Curry Currents

Summer 1999 Volume 1, Issue 4

Maintaining Riparian Plantings

By Bruce Follansbee

We establish riparian plantings for a variety of reasons including: providing fish and wildlife habitat; bank stabilization; producing large woody debris to help structure the stream channel and retain spawning gravel; producing fine organic material (leaves and twigs) to support the aquatic food web; providing shade for the stream channel to keep water temperatures low; keeping flood debris and large wood in the channel during floods; and for windbreaks.

Many of our plantings are in pastures or other sites where there is considerable competing vegetation. Competing vegetation can either take all of the water away from the seedlings or it can overgrow and smother the seedlings. During the first one to two years, the young tree's roots are in the same soil zone used by grasses, blackberries and weeds for their water and nutrients. After this period, the tree roots grow into a deeper zone where they are not in direct competition with those plants. During late summer, the competing vegetation can remove so much of the water from the soil that the trees will die. For this reason we need to keep a one to two foot radius circle around the tree seedling free of competing vegetation during the first two growing seasons. This can be done through using a weed eater or clippers to remove the competing vegetation or through placing a weed mat around the tree. A typical weed mat is a 2 foot by 2 foot square of tar paper or heavy cardboard with a slit to the middle so it can be fitted around the stem of the seedling. Curry SWCD will do a trial during the Spring 2000 tree planting season to compare weed mats with cutting back competing vegetation. *Continued on Page 3*

Watershed Projects Report

By Harry Hoogesteger

Curry County watershed councils are busy implementing a number of projects this summer. The projects fall into four broad types: 1) fish passage; 2) riparian vegetation; 3) fencing; and 4) large wood.

Fish passage: A major part of the work we are doing is improving fish passage. Barriers such as improperly placed culverts can totally prevent fish from reaching prime spawning and rearing habitat. At Deep Creek on Pistol River, a culvert is being replaced with a bridge, in a cooperative project with Curry County Road Department. On Cedar Creek, a tributary of Elk River, an undersized culvert is coming out of a potentially productive coho stream, and being replaced by a railroad flatcar bridge. Culverts are also being upgraded on Lower Rogue tributaries such as Lobster Creek and Indian Creek. Private landowners in each case are providing valuable match to ensure project success.

Riparian vegetation: Riparian trees such as conifers and hardwoods provide a number of benefits to the watershed. Trees help hold soil, reduce erosion, shade streams, lower water temperatures, and provide organic material to the stream which helps feed juvenile fish. This summer we have a riparian maintenance crew that is watering and weeding around riparian trees we have planted (see articles elsewhere in this issue). Lower Rogue Coordinator Bruce Follansbee has also started a native cottonwood plantation which will help ensure a variety of species in our riparian areas in the future. Cottonwoods can complement alders, conifers, and willows in providing healthy and diverse vegetation along our streams and rivers.

Fencing: Dozens of landowners in Curry County are voluntarily fencing their lands to keep livestock out of riparian areas. This summer, we are doing cooperative fencing projects in almost every one of Curry's watersheds: Winchuck River; Chetco River; Pistol River; Lower Rogue River; Elk River; Sixes River; Floras Creek; and Morton Creek. Again, private landowners are providing match with their labor and equipment to maximize the benefits of these projects.

Large wood: Fifteen project sites have been selected for large wood placement this summer, under the direction of ODFW Habitat Biologist Howard Crombie. Large wood projects usually involve heavy equipment such as an excavator to place the logs, and whole trees that are often up to 50-60 feet long. This large wood, placed in rivers and streams, protects young fish from predators, traps spawning gravel, improves rearing habitat, and scours deep pools for overall habitat complexity.

All these projects are undertaken by local watershed councils, working with Curry County contractors, property owners, and restoration biologists. For more information, or if you are interested in doing a stream restoration project, contact the SWCD & Watershed Office at 247-2755.

Editor's Note

This publication was produced and supported by grant funding from the Oregon Watershed Enhancement Board (OWEB).

Each issue of Curry Currents has a theme. The theme for this issue is riparian areas

Riparian areas are the plant communities along the margins of streams, rivers and lakes.

