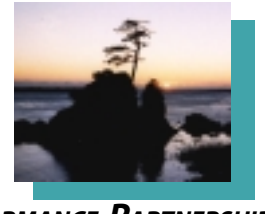


# The Watershed

Winter 1999-2000

TILLAMOOK COUNTY PERFORMANCE PARTNERSHIP  
TILLAMOOK BAY NATIONAL ESTUARY PROJECT



## Welcome Back to *The Watershed*!!

The *Watershed* is back! For those of you who enjoyed keeping up on the activities of the Tillamook Bay National Estuary Project (TBNEP) in years past, you will be glad to know that the TBNEP is alive and well. Much has happened since this newsletter was last published - most notably, the Comprehensive Conservation and Management Plan is complete and has been approved by both Governor Kitzhaber and Environmental Protection Agency Administrator Carol Browner. On February 9<sup>th</sup>, we will celebrate this approval and over five years of community cooperation at its best with a signing ceremony, in the Tillamook High School Auditorium.

The TBNEP is now administered by a new county department called the Performance Partnership. Its motto is "environmental restoration and economic development." This true partnership of nearly 150 landowners, fishermen, resource managers, educators, and interested citizens works to address the CCMPs four priority problems. The goal is to bring solutions to these concerns while supporting the local economy with the creation of new jobs and training opportunities.

Many on-the-ground projects are in progress, including streamside fencing and planting, water quality monitoring, rebuilding of forest roads and bridges, fish-friendly tide gate installations, and development of a new agricultural waste management program.

Local schools are actively seeking ways to incorporate environmental stewardship into their curriculum. These efforts will receive a boost in January, 2000 with a Natural Resources Education Specialist, a position that is being jointly funded by Portland State University, Tillamook Education Consortium, and TCPP. The person in this position will increase student and teacher exposure to environmental science and build upon that understanding through community-based action.

We have an obligation to protect the natural beauty of the Tillamook Bay Watershed for future generations; and as a community we have accomplished a great deal. Together we will continue to move forward for the benefit of all who call this area home.

The Tillamook Bay  
National Estuary Project's  
Comprehensive  
Conservation  
and Management Plan (CCMP)  
identified the following  
***Priority Problems:***

- 1) Key Habitat
- 2) Water Quality
- 3) Erosion & Sedimentation
- 4) Flooding



## ***Tide Gates Designed to Help Young Fish***

The Tillamook County Performance Partnership (TCPP) has embarked on a program to help young salmonids as they make their way to the ocean.

This fall, eight fish-friendly tide gates were installed in levees along rivers and sloughs in the lower river basins. These tide gates are designed to allow for improved water flow between the area behind the levees and the main rivers or sloughs. The improved flow does two things: 1) provides an acceptable flow for the young fish to move into the area behind the tide gate and 2) increases the water quality of the water behind the tide gates. These improvements create an improved environment for the young fish (smolts). Most of these areas have relatively healthy riparian areas, meaning there are trees, shrubs and other vegetation down to the stream, providing a rich environment for insects and other food sources the smolts take advantage of. The improved conditions also provide cover for the fish. Once the fish leave the area behind the tide gates, they must make their way to the ocean through Tillamook Bay. This is a perilous journey because they are in the middle of the food chain, and everything around them is looking for a bite. By providing more areas for the fish to feed and grow in, it is hoped that they will be much stronger when making their trip to the sea.

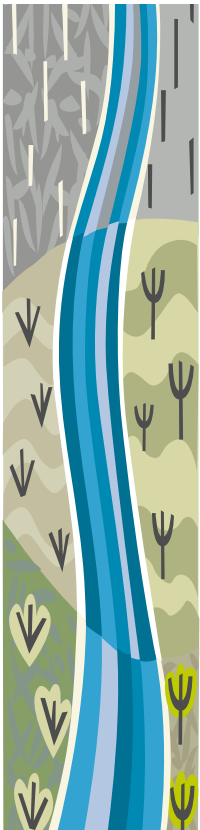


## ***Chum Round-Up for ODFW Research***

As cool mist filtered through the leaves and needles of overhanging trees, our small troop of volunteers descended a steep trail to the river, hauling boots, nets, poles and cameras. A great blue heron, perched purposefully on a nearby rock, squawked its dismay at our intrusion as it flapped regally up the river and disappeared around a bend. All was quiet and peaceful for a few moments. Then, suddenly, the river in front of us erupted violently as wetsuit-clad arms and legs twirled furiously through the water like a motorized marionette. It was none other than Oregon Department of Fish & Wildlife (ODFW) Research Biologist, Tim Dalton, attempting to stir up the salmon we had come to catch, tag and release for his salmonid life cycle monitoring project. ODFW is developing a database to assess the health and abundance of salmonid populations in the Tillamook Bay watershed, and Tim is the man with the passion, and expertise, needed to get the job done. It's hard to resist such infectious enthusiasm, so we all jumped in, nets at the ready; while some of us formed a static 'v' with one net at the end of a pool in the river, others sloshed across the powerful current with another, slowly closing the gap in an attempt to outsmart these beautiful aquatic creatures. After several such endeavors, the score was fish: a dozen or so, humans: zero. By the end of the day, however, several had been marked with a tiny plastic tag near the dorsal fin, and released unharmed. This study is being conducted as a component of the TBNEP's Comprehensive Conservation and Management Plan, which was approved by EPA Administrator Carol Browner in December, 1999. Funded largely by a grant from the Oregon Watershed Enhancement Board, Dalton plans to correlate data he compiles with that from a study being done on fish use in the estuary by Bob Ellis, Ph.D. of Ellis Ecological Services, Inc.. Eventually, they hope to have a better understanding of the survivability throughout the life history of salmonid species that they study, something not previously accomplished in Tillamook Bay.

