

H₂O NEWS

LINKING OREGON'S WATER RESEARCH AND EDUCATION

UNDERSTANDING OREGON'S CLEAN STREAM INITIATIVE

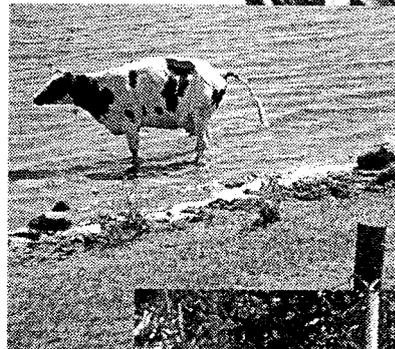
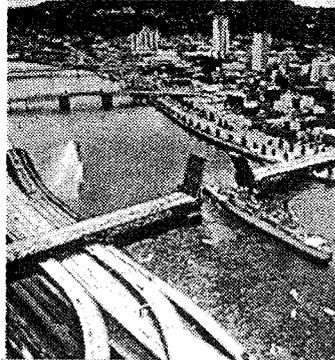
By

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The "Clean Stream" Initiative has been submitted as an Oregon ballot measure by over 30 local, state, regional and national organizations. Livestock exclusion and riparian fencing are called for with the intent to reduce the degree to which livestock contribute to poor water quality. This measure, if enacted into law, would apply to state, federal and private lands. Land use and water resource implications and consequences abound for government and private land owners. This article provides a description of the Initiative, its controversial nature, the unique circumstances in Oregon that provide framework for the Initiative, possible enforcement challenges, and potential implications for natural resource management.

Introduction

On July 2, 1996, the Oregon "Clean Stream Initiative" turned in petitions containing the signatures of more than 91,000 registered Oregon voters, allowing inclusion of the Initiative as a ballot measure to be voted on in the November election. In the realm of natural resource management, the nature of this Initiative is both controversial and exciting. It is controversial because of its potential impacts on public and private land management, implementation costs, and scientific basis for decision making. It is exciting because of its altruistic goals and potential impacts on water quality research, management, and legislation. The implications of this Initiative are far reaching: it may be a signal of



shifting values across the West, emphasizing the power behind demographic changes in rural and urban populations.

Clean water is a universally appealing concept, one that is engraved in our nation's legislative history with the passage of the 1972 Federal Clean Water Act (CWA). It is an intrinsic goal of many land and water resource managers. Achieving clean water goals is an important, and often intensely emotional, issue in both public and private arenas. However, management for clean water is often in conflict with the management of other important resources. Herein lies the conflict: How should our national, state, and private resources be managed to promote the ecological goal of clean water while accommodating economic, political, and social needs, in addition to protecting the constitutional rights of private citizens? Or can this be done?

The Oregon Clean Stream Initiative, an independent Political Action Committee supported by the Oregon Natural Desert

Association (Bend, OR) and over 30 local, state, regional, and national organizations, is targeting the waters of the State of Oregon for protection from water pollution caused by livestock (Pamphlet, Oregon Clean Stream Initiative, 1996; Clean Stream Times 1996; Section 1. Oregon Clean Stream Initiative). The campaign objectives are to provide for water quality improvement in Oregon's polluted streams, improve stream and riparian habitat for salmon, steelhead, and trout recovery, and hold polluters accountable for the pollution they generate (Pamphlet, Oregon Clean Stream Initiative, 1996; Clean Stream Times, 1996).

Controversy is at the very heart of this Initiative, right down to its name. While supporters are calling it the Oregon Clean Stream Initiative, opponents argue that the name makes an emotional appeal to the public, and would have its name changed to the Livestock Exclusion Initiative. Its official ballot title is: "Prohibits Livestock in Certain Polluted Waters or on Adjacent Lands" (State Initiative Petition, 1996).

What is "Water Quality Limited?"

The Initiative applies to all riparian areas adjacent to over 900 waterways designated as water quality limited by the Oregon Department of Environmental Quality (ODEQ) (State Initiative Petition 1996). The CWA, in Section 303(d), requires each state to identify those waters which do not meet state water quality standards (ODEQ, 1996). The cause of such listings is typically from nonpoint sources of pollution, including high water temperatures and hydromodification. Cool water temperatures are vital to the survival and reproduction of anadromous salmonids and resident cold water fish species, many of which are listed as threatened or endangered under the Endangered Species Act. Over half of the water quality limitations in Oregon are the result of nonpoint source temperature pollution.