Maintaining Riparian Plantings
By Bruce Follansbee (Continued from page 1)

(Continued from page 1)

Competing vegetation can smother the tree seedlings if it grows much faster or taller than the seedlings. Locally, blackberries are the most serious competitor that overgrows seedlings. On most sites, controlling blackberries for two years will allow the seedlings to grow tall enough that they can then overtop blackberries in the third growing season and eventually shade the blackberries out. Blackberries are best controlled by cutting them back using a heavy duty weed eater, loppers or hand pruners. They should be cut back at the time of seedling establishment and again midway through the growing season. During the second year, periodic site visits will help you to monitor blackberry growth and the timing for cutting them back.

It is often necessary to water the seedlings several times during mid- to late summer to ensure that the trees have enough water to both survive and grow vigorously. A small circular berm one foot out from the tree helps to keep irrigation water next to the tree so it sinks in to the maximum depth. This means the tree gets more of the irrigation water and encourages it to grow deeper roots.

Another factor to consider in establishing riparian plantings are the heavy northwest summer winds. These winds can kill plants by drying them out when soil moisture levels are low or cause direct physical damage. By clearing only a one to two foot radius circle around the tree seedlings, the remaining vegetation breaks up the wind and lessens its drying effect on the seedlings. On some difficult sites where there is no other vegetation to protect the seedlings, it may be necessary to first establish a nurse crop to break up the wind. Nurse crops are usually planted the year before planting trees to allow them to establish and grow to a size where they can help protect the trees. The best nurse crop is a tough native shrub that also has habitat value and will not invade surrounding lands. Coyote bush is widespread locally and can be planted using an unrooted cutting during the dormant season.

Through using the appropriate planting technique for a given site you help the tree seedlings to establish themselves quickly in the landscape. Timely weeding and watering of the plantings results in high survival rates and vigorous growth, which in turn helps the trees overtop and suppress competing vegetation.

Watershed Council Meetings

Floras Creek *- 1st Tues. 7PM- Langlois School*
Chetco River- 1st Weds. 7PM, 555 5th St. Forest Service Building,Brookings
South Coast Coordinating Council *- 1st Thurs. 7PM, Extension Service Building, Fairgrounds, Gold Beach*
Lower Rogue - 2nd Thurs. 7PM, Extension Service Building,Gold Beach
Port Orford *- 3rd Weds. 7PM, City Hall*
Elk / Sixes - 4th Weds. 7PM
Hunter Creek/Pistol *- 4th Thurs. 7PM, Extension Service , Gold Beach*

Some special meetings are held at Gold Beach City Hall. Contact the watershed office for information - 247-2755

GWEB changed to OWEB

One of the changes that will take place as a result of the Measure 66 Legislation is that the Governor's Watershed Enhancement Board (GWEB) will now be called the Oregon Watershed Enhancement Board (OWEB). This is the Board that funds a lot of our watershed projects. State funds will be distributed through this board during the next two years. Curry resident Wayne Krieger has been the Board of Forestry representative on the GWEB Board.

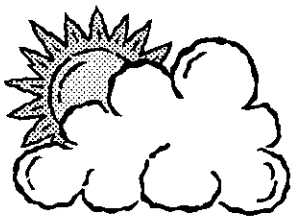
What Happened at the Legislature?

Hear what Representative Messerle, Senator Tarno and Governor's Representative Ken Bierly have to say. October 7 - 7 PM at Gold Beach City Hall, Ellensburg Avenue (Highway 101) They were there!

Riparian Shade Assessments – What do they tell us?

By Cindy Ricks

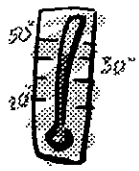
Summer water temperatures of many South Coast streams exceed the optimum for rearing juvenile salmonids (64 degrees F). Over the next two years, as we assess the influence of riparian shade on stream water temperature, landowners may be contacted to request access to selected field sites.



Summer stream temperatures are influenced by a variety of conditions, including:

- Shade from riparian vegetation or hillslopes
- Stream flow
- Inflows of cool groundwater
- Heating by bedrock, boulder, or cobble stream beds

Stream water temperatures are highest between mid-July and mid-August, after the sun reaches its highest angle (summer solstice), but before stream flows drop to the lowest level of the year. For this critical time period, we have a simple instrument that projects streamside shade onto a chart showing the sun's path across the sky. With this Solar Pathfinder in the middle of a stream channel, one can estimate the amount of solar radiation blocked by shade for each hour of the day on August 1st. Rather than measure shade along every stream, stream segments are grouped by size, channel type, orientation, and vegetation. Riparian and channel features obtained from maps and aerial photos are verified on the ground. Tree height, shade density and overhanging vegetation are measured and species providing shade are identified at field sites.



