



Coos River Rancher Enhances Grazing and Riparian Areas



Black cottonwood and a diversity of native riparian species

It has been three busy years since James Jaberg and his family bought a stretch of land on the South Fork Coos River. They moved from the Springfield area, where they had owned a farm and been involved with the East Lane Soil and Water

Conservation District. The Jaberg's now raise about 3 dozen Angus cow calf pairs (plus bulls and replacements) on their 90 acres of rolling pasture and woodland. Jaberg, who proudly refers to his river frontage as the 'peninsula', and has been steadily improving conditions since purchasing the land with his wife Sue and daughter Jamie. "We cleaned up the property a lot when we first moved in. Lots of old tires and appliances were uncovered and hauled away." says Jaberg, who is now actively addressing conservation measures on his land including riparian fencing and planting, development of livestock watering facilities, heavy use area protection, and forest stand improvement. Jaberg works cooperatively with the Coos Watershed Association, the Natural Resources Conservation Service (NRCS) and has developed a conservation farm plan through the Coos Soil and Water Conservation District.

The USDA's CREP (Conservation Reserve Enhancement Program) pays an annual rental fee plus

cost-share on supplies, fencing and maintenance for restoring and protecting riparian areas. The Jabergs, like many riparian landowners, had eroding river banks dominated by blackberries. They have now enrolled 5000 lineal feet of riparian area in the CREP program which, with the CWA (Coos Watershed Association), will assist the Jabergs with an intensive riparian restoration and monitoring project. The CWA is enhancing the usual CREP practices with more intensive site preparation, expanded species diversity, and monitoring. The area, which is now fenced 75 feet back from the river, has so far, had blackberries cleared and trees planted on 1800 feet. The CWA is conducting several test plots in the riparian area to gauge the effectiveness of blackberry clearing for tree establishment using a few different methods of mowing and root wad removal. A section of river bank was so steep that planting there would have been extremely impracticable. The bank was set back to a 2:1 slope using an excavator, and blackberry root wads were picked out by hand before tree planting.

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- ◆ TMDLs and the Quest for Shade

Coos & Coquille Area Agricultural Water Quality Management Plan and

- ODA's Water Quality Program
- USDA Conservation Programs
- Ecotrust

**Tuesday, September 17th,
6:00 - 9:00 p.m.**

Coquille Community Building

**Preregister with Coos SWCD 396-6879
www.coosswcd.oacd.org**

Horse Keeping and Clean Water Workshop

Saturday, September 21st, 10:00 - 4:00, Coquille Community Building

Please preregister by calling Coos SWCD 396-6879
Lunch provided (Alder Smokehouse) if you preregister



Workshop Featuring:

- ◆ Glenna Wilder, Clackamas Community College
- ◆ Joseph Snyder DVM, Myrtle Veterinary Clinic
- ◆ Tim Stevenson, Oregon Dept. of Agriculture
Water Quality Planner

What will you gain from the workshop?

Sensible, healthy management of horses and other livestock is good for your animals, your land, and water quality. The workshop will present practical strategies on how to avoid mud problems, how to best manage manure so that it becomes a valued resource, and how to maximize pasture production. Accumulation of mud, manure and standing water - all too common in southern Oregon - encourages myriad parasites, decreases animal resistance to disease and generally lowers quality of life. Combined with the ever-pressing need to improve and protect water quality through mandates such as SB1010 and the TMDL process, farms that effectively manage mud, manure and runoff are going to benefit in many ways whether they are large or small operations.

Demonstration Site Tour **Sunday, September 22, 4:00 p.m.,** Milk-E-Way feedstore, Coquille

Come visit a horse pasture that has been greatly improved over the last year and a half with the installation of a sacrifice area, grazing strategy, and improved water system. The grass is growing better, the weeds are fewer, water quality is protected and everyone is happy.

Here's Glenna...

I began teaching classes on mud, manure & pasture management in 1994, including all day workshops at Portland Community College in cooperation with Oregon State University, Oregon Dept. of Agriculture, Washington County SWCD and USDA NRCS; and since 1996 have taught evening classes for Clackamas Community College's Community Education Program. The CCC classes are called "Minimizing Mud, Managing Manure, and Maximizing Pasture." I teach information and practical applications that have been proven on the ground, that not only work well for horses and their owners, but also protect and enhance water quality and wildlife habitat.

My husband and I own and operate "Bro a Bryn Farm" located in North Plains, OR. I run a horse breeding, sales, and training business. Our primary market is Section D Welsh Cobs, but we also raise Percheron/Thoroughbred crosses, Dutch, and German Warmbloods. We also raise hay.

