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- Whitney Smith,  
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- Denise Hoffert-Hay,  
Contracted Project Manager

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- Sarah Dyr Dahl,  
Projects Coordinator
- Erika Lang,  
Outreach Coordinator
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## Shearer and Sodom Dam Removal Projects Complete

Denise Hoffert-Hay, Project Manager

Removal of Sodom and Shearer Dams and construction of the Sodom Channel engineered riffles were completed on-time and on-budget. Construction began on July 15<sup>th</sup> and was complete by October 31<sup>st</sup>. The dam removals were the culmination of more than 8 years of planning and collaboration to restore the river system to a natural, free-flowing state conducive to fish passage and healthy watershed processes.

General contractor BCI Construction (Portland) worked closely with River Design Group (Corvallis) to implement the project design for the Sodom Dam removal. Staton Construction (Eugene) provided demolition services for the dam's removal. Other contractors involved with the project's construction include: Heritage Research Associates (archaeology services), Bond Butte Quarry (rock for riffles), Knife River (rock for riffles), Jim Althaeuser Trucking, Cascade Timber Consultants (trees for large wood installation), Rain for Rent (water diversion system to maintain gravity flows in the Sodom Channel during construction), Seven Oaks Native Plants, and Native Grounds Nursery.

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View across the Calapooia at the former Shearer Dam site. Photo credit: Denise Hoffert-Hay.



Sodom Channel flows freely now that construction is complete. Photo credit: Denise Hoffert-Hay.

## Upcoming Meetings and Events Public Welcome

Schedule updates available at [www.calapooia.org](http://www.calapooia.org)

Dec 14	Council Meeting, 7-9 pm Brownsville Community Room	Guest Speaker: Chris Seal, Fish & Wildlife Service Willamette Valley Wetlands: Opportunities to Build Voluntary Conservation Partnerships in a Diverse Agricultural Landscape
Jan 11	Council Meeting, 7-9 pm Brownsville Community Room	Guest Speaker: Peter Mathios, Ducks Unlimited Wildlife Artwork Relating to Wetland Conservation
Feb 8	Annual CWC Open House, 6:30-8:30 pm Brownsville Baptist Church	Guest Speakers: Jeremy Monroe, Freshwaters Illustrated; Cara Walters, OSU Monitoring; Denise Hoffert-Hay Dam removal synopsis, updates, and presentation of documentary
Mar 14	Council Meeting, 7-9 pm Brownsville Community Room	Guest Speaker: Nicole Maness, Willamette Partnerships Examining the Economic Benefits of Environmental Stewardship
Apr 11	Council Meeting, 7-9 pm Brownsville Community Room	Guest Speaker: TBA Cultural Resources in the Calapooia Watershed
May 4	Cultural Resources Tour Calapooia Watershed	Tour leader: Tony Farque, USFS Guided tour of Kalapuya burial mounds and historical sites
June 13	Council Meeting, 7-9 pm Brownsville Community Room	Guest Speaker: TBA Topic: TBA



Tara Davis, Executive Director

## Director's Diversion

The Council staff are thrilled to finally have a sign outside our new, modest office here in downtown Brownsville. We chose to include our short maxim on the bottom of the sign: *Working Together for Watershed Health*. I have been thinking about that motto and what it might invoke in the minds of the general public. Many know that we had been looking forward to summer 2011 construction season for years. Now that we can all take a deep breath, pat ourselves on the back, and feel proud that our agency partners are extremely pleased with the results of all our hard work, the quieter and more subtle success story has been getting out on top with even more habitat, outreach and education projects already in queue. I couldn't even tell you how many people ask me, "What next for the council?" While my common response has been "we are just getting started," daily I take pleasure at my desk in the calmness of that truth. The recipe for council success: the Oregon watershed council model is more about communities and culture than habitat logs and individual fish species. Our success is not in the simple removal of a barrier to fish that disturbs riverbed processes, but in the community process to arrive at that decision and commitment to ecological health, educating our neighbors, and supporting local economies. So I hope it's the "working together" on our sign that ultimately entices the passerby into our new place in the watershed.