Stream shade can be calculated from the height of the trees casting a shadow, their distance from the stream, and the orientation and width of the stream. If vegetation is too short, or the stream is too wide, solar radiation will heat the water. Wide and shallow channels can result when sediment input overwhelms the transport capability of the stream. Channels can also widen in response to down cutting and adjustments by bank erosion. Shallower streams heat faster because stream bed materials absorb more heat to be released later in the day.

We expect to find more shade on narrower streams and less on wide rivers. The assessment highlights stream segments that have a high potential for shade, but currently lack riparian vegetation. Alder stands which may have replaced the original taller conifers are mapped. Areas are located that have not historically supported tall conifers such as unstable stream banks, bedrock canyons, serpentine soils, and extreme climatic conditions.

Landowners and watershed councils may use existing and potential Riparian Shade Maps to develop their own locally-based Water Quality Management Plans on State listed water quality-limited streams. Having a realistic picture of what is possible in the watershed may help avoid a State or Federal "blanket approach" to riparian buffer protection. The assessment also provides supporting data for landowners that want to convert riparian stands to longer-lived and taller conifers. As one module of an overall Watershed Assessment, Riparian Shade Maps will focus our attention where riparian vegetation improvements will be most beneficial. Limited funds can be directed to landowners interested in fencing, planting, off-stream watering, tree maintenance, and stand improvements

Curry County's Riparian Buffer Zone

By Lucie La Bonte'

"Everything else is against the fish so we decided to do something for the fish", said Commissioner Lloyd Olds when discussing Curry County's Riparian Corridor Buffer Overlay Zone (RB) passed in 1998. The ordinance **only** affects lands outside city jurisdiction that are covered under Curry County's Comprehensive Plan.

The purpose of the sections that have been added to the zoning ordinance, is "to insure that riparian corridors identified in the County's Goal 5 water resources inventory are protected as habitat for fish, other aquatic life and wildlife, to control erosion and limit sedimentation, and reduce the effects of flooding. The provisions of this section", the purpose goes on to state," attempt to accomplish these goals by excluding structures from buffer areas around lakes, streams and associated wetlands, and by prohibiting vegetation removal or other alteration to those buffers."

"Everything else is against the fish so we decided to do something for the fish"
County Commissioner Lloyd Olds

The ordinance requires a 75 foot buffer from the top of each bank of all streams within a river drainage basin with a principal river or creek that has an average annual stream flow greater than 1000 cubic feet per second (cfs). Along all lakes and streams within a river drainage basin which is a principal river or creek and has an annual stream flow of less than 1000 cfs the riparian corridor shall be 50 feet. This means that the Rogue and Chetco Rivers and all their tributaries have a 75 ft. buffer zone. All other waterways have a 50 ft. buffer zone.

"Flood gullies are not included", according to Commissioner Olds. "If there is a stream that is dry it does matter". Oregon Department of Fish and Wildlife will know whether or not the stream is a fish-bearing stream. Streams that show evidence that fish are in them even if they are dry for a bit, count. "There are few *real* dry washes in Curry County", says Olds.

According to Olds, a lot of what was adopted is in the Forest Service regulations. "Inventoried riparian corridors located on federal land are not subject to the provisions of this Section unless the riparian corridor identified in this subsection extends onto non-federal land", reads the ordinance.

"If we are going to do something, we should do it before there is damage", concludes Commissioner Olds.

Copies of the ordinance can be obtained through the Curry County Planning Department.

