

### Fall 2016 Newsletter Sanong RAM Committed to Protecting and Restoring South Puget Sound Habitat

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#### **Board of Directors**

The SPSSEG is administered by a nine-member volunteer board elected by the general membership.

> John Rosenberg - President Terry Wright- Vice President Dick Wallace - Treasurer Emily Garlich - Secretary Duane Fagergren Jennifer Whipple Steve Brink Bob Barnes Joe Williams

#### Staff

Lance Winecka - Executive Director Brian Combs - Project Manager Jerilyn Walley - Project Manager Claire Williamson - Field Technician Brian Zierdt - GIS Technician Nick Woodson - Nick Woodson & Assoc.

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> Cover: John's Creek Estuary Photo by: Joe Williams

### Message from the Executive Director

#### Lance Winecka

Managing large, complex restoration projects is a welcomed part of



our organizational mission at SPSSEG and fortunately we are good at it. Our members, staff and board find it very rewarding to see landscape projects being built across the South Sound that provide both immediate and long term environmental benefits to salmon and other species. SPSSEG is fortunate to work with a great network of partners, funding agencies, and landowners to implement all sorts of unique projects. Some projeccts take up to 10 years to build or even longer! These projects are developed using the best available science. They take an incredible amount of watershed coordination and planning to be successful. When a project that we have worked so hard on is built there is both relief and an expectation that it will work as intended to help fish and enhance their life cycle needs.

There are always new grants to write, unexpected challenges, and budgets to balance but a successful project is worth it. Challenges are always part of the project life cycle. And unfortunately just like a salmon, sometimes a project dies before it "spawns". I always feel terrible when a funded project isn't implemented like it was envisioned. It is a lost opportunity to help fish thrive in our local watersheds. Now more than ever, it is important to work through any obstacles to restoration, to find a way to be more successful for the fish and our communities. We take great pride in hurdling any barriers to try and find a way to "spawn" a completed project. But sometimes, we just can't get there. Luckily this happens so infrequently that I'm unaccustomed to not building a funded project. Our staff does enjoy working on large and complex projects and will always feel proud when our hard work pays off. And luckily for the fish we have a full slate of projects getting ready to be built!

SalmonGram is published by the South Puget Sound Salmon Enhancement Group (SPSSEG), a 501(c)(3) non-profit, volunteer-based organization.

The SPSSEG is one of fourteen Regional Fisheries Enhancement Groups created in 1989 by the Washington State Legislature. The Regional Fisheries Enhancement Program is partially supported by United States Fish & Wildlife Service and by surcharges on sport and commercial fishing licenses. The Washington Department of Fish & Wildlife provides technical and administrative support to the program.

# **Changes** Within SPSSEG

As high flows modify the rivers, and the season changes from summer to fall, there will also be changes within SPSSEG. Since 2005, Kristin Williamson has been a dedicated project manager and a valuable part of our small team. She has recently left SPSSEG to join Tacoma Power as a fish biologist. She leaves behind a legacy of partnerships and restoration projects and her skills and personality will be difficult to replace. As Kristin transitions to complete other important projects with our friends at Tacoma Power, she will be missed by the SPSSEG organization



and the rest of the South Sound community. Good luck Kristin!

We also say goodbye to our longtime Accounts Manager, Christine Garst, who retired this year after

twelve years of dedicated work with SPSSEG.

However, sometimes staffing changes can open up other great opportunities



for existing staff! To fill the roles of Kristin and Christine's departures our existing staff will be stepping up to branch out and will cover their project portfolios. With the recent staff additions of Claire Williamson, Brian Zierdt and Nick Woodson, in tandem with long time staff members, Jerilyn Walley and Brian Combs, SPSSEG will do an excellent job of maintaining our project management experience and quality of work. We are also excited to keep doing what we do best, projects!

If you are interested in giving a donation to SPSSEG and inviting First Salmon into your space, please contact <u>KennedyCreek@spsseg.org</u>



1 month ..... \$ 250 3 months ..... \$ 700 6 months ..... \$ 1,250

All donations will be used to support the Kennedy Creek Salmon Trail and our Education and Outreach program.

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### Chum, Chowder & Chocolate Saturday, November 12, 11-2 pm



Join us for our 6th annual Chum, Chowder and Chocolate fundraiser! On **Saturday, November 12th.** Taylor Shellfish will be serving delicious Xhin's famous chowder from **11am - 2pm**. Please mark your calendar, invite some friends, and come support community education in action.

If you are not able to attend, please consider making a donation to support a school group or school bus trip. School busses are approximately \$150 for one round trip to the Trail and back and a \$35 donation supports 10 student visitors to the Trail.

Thanks to our generous recent donors: Squaxin Island Tribe, Taylor Shellfish, The Community Foundation of South Sound, and most importantly our docents!