Our farm is situated on Dairy Creek, which is a tributary of the Tualatin River. I first became interested in mud/manure/pasture concerns when the Tualatin watershed became the focus of water quality clean-up efforts in the early 1990s. My husband and I implemented numerous "best management practices" (BMPs) on our farm as part of that effort, and our farm became a "show and tell" destination for many groups and individuals seeking information that would help them make changes to their own farms.

Among the BMPs we implemented on our farm were: "sacrifice areas" for horse confinement during non-pasture seasons (w/NRCS); a manure composting building (w/NRCS); grassed waterway/filter strip, diversion, and spreader ditch (OSU grant project); roadside erosion control planting which benefits wildlife (OSU grant project); riparian planting of Sitka Spruce trees and native shrubs along 1000 feet of Dairy Creek for erosion control and enhanced fish habitat; and numerous other wildlife habitat & water quality enhancements.

TMDLs and the Quest for Shade

Total Maximum Daily Loads

The Oregon DEQ (Department of Environmental Quality) is in the process of determining TMDLs (Total Maximum Daily Loads) for each stream listed on the Clean Water Act's 303(d) list of water quality impaired waterbodies. DEQ calculates TMDLs, which are pollution load limits, for each pollutant, such as bacteria, sediment and even temperature increases, entering a body of water. DEQ's new approach looks at the water quality of the entire river and watershed rather than whether or not a specific discharge meets its permit requirements. The comprehensive watershed approach includes developing TMDLs for both point and non-point sources by the year 2007. Remedies to non-point sources of pollution will be addressed in Water Quality Management Plans for each sub-watershed area.

TMDLs describe the amount of each pollutant a waterway can receive and still not violate water quality standards. TMDLs take into account the pollution from all sources, including discharges from industry and sewage treatment facilities; runoff from farms, forests and urban areas; and natural sources such as decaying organic matter or nutrients in soil.

Coquille Watershed

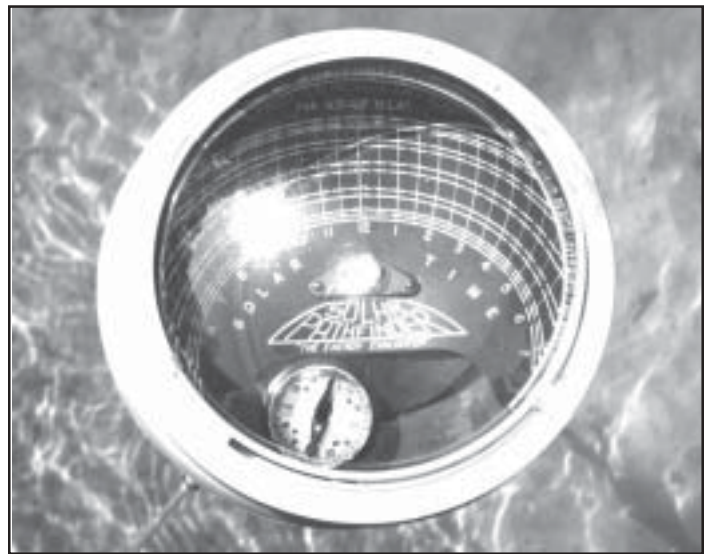
DEQ is currently in the process of assessing conditions and developing TMDLs in the Coquille watershed. The TMDL for the watershed, which will be ready by 2005, will be packaged in five sections pertaining to the mainstem, North, South, East and Middle forks. TMDLs and a Water Quality Management Plan have been completed for the Upper South Fork, and the East Fork assessment has been completed. TMDLs for the Lower South Fork and North Fork will be completed and ready for public comment later this fall and winter. The Middle Fork and mainstem Coquille are still in the monitoring and assessment stage.

Riparian specialist, Dr. Bruce Follansbee is working in conjunction with DEQ on a survey of riparian and channel conditions on the North Fork. "Temperature is a priority concern in this area, and the assessments are designed to show where the heating is occurring", explains Follansbee. The North Fork has been divided into 715 stream reaches from which data is collected. Data, such as stream width, sun angle, tree species and spacing is then entered into a computer modeling program called Shadow. Shadow produces a mathematical model telling us how much of the stream's surface area is unshaded. Using this modeling program,

the North Fork is found overall to be 36% unshaded based on August 1st average sun intensity.

The Solar Pathfinder

"The modeling program is responsive to what we're finding on the ground," says Pam Blake of DEQ. A manual device called the Solar Pathfinder, shown below, is being put to work in the riparian areas of the North Fork to check for systematic bias of the computer modeling system. The Solar Pathfinder's main feature is a transparent dome that reflects a panoramic view of the surrounding area. This allows the shading objects (trees, hills etc.) to be identified and their silhouette mapped. Notice the jagged shadow on the left side of the dome below. The panoramic shadow falls across a chart below the dome which shows solar time in half hour increments adjusted for the area's coordinates. Carefully reading the shadow's line as it circles the chart, one can tell what percentage of shade and sun is available



to the site on any month of the year. A record of all obstacles providing shade is obtained and can be compared with future readings to evaluate shading changes over time.