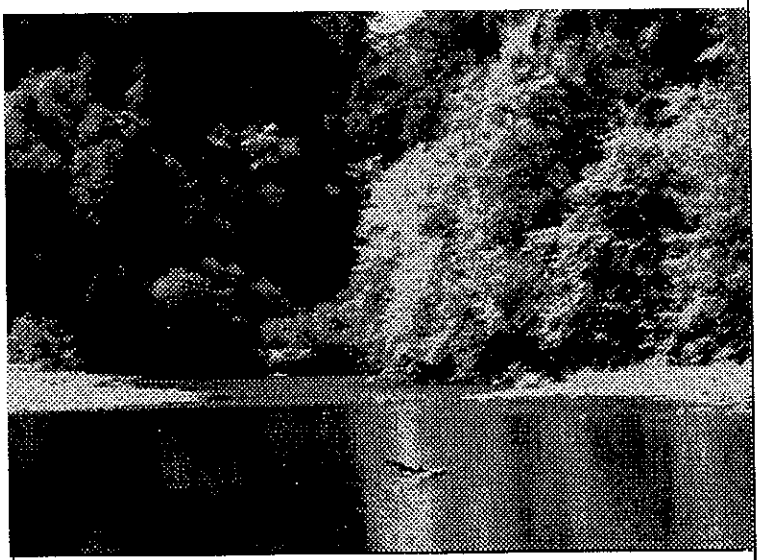


Photo of the Chetco River by Candace Pigott borrowed from the Chetco River Watershed Council www page. The URL is: www.oregoncoast.net/chetco/home.html

OREGON YOUTH CONSERVATION CORPS (OYCC) 1999 SUMMER PROJECT SUMMARY

By Ralph Scott

This article includes a brief summary of the OYCC program being run this summer through the SWCD and local watershed councils. Ralph Scott is the crew leader, and has been for the last five years.

PROGRAM GOALS

1. Provide employment opportunities for local youth who need a beginning work experience in an educational milieu.
2. Provide conservation oriented services to the general public with emphasis on enhancement of the environment and natural resources in their community.
3. Provide education and training through the youth's work experience in the areas of conservation practices and the acquisition and development of responsible work ethics.

FUNDING SOURCES

OYCC grant moneys are provided for the program through the Curry Soil and Water Conservation District, Curry County Commission on Children and Families, and the Oregon Watershed Enhancement Board..

DURATION of SUMMER PROJECT

Seven weeks of employment from June to August.

WORK PROJECT PROVIDERS and JOB DESCRIPTIONS

1. *South Coast Watershed Council*: Removal of competitive weeds from small conifers planted along the riparian zones of coastal streams and tributaries throughout the county; assisting with cottonwood plantations in site preparation and tree maintenance; and assisting with stream temperature monitoring activities.
2. *Oregon Department of Fish & Wildlife*: Indian Creek Fish Hatchery grounds-keeping maintenance, repairing and cleaning fish rearing equipment at the facility.
3. *U.S. Forest Service*: Noxious weed eradication throughout the Lower Rogue drainage; natural meadow restoration; removal of brush choking Forest Service access roads needed for fire suppression activities, and maintenance of trails, trail heads, and campgrounds.
4. *Other Educational Activities*: Visiting old growth forest sites to study the ecological characteristics of that natural environment with emphasis on preservation; and a two-day rendezvous with the other OYCC crews from around the state to share their summer work experiences, to do a joint work project together, and to receive recognition from state officials at the Capitol building in Salem.

SUMMARY

This crew has been excellent to work with. They have demonstrated a desire to learn, willingness to work hard, and have taken team pride in the quality of their work. They have received very positive reviews from every project coordinator without exception. It is this crew supervisor's belief that each crew member has gained essential work skills which will serve them well in their next employment opportunities. In addition, they have acquired a greater understanding and appreciation of our local natural resources and environment as well as much needed income, thus satisfying the goals set out for the OYCC program.

The crew wishes to express its sincere gratitude to all those agency personnel whose cooperative efforts have made this work experience possible.

Watershed Education – Spring/Summer Programs

By: Mike Maguire

Natural Resource Day

This spring, Oregon State University Extension Service organized its annual Natural Resources Day at the Indian Creek Fish Hatchery in Gold Beach. This event involved over 60 students, teachers and parents from Riley Creek's fifth grade class. Instructing the technical yet hands-on stations were representatives from several agencies and small businesses including Oregon Department of Fish & Wildlife, Forest Service, Oregon State Parks, South Coast & Lower Rogue Watershed Councils, Oregon Sea Grant, Fishermen's Direct and Jerry Rogue Jets.