Become a Chum! Support the Kennedy Creek Salmon Trail!					
Name	Please Return form to:				
Street City State Zip E-mail	SPSSEG – 6700 Martin Way East, Suite 112 Olympia, WA 98516 –				
• Chum Egg	.\$50 - \$250				
• Chum Fry	\$250 - \$500				
Spawning Chum	\$500+				
Corporate Chum	\$1,000+				
Other Tax-Deductible Donation	\$				

The Kennedy Creek Salmon Trail will be open October 29th through November 27th. Come visit us on the weekends between 10 am and 4 pm! If you have a group of curious salmon enthusiasts, schedule a guided tour by emailing kennedycreek@spsseg.org.

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### **Annual Meeting**

Thursday, February 9, 2017 5:30 - 8:15 pm Lacey Community Center, 6729 Pacific Ave SE, Lacey, Washington





#### Puget Sound and Elwha River Restoration: Lynda V. Mapes, Seattle Times

- \* Taylor Shellfish Appetizers
- Light Refreshments
- Membership Update
- ✤ Project Showcase
- Board Elections
- More Information at

www.spsseg.org

## Edgewater Beach Restoration and Bulkhead Removal

This fall, the Edgewater Beach Restoration Project will finally be underway. After three years of preparation we expect it to take only a few weeks for the nearly 800 foot-long bulkhead to be removed, thereby releasing the beach and its towering feeder bluff from the heavy weight of the shoreline armoring habitat to the north of the site are dependent on sand and sediment input from the bluff, which has now been blocked for decades due to the bulkhead armoring.

How will the site respond? Which types of habitat and which species will benefit from the project?

that has blocked habitat and beach forming processes for several decades. Surf Smelt, beachloving insects, and foraging shore birds might immediately benefit from the restoration of this beach, although long-term changes resulting from the project will provide the most significant ecosystem

transformation and habitat benefits.

The feeder bluff sitting behind and above the beach historically provided most of the sediment for the 4.4 Km drift-cell that extends north to Carlyon Beach. In other words, all the beaches and shoreline



questions our best researchers can only answer tentatively, due to the lack of funding for science-based studies and a paucity of data on the effects of armoring in Puget Sound. Fortunately, we now have the benefit of recent and ongoing research to help restoration managers, planners and scientists better understand how shoreline armoring

Typically, these are

affects shoreline and beach forming processes and the species that rely on beach habitats. The Edgewater Beach Project is one of many sites being studied by Dr. Megan Dethier, a University of Washington Researcher, and her collaborative team of scientists. Research at the restoration site also includes forage fish monitoring by the Washington Department of



Fish and Wildlife, change mapping by the WA Dept. of Ecology, and fish monitoring by the NOAA. The long-term study will provide ground breaking insight

into how beach armor affects beach habitat and many species, including some that are linked to the productivity of salmon. We are very fortunate to have received research funding from the Estuary and Salmon Restoration Program (ESRP) for both





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pre-project and post-project monitoring over a three year period and we're hopeful our current funding application will be approved and the research can continue to develop a picture of how the site responds post-restoration.

For more information on shoreline monitoring check out the nearshore toolbox website: https:// sites.google.com/a/uw.edu/toolbox/home, and look for Dr. Dethier's recent paper: M.N. Dethier et al. 2016. Multiscale impacts of armoring on Salish Sea shorelines: Evidence for cumulative and threshold effects. Estuarine, Coastal and Shelf Science 175 (2016).

Left : Natural feeder bluffs contribute significantly to the health of our Puget Sound beaches. At Edgewater, a feeder bluff sits just above the beach, feeding sediment to the areas below it. Top right: Jerilyn Walley and Dr. Megan Dethier collect data before the bulkhead removal. Bottom right: Project Manager, Brian Combs collects data at Edgewater Beach. Bottom: Mauriece Mjor stands next to the Edgewater Beach bulkhead.

# **Deschutes** Watershed Restoration Planning

Although smaller and less famous than its Oregon namesake, the Deschutes, in South Sound, is Thurston County's 2nd largest river. Originating on Cougar Mountain in the Gifford Pinchot, the 'Little D' drains 166 square miles and flows northwesterly

winter rains hit though, it becomes a raging torrent of brown, fast moving water, uprooting the trees that line the banks and moving rocks as large as watermelons around in the stream bed. The Deschutes hosts resident cutthroat, searun cutthroat, coho, Chinook and



River mile 33 LWD restoration planning project site

steelhead.

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for 57 miles to Budd Inlet in Puget Sound. The river meanders through private timberland, sweeping under overhanging fir, cedar, hemlock and big leaf maple and is joined by the upland tributaries of Huckleberry, Thurston and Mitchell Creeks. The mid-section slows as it reaches the prairie and glides past the town of Rainier. It enters its more urbanized lowlands and gains its largest tributary, Spurgeon Creek before entering into the City of Tumwater to its final waterfall at Tumwater Historical Park. During the summer the water runs low, usually from April or May well into October and often November. Once the

The Deschutes is the focus of recent studies including Department of Ecology's 2015 Water Quality Improvement Report, The Squaxin Island Tribe's Coho Recovery Plan and Thurston County's Deschutes Watershed Land Use Analysis. While the Deschutes River supports a variety of wildlife habitat and recreational uses, it also suffers from ongoing pollution concerns. The river is listed under the federal Clean Water Act for dissolved oxygen, fecal coliform, temperature, pH and fine sediment. The three reports have similar recommendations regarding water quality and salmon habitat needs. They outline actions that include increasing habitat complexity through addition of stable large wood, addressing water temperature through increasing riparian cover, enhancing cold water input areas for thermal refuge to juvenile salmonids, and decreasing fine sediment inputs that can smoother redds and clog juvenile's gills.