To get back to the "what next?" burning question, just read the entire newsletter! Staff has continued to keep the plates spinning energetically up in the air over the last 6 months, and we intend to complete large scale vegetation management and planting- over 70 acres- to restore native riparian zones from Crawfordsville to Albany. Instream habitat installations are schedule for next summer, and we are investigating restoration of off-channel habitat along the Willamette mainstem. We are excited to announce we have formally "adopted" the once watershed council-less North Albany area and received formal approval from the Benton County Commissioners. We will also be providing technical assistance as requested in the Greater Albany area in lower tributary systems east and west of the Calapooia basin. A decade was required for the Calapooia Watershed Council to develop partnerships and interest in the middle and upper watershed. Similarly it could take years to see conservation movements in these newly serviced areas, but we believe that our recent Calapooia River-Albany Assessment and Project Identification Plan will provide guidance and foster landowner support, which is available for download at this website:

<http://www.calapooia.org/projects/albany-floodplain-enhancement/>

The CWC team wishes you all the best- enjoy your winter festivities and the New Year!



From Left: Whitney Smith, Tara Davis, Sarah Dyr Dahl and Denise Lott

### New Office Location

136 Spaulding Avenue, Brownsville

July proved to be a busy month for the Council. While coordinating deconstruction for Sodom and Shearer dams, as well as planning the Fish Passage Celebration, the Council packed up and moved into a new office downtown. The move has been beneficial in many ways, such as having work space to accommodate seasonal as well as permanent staff, easier interaction with the public, and storage room for equipment and files. Stop by to visit, peruse brochures and maps, and to receive answers to any questions you have regarding land use and restoration opportunities.

### Special Thanks!

Thank you to local artist David Lamb for painting the street sign and to contractor Paul Lott for installation of the sign in front of the building.



Tidbit's Mountain Hike, 2011



"Wet Your Whistle in the Watershed, 2011"  
Thanks for your contributions!"

# Shearer and Sodom Dam Removal Projects Complete

*Continued from page 1*

Design for the removal and installation of the engineered riffles was the result of a multi-year process led by the Calapooia Watershed Council with participation from the local community and local, state, and federal natural resource staff.

Installation of three engineered riffles comprised the bulk of the dam removal construction. From July until mid-October, more than 10,000 cubic yards of rock were imported to create the riffles. Large wood structures were added in order to provide bank stability, slow water velocities, and create fish habitat. Further bank stability was provided by the construction of vegetated soil lifts. These lifts temporarily control erosion through the use of coconut fabric and coir logs while providing a medium for the plantings to grow in, so that by the time the fibers of the fabric decay (5-7 years) the bank strength will be provided by the vegetation. Floodplain bench habitat was created at the project's upper end near the bifurcation. This bench habitat will narrow the summer inlet to the Sodom Channel and divert flows to the Calapooia River while still providing the wide channel needed to convey winter flood flows. Lastly, thousands of 1-gallon willows were planted on all the sloped banks along both sides of the project area to create a robust riparian zone.

We anticipate the site will experience some adjustments this winter as flows are conveyed through the Sodom Channel unimpeded for the first time in over 120 years. Oregon State University and Oregon Parks and Recreation Department will be conducting site monitoring to track site changes as winter progresses.

Shearer Dam removal was also completed on-schedule and on-



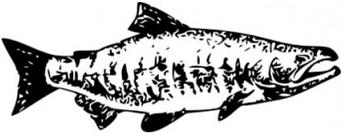
*Above:* Aerial view of Sodom Channel. Photo credit: Scott Wright, airplane ride provided by pilot Norm Younger.

budget. Staton Company was the general contractor and implemented the project in less than 2 weeks. Access to the dam site was achieved with installation of a temporary steel I-beam bridge layered with hardwood decking. Clean water bypass was set-up to utilize the natural slope of the site and take advantage of gravity to divert flows around the construction to a 24-inch corrugated plastic pipe and into the Calapooia River just downstream. Construction commenced and the concrete was removed in less than a week.