Why Target Riparian Zones?

The Clean Stream Initiative addresses temperature dependence by requiring the protection of riparian zones, which have the potential to shade and cool the

streams. Riparian zones are the often narrow strips of land that border creeks, rivers, or other bodies of water. Because of their proximity to water, plant species and topography of riparian zones differ considerably from uplands. These areas provide forage for domestic animals and important habitat for approximately four-fifths of the wildlife species in Oregon (Elmore and Beschta, 1987). At the time of early settlement in Oregon, streams were apparently lined with woody vegetation, and beaver ponds expanded the floodplains and trapped sediments and nutrient rich organic matter. Widespread beaver trapping and subsequent grazing practices degraded many riparian ecosystems in eastern Oregon early on (Elmore and Beschta, 1987). In much of western Oregon, riparian zones have been constricted and degraded due to agricultural expansion, forestry practices, and urban uses. To meet its objectives, the Initiative "calls for the protection of the 'designated riparian area,' which, defined by Oregon state law does

not exceed 100 feet from the stream" (Clean Stream Times, 1996). Although the scientific debate about effective riparian widths continues, there are no minimum setback requirements proposed by the Initiative.

The Oregon Clean Stream Initiative proposes riparian exclosures to prevent grazing use in the riparian zone. Mandatory riparian fencing may be viewed as an example of a "one-size-fits-all" approach to resource management. Although exclosures can take grazing pressure off streams for fish and wildlife habitat improvement, no two riparian areas are the same, and no two will respond the same way to a single management

practice. In fact, there may be a range of options for riparian management (Swanson, 1986). For example, riparian pastures are larger fenced areas that can be managed for rotational grazing. Fencing of riparian pastures is often hillside-to-hillside, increase grazing management options, while requiring nearly the same amount of materials (pastures may be much larger than riparian exclosures, but fencelines are usually straighter) and less maintenance from periodic flood damage (Swanson, 1986).



Under Section 2 of the Initiative, the State Department of Agriculture may allow an exemption to riparian livestock exclusion if it finds that the livestock do not contribute to a violation of water quality standards. This provision may be interpreted to provide the flexibility for adaptive management and successful riparian grazing management plans.

Why Oregon?

Oregon has a unique land use and resource management history that facilitates this kind of initiative. Statewide land use goals may provide a framework for possible state regulation and management of water resource quality. Environmental values and land ethics are reflected by the state's resource protection efforts, as well as by its resource conflicts. Additionally, concern for water quality and the survival of the Pacific Northwest salmonids is widespread. The Oregon Forest Practices Rules, requiring the establishment and protection of designated riparian areas from logging operations, may be one legislation passed in Oregon most similar to the Initiative. Federally, nonpoint source pollution is receiving increased attention through management programs and legislation.

The Clean Stream Initiative is presented as a ballot initiative rather than a legislative proposal because it is a politically dangerous policy. The Initiative is controversial, potentially divisive, and may not carry widespread public support. The Oregon legislature is an elected body of representatives with discretionary decision making authority and ability to create policies, and a proposal of this nature would not likely pass into law through the legislative channel. Oregon has a long history of public involvement in state decision making through ballot initiative. The ability to put a vote to the people provides a strong public voice. Unfortunately, the complexity of natural resource issues make them difficult candidates for voter controlled legislation, i.e. a situation is created where scientific and management problems are being decided by people without the background and knowledge. Proponents and opponents of such legislation create their own advocacy campaigns



which rarely take an objective look at the issues, thus compounding public confusion of what's really at stake.

Why is this Controversial?

Passage of the Clean Stream Initiative would present several monetary, technical, administrative, and enforcement challenges. A primary argument against riparian livestock exclusion is that riparian fencing is expensive (Swanson, 1986). High costs of fencing are due in part to the nature of streams and rivers meandering across the landscape and that they must be fenced on both sides; estimates range from \$1000 to \$2000+ per mile to fence riparian areas (Clean Stream Times, 1996). Although nonspecific, the Clean Stream Initiative describes possible methods for reducing costs to private land owners through grants and tax incentives, and a ten year phase-in of the law (Clean Stream Times, 1996). In addition to the initial expense of fencing, installation and maintenance create technical challenges that can be difficult and expensive. Fences are difficult to install and maintain in rugged terrain. They also make excellent debris collectors and can cause damage by acting as levees and are themselves susceptible to damage from flooding (Swanson, 1986).