Potential Shade

Development of standards for riparian shade must consider the important subject of site potential vegetation. Site potential vegetation is the plant community that would most likely be growing in a particular area if left undisturbed by humans for at least 100 years. It is determined by such values as soil type, water table, solar orientation, and climate. Dr. Follansbee, explains that reaching absolute vegetative site potential in the near future (continued on page 5)

(Continued from page 1) **Jaberg**

Six thousand willow cuttings have been planted closest to the water for bank stabilization. Other trees planted, totalling 1800, are a diverse range of riparian native species including Sitka spruce, Western redcedar, grand fir, Western hemlock, vine maple, bigleaf maple, dogwood, black cottonwood, Oregon ash, ninebark and blue elderberry. CREP alone would not normally install so many trees, however, thanks to funds gathered by the CWA, this project will help restore a diverse range of native riparian vegetation to the watershed. "The diversity of native tree species should increase aquatic insect populations which will also be good for salmon." says John Souder, CWA coordinator. The CWA is also installing a weather data collector at the site, which will provide a better understanding of growing conditions, rainfall patterns, and soil moisture, as the trees become better established.

When asked what motivated him to have the extensive riparian enhancement work done Jaberg said with a smile, "It secures the bank and makes your property worth more." Jaberg also stressed the importance of site-specific, native vegetation and commented that, "Land is hard to manage anyway, we might as well let mother nature manage it for us as much as possible."

(continued from page 3) **Shade**

is an unrealistic goal for many riparian landowners. However, as the use of technology, such as computer modeling allows us to estimate the shade that would be provided by site potential vegetation, landowners may be able to manage successional plant communities to provide equivalent shading. That is, for example, the same amount of shade could be provided by management of younger, faster -growing trees while the site potential trees have time to establish and mature.

**Check out Coos SWCD's
new website
www.coosswcd.oacd.org**

Pastures and wood lands are being improved with the help from USDA's EQIP (Environmental Quality Incentives Program), which pays half of the expenses for implementing conservation practices (under the new Farm Bill EQIP pays at least 75%). Jaberg is quick to recount how the pastures looked when the family first bought the place - choked with thistles, tussocks and willow. The lower pastures along the river, though usually not flooded, are very wet in the winter. Willows remain along a fenced-off drainage in one of the pastures. Jaberg explained that one of his main conservation efforts is to keep animals off of sensitive, wet areas. Through the use of closely-monitored rotational grazing, seeding, and on-going weed control, Jaberg has been able to reestablish enough pasture to graze the cattle for the dry season.

Another 15 acres of grazing land up slope are being developed in order to take pressure off of the lower pasture in the wet season. This will protect the soil from getting too muddy, exposed and disturbed and allow forage to reestablish quickly in the spring. The upper pasture is being cultivated among mixed hardwoods that remain after thinning and clearing dense underbrush. The trees will provide shade and cover for livestock, soil stability, filtration and wildlife habitat.

The Coos SWCD welcomes our new staff Watershed Technical Specialist Larry Gill. Larry will be developing farm plans and can be reached at the office in Coquille.

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- SB1010 Outreach Coordinator ----- Bessie Joyce
- Watershed Technical Specialist ----- Larry Gill

Calendar of Events

•**SB1010 Water Quality Management Plan workshop, September 17, 6:00-9:00 p.m., call 396-6879 to register.**

•**Horse Keeping and Clean Water workshop, September 21, 10:00-4:00 p.m., call 396-6879 to register.**

•**Intensive use area / pasture management site tour, September 22, 4:00 p.m., call 396-6879 to register.**

•Coos SWCD meetings open to the public 7:30 pm every 4th Thursday, for information call 396-6879

•Coquille Watershed Council meetings open to the public 7:00 pm every 3rd Monday at the OSU Extension Office, upstairs conference room, for information call 396-2229

•Tenmile Watershed Council meetings open to the public the last Thursday of every other month, for information call 759-2414

•Coos Watershed Council meetings open to the public, for information call 888-5922

•Curry Agricultural Water Quality Management Plan meetings open to the public 7:00 pm every 2nd Wednesday, for information call Linda Smith at 348-2652

The true measure of agriculture is not the sophistication of its equipment, the size of its income, or even the statistics of its productivity, but the good health of the land.

- Wendell Berry

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