With the purchase of the Thompson's Mills by the Oregon Parks and Recreation Department in 2004, the Sodom and Shearer Dams were no longer needed to divert flows to the Mills. The former owner had a Federal Energy Regulatory Commission exemption that was set to expire. For it to be either surrendered or renewed, fish passage was required at the dams because there are two ESA listed salmon species in the Calapooia River: winter Steelhead and spring Chinook. Working with a multi-disciplinary team of agency staff and local stakeholders allowed this project to avoid a costly court-battle and arrive at an alternative that satisfies water users and provides fish passage at all flows for the first time in over 120 years. Funds for project implementation were awarded from the Oregon Watershed Enhancement Board. Measure 76 was approved by voters in the November 2010 election to continue the use of lottery funds for watershed health and implementation of the Oregon Plan. American Rivers and the NOAA Restoration Center provided funds for design and technical services for removal of both dams. ♦

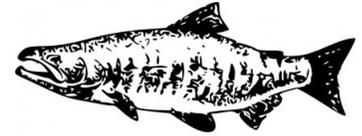


*Above:* View of Sodom Dam before and after construction. Photo credit: Scott Wright.



## Restoration in Your Backyard

*Sarah Dyrdaahl, Projects Coordinator*



*“To promote and sustain the health of the watershed and its communities.”*

Restoration efforts continue along the 8-mile section of the Middle Reach Calapooia River with Reach 2 and Reach 3 project implementation. Reach 2, a moderately urban section of river that flows through downtown Brownsville, mostly consists of residential dwellings and existing City infrastructure, although it also retains a few rural farm tracts. Impacts such as rip rap revetment installation, riparian buffer removal and simplification, and channel manipulation are evident throughout this reach. Reach 3 begins just downstream of Brownsville, with farming being the primary land use.

In 2008, the Council completed an assessment of the Middle Reach. Landowners then came to the table to identify mutually



*Top Left:* Swale enhancement near Brownsville. The re-contoured landscape will support Calapooia River flood flows at the 2-5 year flood events and will be planted with native vegetation during winter 2012. This swale will not only recharge the groundwater, but will also provide habitat for wildlife.

*Top Right:* Large wood habitat structures upstream of Brownsville. Wood is buried and ballasted with boulders to limit movement during high flows. Logs with attached rootwads are completely submerged to provide habitat benefits during all flows.

*Bottom Right:* Installation of large wood habitat structures. This backwater habitat provides off-channel refugia (slow water resting and rearing areas for juvenile salmonids and other aquatic organisms), especially during high flows.

beneficial projects and activities that preserve the more urban qualities of this reach while also benefiting watershed processes and function. Completed projects include in-stream, floodplain, and riparian restoration. Project funding came from the Oregon Watershed Enhancement Board, the Conservation Reserve Enhancement Program, Meyer Memorial Trust, and significant landowner contributions.

Upstream of Brownsville, five large, wood habitat structures were installed to provide off-channel habitat for juvenile fish, which includes low velocity refuge for resting and rearing as well as protection from predators. In the heart of Brownsville, a floodplain swale was restored to historic contour to allow for 2-5 year flood events to utilize the adjacent floodplain. We were fortunate to hire two very skilled local operators to complete this work. Jason Curtis of Curtis Excavation and Bodie Israel of A&B Excavation performed the entire earthwork on these projects.

Reach 3 in-stream projects have taken place on the properties of nine different landowners, and have included riparian buffer planting, bank stabilization,

and construction of log jams. These projects will help to eliminate bank erosion and reduce sediment load in the Calapooia, creating desirable fish habitat while preventing the loss of property along the riverbank.