Potential administrative and enforcement challenges abound for federal, state, and local agencies, and private land owners. Proposed enforcement relies on civil action suits brought against violators by any person. The implications of such enforcement may mean costly legal battles. Additionally, there may be Constitutional challenges brought against the Initiative. Buffer widths 100' wide on both sides of a stream would add up to restricting the use of approximately 24 acres of riparian landscape per mile. Although excluding livestock from riparian zones does not deny the landowners all use of the land, such restrictions on private property may be viewed as a regulatory property "takings" issue.

Regulatory measures are often viewed as a decisive approach to resource management. As efforts to protect water quality from the impacts of grazing shift from voluntary to mandatory, political and social

backlash may result. Upland resources may be subjected to over use by livestock, and land owners who have been making positive contributions toward riparian management and water quality may feel burned by such regulatory restrictions as proposed by the Initiative.

Because livestock grazing is the target of the Initiative, it has been referred to as an urban versus rural, or West versus East, issue. Proponents argue that serious measures must be taken to address water quality limited streams impacted by livestock grazing - and that this is to the benefit of all the State's citizens.

Opponents question the intent of the Initiative and why livestock is the only industry being targeted. Indeed,

urban, rural residential, agriculture, forestry, and industry are all land uses that contribute to nonpoint source problems in Oregon. Forestry impacts are being addressed with the Oregon Forest Practices Rules.

Many urban, rural residential, agriculture, and industry nonpoint source pollution impacts have yet to be addressed by a regulatory approach. That

the livestock industry is the target of the Initiative results from the abundance of temperature related water quality limited streams, and the assumption that high temperatures are primarily the result of grazing in riparian zones.

It's Not All Bad, Is It?

From a water quality management perspective, the Clean Stream Initiative is positive in that it addresses water quality concerns, leaves some "wobble room," empowers people, and most importantly, it takes action. Some argue that getting the Initiative on the ballot, even without its passage, will send a strong message to public and private land managers. With so many streams listed as water quality limited, it is obvious that serious water quality problems exist in Oregon. The Initiative attempts to address citizens' water quality concerns. The Initiative empowers people on both sides of the debate to make changes in the state's water resource management. Significantly, the Initiative proposes taking action. Where education and voluntary efforts have not taken hold, proponents argue that a regulatory approach is necessary (Marlett, 1996).

Although the Initiative advocates mandatory measures for livestock exclusion from streams, the Initiative leaves a moderate amount of "wobble room" that often seems to be overlooked by its opponents. In addition to possible Department of Agriculture exceptions for land owners who demonstrate their management practices are not adversely impacting water quality, the Initiative only applies to those waters of the state that have been designated as water quality limited. To be removed from this list, landowners must develop a management plan that is approved by ODEQ. The content of the management plans can be flexible as

long as the plans sufficiently address the water quality limitations and are approved as such by ODEQ. Although it requires land owners to take action, the Initiative does leave room for land owner decision making and ingenuity.

From a water quality management perspective, any program for riparian protection should include monitoring to see if the desired results are obtained. The goal of the Clean Stream Initiative is not

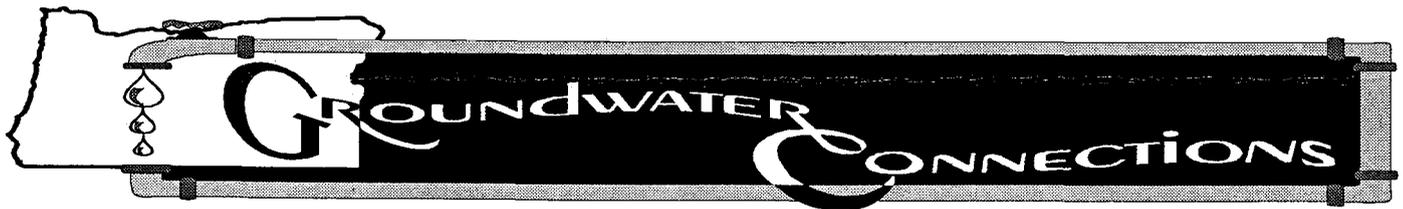
to fence streams, but to improve water quality and stream habitat. Water quality monitoring is the only objective way to determine if progress is made toward that goal. Benchmark goals should be set, such as incremental decreases in average water temperature, and long-term monitoring programs should be established to evaluate riparian fencing as a means to accomplish such goals. Water quality monitoring can be used to support or refute a scientific basis for regulatory riparian protection efforts and pave the way for adaptive management strategies.

