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CREST Quarterly Newsletter

Greetings CREST Members and Partners:

Berries are ripening along our streams and in our forests and the sun is out. I hope that you are all enjoying the height of our all-too-brief summer!

Please take a moment to read about our latest accomplishments. You will see that CREST is nearing completion on some significant habitat restoration and environmental planning projects. Meanwhile, we are planning for a busy and productive future. As we take on more challenges we have made some strategic personnel changes. I am convinced this is the most professional and capable staff CREST has ever had and our members and partners will be impressed with their work.



Rubus spectabilis (salmonberry)

Also attached is a recent newspaper article mentioning CREST. As always, stay in touch and let us know how we can be of service.

~Micah Russell, Director

Habitat Restoration Project Updates



Work continues on Lewis & Clark National Historic Park property to restore 33 acres of tidal wetland. The engineers and construction contractors of Henderson Land Services have prepared the internal tidal channels as we await final approvals to modify the dike. As you can see from this photo, HLS has creatively recovered and integrated cleared brush and logs into the stream bank, held in place throughout by large wooden pins. We expect the willows to re-sprout and greatly enhance the riparian edge. This complexity will also be a great refuge and foraging environment for juvenile salmon.

We are also experimenting with solarization of the worst patches of invasive reed canary grass (the plastic sheeting in the upper right quadrant of the photo). In effect, we are using heat to kill any remaining seeds.

Meanwhile, our restoration department is moving ahead with planning and design for 4-5 habitat restoration projects in 2012, and many more on the horizon. This involves a lot of reconnaissance and mapping, landowner and agency meetings, and proposal and budget development. CREST has brought significant improvements to the ecology of the Lower Columbia River and Estuary over the past 12 years, but it is a thrill to see even more ambitious plans come together for the next six. Stay tuned!

Planning Department Projects



Maul, Foster and Alongi were contracted by CREST and the Lower Columbia Solutions Group to perform a Confined Disposal (CDF) Feasibility Study. The firm evaluated the abandoned north lagoon at the City of Warrenton wastewater treatment plant, finding that that the site is suitable as a containment area for contaminated sediments dredged by area ports from both a technical and regulatory perspective. Conversion of the lagoon to a CDF would provide significant environmental and economic benefit to the area and has an estimated capacity lasting 15+ years.

The study assessed technical and engineering challenges, regulatory framework, preliminary cost estimates and operational issues. Also included is a conceptual site model for understanding groundwater fate and transport, with input from the Oregon Department of Environmental Quality. A full presentation on the findings will be made to the Lower Columbia Solutions Group this fall and plans will be made to seek funding for complete design and construction.



Feasibility Study funding was provided by the City of Warrenton, CREST, Port of Astoria, Port of Ilwaco, U.S. Army Corps of Engineers, and Oregon State Lottery Funds administered by the Oregon Business Development Department.

Personnel Updates

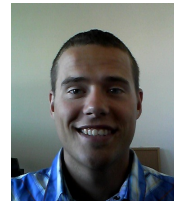
Madeline Dalton, former *Watershed Council Coordinator*, is joining the restoration department as a *Habitat Restoration Project Manager*. After two very successful years coordinating the activities of four local watershed councils, she is happy to accept a new challenge and focus on project development and implementation.

April Silva will be assuming a new role in the research and monitoring department as *Lead Ecologist*. April has been with CREST since 2005, providing the consistent leadership needed to expand our project-effectiveness monitoring and laboratory services. She will also continue to provide specialized expertise in wetland characterization and delineation.

We would like to welcome Jesse Jones as the new CREST / North Coast Watershed Association *Watershed Council Coordinator*. Jesse has background in a variety of not-for-profit work, most recently consulting with the Upper Nehalem Watershed Council and Clatsop Soil and Water Conservation District as a landowner outreach specialist. She already has extensive relationships in the community and will no doubt bring great energy and innovation to the councils.



Finally, we are pleased to announce that Jason Smith, our long-time seasonal field technician, is now the CREST *Habitat Restoration Biologist*. Having also worked for the Lewis & Clark National Historic Park the past few years, he has a strong background in natural resources and an intimate understanding of our sampling locations and techniques. We will also be looking to expand his knowledge base over time with opportunities to help implement restoration projects.



Recent Press

“Tearing down the past builds healthier future for wetlands.”

Daily Astorian (Katie Wilson): Tuesday, July 12, 2011

Last year, both sites looked like war zones, with a violent uprooting of trees and plants, torn ground, mud everywhere.

Today, Otter Point (Lewis and Clark National Historical Park in Astoria) and a site at Fort Columbia (in Washington) are looking more how staff from the National Park Service and the Columbia River Estuary Study Taskforce (CREST) envisioned they would months and months ago.

“It was pretty scary there at first,” said CREST Director Micah Russell about Otter Point. “Now you can really visualize what the wetlands are going to look like.”

Both projects, intended to benefit salmon, involve the reintroduction of tidal flow across historic wetland areas.

With the federal push to protect salmon, restoration projects like those at Fort Columbia and Otter Point are getting more attention. The data collected at Fort Columbia, for instance, will be valuable in guiding projects as the site monitors look at how salmon respond to and benefit from the reopened habitat.

Multiple goals are folded into the projects: restoration of historical wetland that has (in some cases) been cut off from the water for decades, habitat and wildlife preservation, and quality of life for nearby human populations.

Reopening the wetlands by breaching a dike at Otter Point means the city of Warrenton is getting a new dike. Built on the National Park Service’s dime, it will be the only dike in a sprawling and increasingly worn-out system that will be constructed to the new U.S. Army Corps of Engineers’ standards.

At Fort Columbia, returning the wetlands to their original state will probably (and to a certain degree already has) cut down on flooding issues in that area.

But for all the potential benefits, restoration work can look destructive in the beginning stages.

At Fort Columbia, bringing back the water meant major work on a major highway: replacing a small 24-inch culvert under U.S. Highway 101 with a massive 12-foot-by-12-foot culvert.

At the considerably larger Otter Point site, crews with Henderson Land Services systematically took the land apart: clearing out dredge spoils, tearing up most of the existing landscape to bring down the elevation, carving out historic channels and beginning construction on a massive dike.

Now, Otter Point is at the end of the first phase of its two-phase development. Project managers Matt Van Ess, with CREST, and Carla Cole, with the National Park, couldn't be happier. "This is a major milestone," Van Ess said, looking around at the still very muddy site, the tidal channels bordered with salvaged woody debris. "(This is) three years of design work and permitting."

The project had several setbacks, including concerns from Warrenton city officials and then the crash of a small single-engine plane on the site, not to mention the sheer amount of work it took to clear the grassy, wooded area.

The Fort Columbia site has been finished for several months and already seems to be fulfilling its purpose although it's still too early to say for sure.

"In all our seines (nets), we caught at least as many fish as we had last year so, already, it's a huge increase in the amount of fish we're seeing," said April Cameron, a biologist and ecologist with CREST, who is one of three people actively monitoring the Fort Columbia site.

Since March, they have counted, among other fish, 174 Chinook salmon and 64 Coho.

The site monitors trap fish in nets and weigh them and count them. There is a PIT tag array set up. Using this, monitors can track juvenile salmon movement and behavior, Cameron said. PIT-tagged fish can provide monitors with a wealth of information for comparison such as the weight and length of a salmon at the time it was tagged.

It's not all about fish though. Site monitors note down everything: how the tides are affecting the landscape and are carving out channels, bringing in debris, encouraging or discouraging particular plant growth; what animals are using the area and how they're using it.

The list goes on.

"We're just beginning," Cameron said.