In addition to the in-stream projects, the Council has partnered with landowners to complete significant revegetation efforts in Reaches 2 and 3. Over 32 acres of riparian forest is being restored to native big-leaf maple and cottonwood gallery forest through exclusion of livestock (nearly a mile), invasive weed control, and native riparian planting, which will occur during winter 2012 and 2013. ♦



## Restoration in Your Backyard *continued from previous page*

### Opportunities for Involvement

If you are interested in restoration on your property, there are many resources to help you get started:

- Visit the CWC website at [www.calapooia.org](http://www.calapooia.org) and click Landowner Toolbox for a myriad of restoration resources, including information on Conservation Reserve Enhancement Program (CREP) enrollment
- Attend the Dec. 14th Council meeting for a presentation by Chris Seal, USFWS:
  - *Willamette Valley Wetlands: Opportunities to Build Voluntary Conservation Partnerships in a Diverse Agricultural Landscape*
- Contact us at [calapooia@peak.org](mailto:calapooia@peak.org) for more information

### Landowner Responses to Restoration

*Question: How do you feel about the restoration work that has taken place on your property?*

"I'm elated. The bank seems to be stabilized, and as a result I won't be losing anymore of my property to erosion. I have received a great benefit from working with the Council."

- Landowner Donny Nealon, on the bank stabilization project on his property in Reach 3

"[The contractors] did a great job. They were timely and cleaned up their work site. I've always been pro-conservation, but the Council made the work easier for me due to their connections. Otherwise, it could have been a daunting task on its own."

- Landowner Susie Ross, on the floodplain reconnection project on her property in Reach 3.



*Above:* Contract crews "mow" blackberry along the Calapooia River. This swale has intact overstory trees such as Oregon ash, black cottonwood, and big leaf maple. However, invasive understory plants, such as blackberry and English ivy, reduce the functional value of this feature by eventually killing the trees and preventing native seedlings from establishing.

*Right:* Aerial view of Donny Nealon and Susie Ross's properties on either side of the Calapooia River (Nealon property on left, Ross property on right). The middle, forested area on the Ross property required restoration, as the understory had been dominated by invasive blackberry. The backwater area was reconnected to the river to provide critical salmonid habitat.



## Winter Recreation Activity: Birdwatching in Your Watershed

Whitney Smith, Program Assistant

Winter is actually is the best time of year for seeing two groups of birds – waterfowl and birds of prey.

### Birds of Prey

“Raptors” and “birds of prey” are interchangeable terms describing two groups of birds: the owls and all the hawk-like birds such as eagles, hawks, falcons, osprey, kites, and accipiters. While it is difficult to view owls based on their nocturnal habits, winter is a great time of year for viewing all of the other raptors. The mild winter climate of the Willamette Valley results in large populations of rodents, migratory waterfowl, and shorebirds, which are major food sources for predatory birds.



#### Look for These Birds of Prey

Red-Tailed Hawk	Northern Harrier
Peregrine Falcon	Sharp-Shinned Hawk
Cooper’s Hawk	American Kestrel
Bald Eagle	Merlin



Look for raptors near wetlands, along the edges of fields, and on tall perches such as telephone poles or snags.

Top Left: Cooper’s Hawk

Left: American Kestrel

Right: Northern Harrier



### Shorebirds and Waterfowl

The Willamette Valley is prime winter habitat for both waterfowl, such as geese and ducks, and shorebirds, such as Killdeer and Dunlin. Historic riparian processes supported large populations of these birds, as the Willamette River meandered freely in the valley and prairies flooded in the winter. However, channelization of the Willamette and the draining of fields for agricultural use has resulted in wetland loss. Only 1% of this native prairie remains today (NRCS/USGS 2006). Still, many species can be found in the winter foraging in flooded grass seed fields and other wet areas.



#### Look for These Shorebirds and Waterfowl

Dunlin	Killdeer
Common Snipes	Great Egret
Northern Pintail Duck	Northern Shoveler
Tundra Swan	Green-Winged Teal



Top: Northern Shoveler

Left: Northern Pintail Duck

#### Online Resources for Birdwatching and Wetlands

Willamette Valley Birding Checklist:

<http://oregonbirdingtrails.org/wyguide/Birding%20Checklist.pdf>

Provided by Oregon Birding Trails and featuring over 250 species.

