs within the riparian zone of Newaukum Creek in partnership with private landowners.
- Green River – Pautzke Restoration (King County): \$425,000 for construction of a floodplain habitat restoration project on the Green River east of Auburn. The project includes removing and relocating the Pautzke Levee at Rivermile 32.5.
- WRIA 9 Project Implementation 2009 (King County/WRIA 9): \$123,969 to provide funding for staff time to assist local sponsors with project review and design, development of grant and permit applications, finding resources to solve problems, and identifying effective design elements and construction methods.
- Smith/Fenster Levee Setback (City of Auburn): \$130,000 towards the purchase of a 0.64 acre parcel of land situated between publicly-owned lands adjacent to the Green River. This acquisition will allow future project phases to set back a segment of the Green River levee and restore riverine habitat. The levee setback will increase the width of the river channel and adjoining floodplain, opening up riparian and aquatic areas for habitat restoration.

## Contact the Salmon Habitat Team

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