## **The Return of the StreamKeepers**

During the past few months, you may have noticed someone parked at the side of Miami River Road. This person gets out of the car, rummages in the back, and emerges with some rope, a 10-foot length of 2" by 2", and a little plastic bottle. "What's going on here?" you wonder. Next, he walks down to the river, attaches the bottle to the end of the wood, and extends it out into the river, filling up the bottle, and bringing it back to shore. He puts the cap on the bottle, puts his gear in the back of the truck, and is gone down the road.



Don't worry, you didn't just see St. Nick, lost in Tillamook County. You saw John Gettman, a volunteer for the Tillamook County Performance Partnership's citizen water quality monitoring program, "StreamKeepers." John and seven other local residents venture into the watershed five times per month to collect water quality samples from the rivers and streams that flow into Tillamook Bay. During the fall of 1999, these volunteers collected water samples that were then analyzed for fecal coliform bacteria concentrations. Starting in winter 2000, they will also collect other data, including temperature, total dissolved solids (TDS), pH, and turbidity.

The bacteria sampling method is a user-friendly design that provides accurate, reliable results. The samples are analyzed at the TCPP office in Garibaldi, and the results forwarded to the DEQ. (Continued)

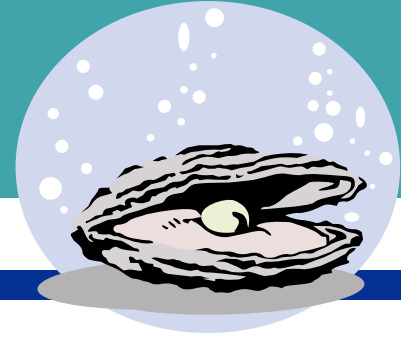
## **New Director Takes Helm**



Richard Felley, a long time Tillamook County resident, took the helm as Director of the Tillamook County Performance Partnership (TCPP) in spring 1999. He replaced Steve Nelson, who left to pursue ecosystem protection work in the Russian Far East. As the new Director, Felley oversees implementation of the Comprehensive Conservation and Management Plan (see Page One).

His first duties were to hire new staff, and ensure consensus among TCPP members. The greatest obstacle he faces is finding ways to finance the ambitious CCMP, which calls for improving habitat and water quality, while decreasing sedimentation and flooding. Sounds simple, right? It's not. It's also not cheap. In fact, the estimated implementation cost for the next ten years is between \$80 million and \$160 million. Much of this cost is the responsibility of state agencies, including Oregon Department of Forestry and Oregon Department of Fish and Wildlife. Still, the Performance Partnership must seek out funds from federal and state sources, as well as private and non-profit groups.

The new Director comes to the TCPP from the Tillamook Soil and Water Conservation District, where he was able to develop strong community ties and secure funds for projects. As the new staff members learn more about the program, and develop good working relationships with community members, implementation of the CCMP will move into full swing. His experience will no doubt be of great benefit as the Performance Partnership takes action for environmental restoration and economic development.



## **4-Year Research Project Reaches Half-Way Point**

In 1998, the TBNEP initiated a four-year study of the ecological interactions among oysters, eelgrass, and burrowing shrimp. The relationships between these three estuarine species are not well understood, but could play an important role in decisions about how we manage our estuary. The study, now at the half-way point, was initiated to address concerns about how these three estuarine species affect each other. Researchers, with the help of citizen volunteers, measure the densities of all three species at three sites in the estuary. In addition, researchers are conducting “manipulative experiments,” which involve placing oysters into an eelgrass bed, planting eelgrass into an oyster bed, and planting both oysters and eelgrass into bare mud flats. All of these activities take place in the intertidal portion of the estuary.

The four-year duration should be long enough to answer questions such as, “what are the major forcing factors affecting the spatial and temporal variability in eelgrass distribution in Tillamook Bay?” and “how does the presence of burrowing shrimp affect oysters and eelgrass?”

The interactions and ecological functions of these species can be a bit confusing. Eelgrass beds are important breeding and rearing grounds for juvenile salmon, herring, dungeness crabs, and other aquatic species. Black brant and other birds depend on eelgrass beds for forage. Oyster farming started in Tillamook Bay in the 1920s, and at one time supplied more oysters than anywhere else in Oregon. Burrowing shrimp are native to Tillamook Bay, and dig into the sediment, sometimes causing oysters to sink in and suffocate.