Importance of Willamette Valley Farmlands to Wintering Shorebirds:

[http://fresc.usgs.gov/products/papers/1712\\_Taft.pdf](http://fresc.usgs.gov/products/papers/1712_Taft.pdf)

Provided by the NRCS and USGS (2006).

Wetland Restoration Projects Around the Willamette Valley:

<http://www.ohjv.org/projects/willamette.html>

Provided by the Oregon Habitat Joint Venture.

### Annual Christmas Bird Count

Monday, Dec. 26th, 7:00am • Meet at the Pioneer Villa

Data collected from this census, involving thousands of bird enthusiasts nationwide, helps the Audubon Society and other organizations to assess the health of bird populations and guides conservation action.

To get involved, contact:

Barbara Combs

bcombs232@gmail.com

(541) 689-6660



## Watershed Fun



### ACROSS

3. A large, aquatic rodent of the genus *Castor*, having thick brown fur, webbed hind feet, and a broad, flat tail.
5. Any of various four-winged insects of the Trichoptera, found near lakes and streams.
7. Last name of long-time CWC chairman.
8. A body of water that is held back by an obstruction such as a dam or tide.
12. A flowing together of two or more streams.
14. The water level, or stage, at which a stream, river, or lake is at the top of its banks.
16. The oldest water-powered grain mill in the state of Oregon.
17. Location of Calapooia headwaters and wild flower hikes.
18. An improvement that makes something more agreeable.
20. The anadromous variety of the rainbow trout, having silvery, unstriped sides.
21. A place, typically a large, deep pit, from which stone or other materials are or have been extracted.
22. The fruit of an oak, consisting of a single-seeded, thick walled nut set in a woody, cuplike base.

### DOWN

1. To divide into two parts or branches.
2. Distinguished from canoeing by the sitting position of the paddler and the number of blades on the paddle.
4. A cavity formed by cutting, digging, or scooping.
6. To put into effect according to some definite plan or procedure.
9. Any of various deciduous trees or shrubs of the genus *Salix*, usually having narrow leaves.
10. A bringing back to a former position or condition.
11. Avenue where the new CWC office is located.
13. Water beneath the earth's surface, often between saturated soil and rock, the supplies wells and springs.
15. A series of ascending pools providing a passage for salmon to swim upstream past a dam.
19. Park where the Calapooia River joins the Willamette River.

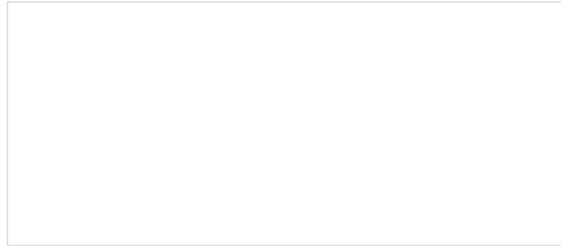
*Answers on [www.calapooia.org](http://www.calapooia.org) home page after Dec. 7<sup>th</sup>.*



**CALAPOOVIA WATERSHED  
COUNCIL**

PROVIDING OPPORTUNITIES FOR  
MEMBERSHIP TO COOPERATE IN PROMOTING  
AND SUSTAINING THE HEALTH OF THE  
WATERSHED AND ITS COMMUNITIES.

P.O. Box 844  
Brownsville, OR 97327



*Open House  
February 8th*

**Annual CWC Open House**  
**Wednesday, February 8th**  
**6:30-8:30 PM**

*Special Presentations of the Fish Passage Completion*  
*Jeremy Monroe, Freshwaters Illustrated*  
*Cara Walters, OSU Dept. of Biological & Ecological Engineering*  
*Denise Hoffert-Hay, Project Manager-Sodom & Shearer Dam Removals*

**Brownsville Baptist Church**  
*27910 Seven Mile Lane, Brownsville*