Oftentimes the public may feel impotent to address environmental problems. Passage of the Initiative would demonstrate that citizens can be a direct mechanism for change, and individuals can make a difference with regard to impacting resource quality in what one hopes to be a positive direction. With passage, Oregon would be the focus of a national experiment, and the impacted lands should be monitored for changes in habitat quality. Passage of this Initiative would set a precedence for nonpoint source water quality management in the United States, and may spur similar measures in the West.



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After a successful two-year run, the Oregon Groundwater Community Involvement Program quietly closed on August 31 at the conclusion of its funding cycle. The program has been a joint project of the Oregon Water Resources Research Institute and the Oregon Department of Environmental Quality (DEQ) supported by a US Environmental Protection Agency 319 Grant. The Groundwater Program was coordinated by Loretta Brenner who developed the program into a dynamic community outreach program that brought groundwater education and awareness to hundreds of Oregon communities. We want to extend our appreciation to those of you who volunteered in the numerous groundwater awareness and nitrate testing events sponsored by the Groundwater Program during the past two years.

The ultimate responsibility for protecting our precious and irreplaceable groundwater remains in the hands of the citizenry. The following agencies and groundwater programs are available to answer questions and support your community's groundwater interests.

Resources Numbers:

- ◆ Home-A-Syst Groundwater Protection Program, Gail Glick at Oregon State University, 541/737-6294
- ◆ Wellhead Protection, Sheree Stewart at DEQ, 503/229-5413
- ◆ Area wide nitrate contamination, Amy Patton at DEQ, 503/229-5878
- ◆ Health Concerns Associated Groundwater, Dennis Nelson at Oregon Health Division, 503/731-4010 or 541/687-4424
- ◆ Pesticides Concerns in Groundwater, David Priebe, Oregon Dept. of Agriculture, 503/986-4656
- ◆ USEPA 319 Grant Projects, Ivan Comacho at DEQ, 503/229-5088
- ◆ Groundwater Education, Julie Magers at Portland State University, 503/725-8288

OSU WATER QUALITY CONFERENCE, NOVEMBER 13, 1996

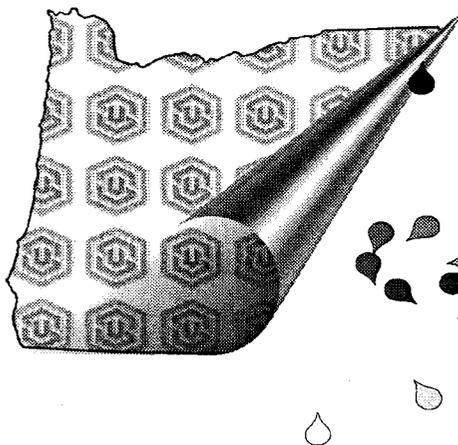
By Carol Savonen, (541) 737-3380

SOURCE: Ron Miner, (541) 737-6295

Scientists, students, interested citizens, land owners, regulators, land use planners, and managers are invited to participate in Oregon State University's 1996 James. A. Vomocil Water Quality Conference. The conference, an annual event, will be held on November 13, 1996, 9 a.m. to 5 p.m. at LaSells-Stewart Center on the OSU campus.

The program will focus on the impact of the flood of 1996 on water quality, stream temperature measurements and problems, public health issues of water quality, and nutrient management as part of a water quality protection program.

The full-day conference will cost \$30 per person, including lunch. For more information contact: Ron Miner, Department of Bioresource Engineering, OSU, Gilmore Hall, Rm. 116, Corvallis, OR 97331-3906, (541) 737-6295.



Student Poster Competition

Topics: Stream Temperatures; Nutrient Management; Public Health; and Flood of '96

\$100 cash prize OSU student poster competition. FREE REGISTRATION for OSU students entering posters in student poster competition (open to any water quality theme).

Registration Cost \$30. Poster and Vendor display room available to faculty, staff, students and general public. Display boards are available.

To register for the student poster competition, contact: Jill Saligoe-Simmel, 3069 Ag Life Sciences Building, (541) 737-5843; saligoej@css.orst.edu.

Or to arrange for poster or vendor display space, contact: Penny Hatcher-Bangs, Gilmore 116, (541) 737-4021; hatcherp@ccmail.orst.edu.

1995 OSU WATER QUALITY CONFERENCE PROCEEDINGS AVAILABLE

By Carol Savonen, (541) 737-3380

SOURCE: Ron Miner, (541) 737-6295

Proceedings of Oregon State University's 1995 James A. Vomocil Water Quality Conference are available for purchase. The theme of last year's conference and title of the newly available proceedings is "Wetlands, Best Management Practices and Riparian Zones."