While it is thought that oysters (and oyster farming) can have a negative effect on eelgrass beds, oyster ground culture also provides good habitat for a variety of fish and shellfish, including gunnells and juvenile Dungeness crabs. Until a better understanding of how these species interact with each other, the Oregon Department of Fish and Wildlife imposed a moratorium on new commercial shellfish leases within Tillamook Bay.

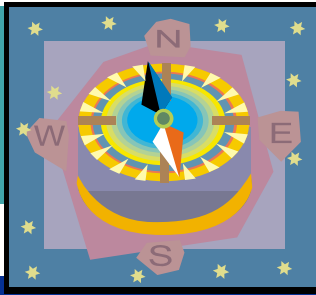
For more information on this subject, please contact the Tillamook County Performance Partnership at 322-2222.

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(Continued from *StreamKeepers*, page three)  
Leo Adams, a Trask River resident, started sampling for bacteria in the fall of 1998. In 1999, the TCPP was awarded a small grant to buy more sampling materials and even reimburse the volunteers for mileage. Now, the team has grown to include Leo Adams and Sherry Fosmark (Trask), John Gettman and Rich Felley (Miami), Phaedra Bennett and Russ Patterson (Kilchis), and Katrina Symons and Ivan Boge (Tillamook River). The Tillamook County Creamery Association samples at 10 sites along the Wilson River, and uses the same Colilert method for sample analysis.

This volunteer sampling program allows us to collect high-quality data about our rivers and streams. The state agencies lack the finances and time to sample frequently, so by utilizing these concerned Tillamook citizens, we can keep better track of the water quality in the watershed.

If you want to learn more about the StreamKeepers program, or have any questions, please contact the TCPP office at 322-2222.



## **Geographic Information Systems: Data, Maps, Project Planning, and Public Access**

What is a geographic information system? It is a system that uses geographic data, information about geographic features, a computer, and a trained user to analyze geographic data, and create maps.

GIS represents the real world in a usable form



The Tillamook Bay National Estuary Project/ Tillamook County Performance Partnership (TBNEP/TCPP) uses Geographic Information Systems (GIS) to do many things. For instance, we use GIS to help plan where to do restoration projects, to analyze the relationship between land use practices and water quality issues, and to report on where projects are occurring in the Tillamook Bay Watershed.

The TBNEP/TCPP and the Tillamook County Information Services Department have been creating a project to make GIS data and tools available and accessible to the public. This project has created a new internet site and modified GIS data to enable users to view and query GIS data for Tillamook

County. This internet site, although still in the development phase, allows anyone with access to the internet and a web browser program to view and query GIS data. In other words, you do not need to have a GIS program or the GIS data on your computer! The internet address for the site is [gisweb.co.tillamook.or.us](http://gisweb.co.tillamook.or.us). So, go ahead and visit the internet site, view and query the GIS data, and send comments to the contacts listed on the site.

The Tillamook Coastal Watershed Resource Center (TCWRC), a local non-profit organization, is located in Bay City at the Tillamook Bay Community College Administrative Offices. Computers, data, and GIS programs are available there for public use, for those who wish to use actual GIS programs. For more information on the TCWRC call 377-4000.

### ***TILLAMOOK COUNTY PERFORMANCE PARTNERSHIP***

*(Tillamook Bay National Estuary Project)*

613 Commercial / PO Box 493

Garibaldi, Oregon 97118

Voice 503-322-2222

Fax 503-322-2261

Email: [tcpp@co.tillamook.or.us](mailto:tcpp@co.tillamook.or.us)

Website:

<http://osu.orst.edu/dept/tbaynep/nephome.html>

#### **Staff:**

**Rich Felley**

Director

**Mary Barczak**

GIS Analyst

**Suzan Greenwood**

Office Specialist / Outreach & Education

**Kim Hatfield**

Scientific & Technical Coordinator

**Kerry Griffin** (Contractor)

Marine Science and Policy Specialist

**Don Reynolds** (Contractor)

Tidegate Program Coordinator

## Coming Events

- ☞ *Nestucca Bay Clean - Up*, Feb. 19th sponsored by the Nestucca/Neskowin Watershed Council. Call 398-5631 for more information.
- ☞ *SOLV Oregon Beach Clean - Up*. Saturday, April 8, 10am-1pm. Call 322-2222 for information.
- ☞ *Tillamook Bay Watershed Council* - meets the last Tuesday of each month, 7pm at the Tillamook OSU Extension office. Call 377-4000 for more info.
- ☞ *Nestucca / Neskowin Watershed Council* - meets the third Thursday of each month, 7pm at the Nestucca Valley High School Library in Cloverdale.
- ☞ *Netarts Watershed Council* - For meeting information and general information call 842-4593.
- ☞ *Lower Nehalem Watershed Council* meets the second Thursday of every month at the Pine Grove Community Center, Manzanita. Call 368-7424 for more information.



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613 Commercial St. / PO Box 493  
Garibaldi, Oregon  
503.322.2222  
tcpp@co.tillamook.or.us