SPSSEG is working to address some of these concerns in priority areas of the system. In the lowlands at Pioneer Park, we are working with the City of Tumwater to reduce fine sediment, increase habitat complexity and install riparian cover. In the prairies near Rainier, restoration of agricultural fields including large wood habitat structures and riparian planting is being planned on property held in conservation status by the Center for Natural Lands Management. Farther upriver, near Lake Lawrence, a large wetland reestablishment and riparian project has started with planting 14 acres along a mile of the Mainstem. In the uplands, we are working with





Planting completed near Lake Lawrence

Weyerhaeuser to explore restoration options to add channel complexity. While three of these projects are in their initial planning phase, SPSSEG is working towards science based restoration actions addressing the recent recommendations of the TMDL, Coho Recovery Plan and Land Use Analysis.

**River mile 21 LWD and riparian restoration planning project site** 



### SPSSEG Pilots Sand Wand Technology

SPSSEG has been coordinating a pilot demonstration to test the Sand Wand equipment since 2014. The Sand Wand is a proprietary variable water jet and suction removal technology developed by Streamside Environmental LLC based in Findlay, Ohio. The Sand Wand has been in operation for nearly 10 years and it has been used across the United States and Canada to clean sand and embedded sediment from gravel substrates. The Sand Wand has been used for remediation/mitigation projects and has been successful for stream restoration projects. For additional Sand Wand information and to review their patented technology please visit <u>www.streamside.us</u>.

In August 2016 the Sand Wand was used on a 150 foot long section of Spanaway Creek in Pierce County. Pierce County Surface and Stormwater Management provided the funding for this pilot project. The Spanaway Creek project was primarily used to determine if the Sand Wand could restore stream channels and to selectively remove silt throughout urban streams.



Healthy stream bottoms and clean gravel without embedded silt is a desired habitat feature for fish. As the sediment tends to gets deeper in channels there is less water conveyance which can increase flooding to landowners along a creek. Deep sediment can also have impacts on dissolved oxygen and hyporheic exchange below the substrate. Clean gravel is essential for spawning and where insect production provides an important food resource. Often times, macroinvertebrates production and egg incubation is very high within well oxygenated and porous gravels. The Sand Wand technology was specifically solicited for this project because it can selectively remove silt while not removing the desired gravel substrate. Typically, other methods of sediment removal, either by digging or dredging can cause unintended impacts by increasing turbidity and removing all sediment (gravel) regardless of size from the channel.



The end result of the Sand Wand pilot project did remove unwanted silt both above and beneath the gravel to about 6-8 inches deep. After the Sand Wand was used, SPSSEG staff stirred up the gravel and did not observe any turbidity in the water. Even after picking up gravel by hand, there was virtually no visual evidence of silt within the treated gravel. Again, one of the primary goals of this project was to expose existing gravel that was buried beneath muck and sediment and to restore the porous gravel. In short, this goal was met by using the Sand Wand, although logistic issues with clogging, water treatment, and sediment disposal may impede the practicallity and cost effectiveness of using the Sand Wand on large scale projects. The Sand Wand could still be an effective tool to remove unwanted silt from targeted gravel bottomed streams in Washington State.

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### SPSSEG by the Numbers

Below is a brief look at SPSSEG's financials for the 2015-2016 Fiscal Year. For a full copy of this year's financial audit, please contact Lance Winecka at Lance@spsseg.org.

Abbreviated Statement of Financial Position					
as of June 30, 2016					
Ass	sets	6/30/2016	6/30/2015		
	Cash	128,269	268,889		
	Receivables	299,674	248,440		
	Prepaid Expenses	678	1,976		
	Equipment	15,253	13,596		
	(less depreciation)				
Total Assets		443,874	532,901		
Liabilities		223,703	267,376		
Net	t Assets	220,171	265,525		
Te	otal Liabilities & Net Assets	443,874	532,901		

Abbreviated Summary of Activities					
as of June 30, 2016					
Sup	oport & Revenue	6/30/2016	6/30/2015		
	Grants & Contracts	1,815,309	2,258,528		
	Inkind Grant Match	11,983	8,500		
	Donations	6,139	203,913		
	Membership Dues	1,635	830		
	Misc/Interest Income	517	246		
Total Support & Revenue		1,835,583	2,472,018		
Expenses					
	Program Expense	1,753,609	2,199,161		
	Management & General	126,885	120,537		
	Fundraising	443	149		
Tote	al Expenses	1,880,937	2,319,847		





South Puget Sound Salmon Enhancement Group 6700 Martin Way East, Suite 112 Olympia, WA 98516

Please forward this newsletter on to a friend. Thank you!



South Puget Sound Salmon Enhancement Group Mission:

To protect and restore salmon populations and aquatic habitat with an emphasis on ecosystem function through scientifically informed projects, community education, and volunteer involvement.