Students engaged in a variety of outdoor educational activities such as an orienteering lesson– learning how to use a compass; wetland and riparian field evaluations – discovering their importance to local fisheries and wildlife; ocean shores and marine mammals – strengthening students' local knowledge of tide pools as well as cetaceans (whales, dolphins & porpoises) and pinnipeds (seals & sea lions). Other activities included lessons in local geology and macroinvertebrates, a tour of the hatchery and a special visit to Fishermen Direct, a small business owned and operated by local fishermen.

Perhaps it was my naïve nature that led me to think that all the kids would be exhausted and ready for a nap by the end of all the field stations. Not for these fifth graders! By 1:30 in the afternoon (about naptime) everyone boarded one of Jerry's jet boats to tour the Lower Rogue River. Never mind the theoretical attempts to teach the students about the intricacies of orienteering with the aide of a compass. The true test seemed to be the application of their new found science as was evident through the screeching yells of 54 kids yelling to the driver "one more 360°!".

The event was a genuine success and students undoubtedly gained an increased knowledge and appreciation for the amazingly diverse and abundant natural resources in the local area.

Creeks and Kids

In June & July the Oregon Department of Fish & Wildlife (ODFW). Governor's Watershed Enhancement Board and Oregon Project WET collaborated to host the annual "Creeks and Kids" workshops at Suttle Lake Camp (near Sisters) and Drift Creek Camp (near Lincoln City). These workshops were designed to give educators the skills and confidence needed to use their local streams as learning sites. The workshop lasted four days and was well worth the cost of only $40.00. Many of the participants were teachers ranging from elementary to high school levels. Some participants were outreach coordinators from ODFW, education coordinators representing watershed councils and crew leaders from various youth corps.

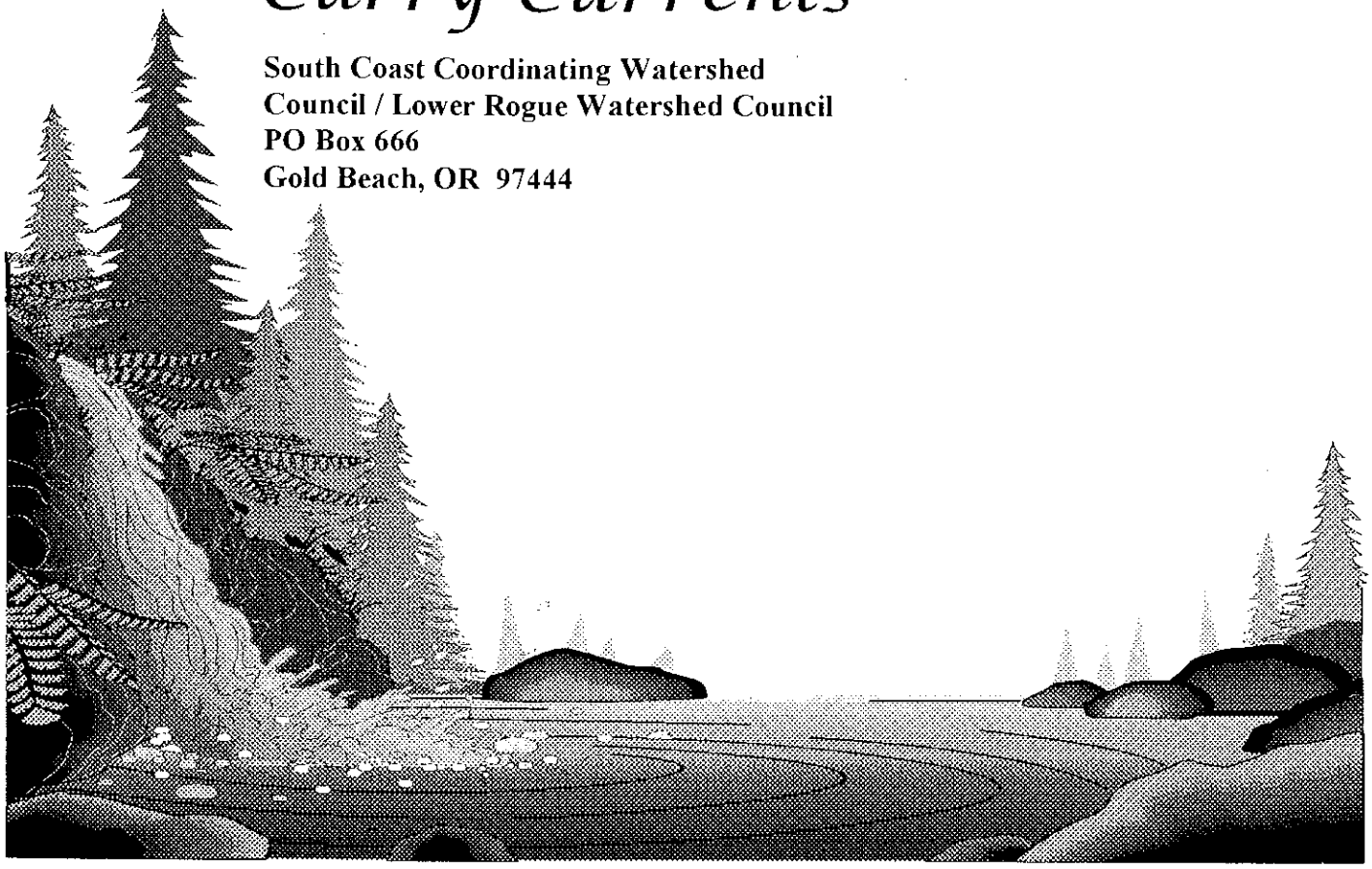
One of the lessons at the Suttle Lake workshop provided participants with a real-life, hands-on problem-solving experience related to watershed issues. Participants were formed into technical groups representing four areas: water quality, macroinvertebrates, fisheries and mapping. Each technical group worked independently to review available background information. Each group was also provided a few hours to collect data in the field that corresponded to their "field of expertise". The objective of the lesson was to make an informed decision in support or in opposition to a proposed land-swap that might adversely impact the lake's natural resources due to a change in land ownership that would result from the swap. (It is known that Suttle Lake has abnormally high amounts of phosphorous; its cause is not known.) Participants drew upon their new curricula to assist in determining what type of data would be appropriate to collect. They collected the data and collaborated with the other technical groups to exchange information in an effort to assess any potential concerns associated with the proposed land-swap. In the end most groups felt it necessary to collect more information before making premature conclusions regarding such an issue. Most groups also discovered how to improve their own methodology and/or techniques that were used in collecting field data. An official vote did not take place although several participants suggested what specific information should be obtained in order to make a more informed decision.