The 158-page proceedings includes reports on waste water treatment with constructed wetlands, best management practices for peppermint production, water and fertilizer management in potato production, best management practices, nitrate leaching and sugar beet production, off stream livestock watering, furrow mulching, a cost-benefit analysis of riparian habitat restoration, and stream water quality and land use in the Tualatin Basin.

The OSU Extension Service and the Oregon Water Resources Research Institute cooperate to sponsor this annual conference each November on critical water-related issues in the state. The goal has been to have the presenting scientists speak in a language understandable to the entire community concerned about water, said Ron Miner, professor of Bioresource Engineering at OSU and organizer of the conference.

For copies of the proceedings, send a check or money order for \$10 made out to: OSU Water Quality Conference. Send your request to: Ron Miner, Extension Water Quality Specialist, Department of Bioresource Engineering, OSU, Gilmore Hall, Rm. 116, Corvallis, OR 97331-3906.

UPCOMING CONFERENCES AND SEMINARS

NOVEMBER

7-8 5th Annual Oregon Water Law Conference

*World Trade Center,
Portland, OR*

Comprehensive Examinations of the Many Current Major Impacts to Oregon Water Law and Management. For further information call LSI (206) 621-1938 or 800-854-8009.

14-15 Governor's Watershed Enhancement Board 4th Biennial Conference

*Seaside Convention Center,
Seaside, OR*

Keynote by Governor Kitzhaber. Watershed Assessment Training; Watershed Councils - Salmon Issues; Experiences, Legislation, How-To, Future Role. Plus: Education; Technical Sessions & Field Trips. For information contact the Governor's Watershed Enhancement Board, (503) 378-3589 x 825.

15-17 Western Regional Urban Streams Conference

*Arcata High School
Arcata, CA*

Will focus on urban creeks and streams in the western United States. Planners, government agencies, engineers, developers, educators, restorationists, and any group or individual interested in urban streams will find this conference useful. Continuing education/academic credit available. For information call Susan Scramm, (707) 441-9856.

20-21 Association of Oregon Counties Conference & Exhibition

*Eugene Hilton Conference Center
Eugene, OR*

500 Delegates from County Government. Exhibit Registration Deadline October 18th. For information contact Gordon Fultz, AOC, (503) 585-8351.

24-28 1996 Groundwater Guardian Designation Conference

*McDonald's Corporate Campus
Oak Brook, Illinois*

Gathers Groundwater Guardian community representatives, local and federal officials, and national organization experts. For information call the Groundwater Foundation, 800-858-4844.

COMING IN 1997

Sept. 25-27 International Symposium on Emerging Trends in Hydrology

*University of Roorkee
Roorkee, India*

Objectives include commemorating the Silver Jubilee Anniversary of the Department of Hydrology at the University of Roorkee in India, and to share the recent developments and emerging trends in the fields of Surface Water Hydrology, Groundwater Hydrology, and Watershed Management.

For information contact:
Dr. D.C. Singhal, Department of
Hydrology, University of Roorkee,
Roorkee-247667, India.

E-mail: hydro@rurkiu.ernet.in



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TMDL ISSUES MEETING SUMMARY NOW AVAILABLE

On July 25-26, 1996, the Oregon Water Resources Research Institute and the Association of Clean Water Agencies sponsored a workshop on **TMDL Issues: *The Good, The Bad, and the Ugly***. The workshop focused on TMDL issues and developing possible solutions for the Oregon 303(d) list. The open workshop was designed to bring together senior federal and state environmental officials with representatives from the cattle, timber, agriculture, and food processing industries, environmental advocates, municipal water managers, water quality scientists, and the public.



To get a copy of the **TMDL Workshop Meeting Summary**, send \$5.00 check or money order to OWRRI, Oregon State University, 210 Strand Agriculture Hall, Corvallis, OR 97331-2208.

For further information and documents regarding Section (303)d of the federal Clean Water Act contact the State of Oregon, Department of Environmental Quality, 811 SW Sixth Avenue, Portland, OR 97204, (503) 229-5279.

H₂O NEWS

H₂O News is published by the Oregon Water Resources Research Institute with funds provided in part by the U.S. Geological Survey, Department of the Interior, as authorized by the Water Resources Research Act of 1984.

For additional copies or for further information regarding the Oregon Water Resources Research Institute program, please call or write:

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