I strongly recommend Creeks and Kids to all watershed educators. The following are what I considered to be the highlights of the workshop:

- *Watershed Curricula* – each participant received four excellent curricula including: Stream Scene (1999 Edition), Watershed Uplands Scene, Project WET and Project Wild
- *Supplementary Resources* – gained insight into other curricula, books, art, music, etc.
- *Skills & Confidence* – improved application of watershed education in & out of the classroom
- *Good Time* – met new people and shared ideas
- *Workshop Tuition* – only $40.00!

Curry Currents

South Coast Coordinating Watershed Council / Lower Rogue Watershed Council
PO Box 666
Gold Beach, OR 97444



Who We Are

Curry County Soil and Water Conservation District: (541) 247-2755
Michael Knapp - Chairman, Earl Lang -Vice Chairman, - Don Smith Secretary/Treasurer,
Keith Smith - Director, Bob Pommarane - Director, Cecil Ashdown - Administrator
Oregon State University Extension Service: (541) 247-6672 or (800) 356-3986
Mike Maguire - Interim Watershed Extension Agent
South Coast Coordinating Watershed Council: (541) 247-2755
Lucie La Bonte'- Chair, Harry Hoogesteger - Coordinator, Cindy Ricks -Monitoring Coordinator
Lower Rogue Watershed Council: (541) 247-2755
John Lighty - Chair, Bruce Follansbee - Coordinator
Cindy Ricks -Monitoring Coordinator
Chetco Watershed Council: (541) 247-2755
Roger Thompson - Chair, Ted Freeman - Vice Chair, Angie Dillingham - Secretary
Port Orford Watershed Council: (541) 247-2755
John Leuthe - Chair
Elk/Sixes Watershed Council: (541) 247-2755
Joe Marsh - Chair
Floras Creek: (541) 247-2755
Joe Brown - Chair
Hunter Creek/Pistol River Council, Winchuck Council, Euchre Creek Watershed Council