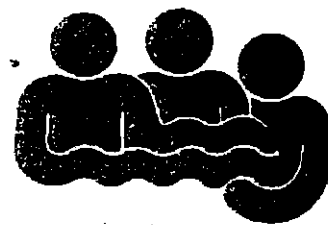


River Voices



A Quarterly Publication of River Network

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The Clean Water Act: Accomplishments, Failures and Opportunities

by Peter Lavigne

Often lost in the many efforts to protect outstanding rivers through severely limited federal wild and scenic designation is the one federal law that can, and perhaps should be the premiere federal river protection statute — the Federal Water Pollution Control Act, better known as the Clean Water Act. The sewage treatment, discharge reduction and citizen enforcement provisions of the Clean Water Act represent the most visible successes of the major environmental legislation of the 1970's.

Most U.S. rivers are no longer visibly polluted with the sludge, changing colors from industrial discharges, and algal blooms that led the Merrimack and Nashua Rivers in New England to be characterized by the late 1960's as "too thin to plow and too thick to drink." Gross water quality has improved, fish and other aquatic species have been restored in many formerly "dead" sections of rivers and the Cuyahoga no longer catches fire. Indeed, after two decades of sewage treatment and over half a billion dollars in federal and state expenditures, the Merrimack River now supplies drinking water to over 300,000 people in its watershed and the river is seeing a resurgence of its once tremendous anadromous fishery with the return of American shad and a tenuous return of Atlantic salmon.

The Clean Water Act is also, however, indicative of a massive failure of

river ecosystem protection. Its emphasis on sewage treatment and discharge permitting ignored the elemental truth that everything in the environment is connected to everything else. The Clean Water Act, like most of our environmental laws, is organized to solve problems on a piecemeal basis, disregarding what the Natural Resources Defense Council calls "the troubled interdependence between land and water."

LAND AND WATER

Rivers are the ecological infrastructure of the continent, the roads and pipes, if you will, of our natural systems, the veins and arteries of the watershed body. It is truly the river's life transporting function that determines the health and ultimate survival of the patient. Rivers provide natural valley flood storage, wetland and wildlife habitat, and a tremendous diversity of aquatic and land species. Rivers are the scene of tremendous natural vistas, impressive displays of nature's power, and conversely, contemplative opportunities central to our lives as thinking humans — attributes needing far more protection than they currently receive.

In many ways rivers have also been, and are, the primary natural economic infrastructure, serving as natural sources for waste disposal, power supply, transportation corridors, drinking water, and

(CWA continued on page 2)

Inside River Voices

The theme for this issue of *River Voices* is the Clean Water Act. It's a timely topic as October 1992 marks the twentieth anniversary of the Act, and the Act is now up for reauthorization. We've pulled together a collection of articles that provide background information, examples of how to use the Act as a river conservation tool, and how to get involved in the Act's reauthorization.

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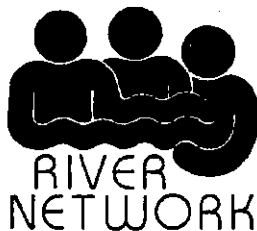
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We hope you find this publication useful, and we welcome your comments, ideas, and suggestions.



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River Network is a national non-profit organization dedicated to helping people protect rivers. We support river conservationists in America at the grassroots, state and regional levels; help them build effective organizations; and link them together in a national movement to protect and restore America's rivers and watersheds.

River Network has three programs:

the **River Clearinghouse** provides local river activists with information and referrals on technical river resource and non-profit organizational issues;

the **River Leadership Program** develops new leadership and strengthens existing programs in the river and watershed protection movement at the state, regional and grassroots levels;

the **Riverlands Conservancy** brings critical riverlands into public ownership, thereby empowering the public to oversee management and protection.

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recreational use. Unfortunately, the history of human development in North America, and throughout the world, since 1600, has shown an ever-increasing destructive capacity to natural riverine systems. The veins and arteries are denuded of their supportive organs while simultaneously overloaded with sediment and other waste products.

ECOLOGICAL SHOCK

Everything humans do to the air, to the soil, to groundwater and to surface waters will eventually show up in effects on river systems. Current trends reveal a crisis in biodiversity and an inability of current environmental protection laws and efforts to protect endangered species on a piecemeal or systematic basis. These trends are particularly true for rivers and their watersheds. Recent studies by the The Nature Conservancy, The American Fisheries Society, and the National Research Council of the National Academy of Sciences show that flowing freshwater systems (read rivers!) are far more damaged than terrestrial systems. The Nature Conservancy Study concluded that one-third of all native freshwater fish species in the U.S. are threatened or endangered and that 20% of all aquatic species are threatened. This is a much higher ratio than those affecting terrestrial species and it causes conservation biologists to speculate that rivers are the first to register the impact of long-standing development activities upon our natural systems. Indeed, while ten native U.S. fish species have gone extinct in the past ten years, no terrestrial species are known to have become extinct in that same period.

The American Fisheries Society study found an equally disturbing set of facts for anadromous fish, concluding that 214 salmon and steelhead fish stocks in the Northwest are now threatened; 101 of these are near extinction. All three studies cite the loss of riverine habitat and biological stream function due to dams, water diversions, channelization, deforestation and streamside activities as the

major cause of species decline. The Nature Conservancy study concludes that riverine development and habitat loss plays a key role in 93 percent of the instances of aquatic species decline. Because many ecologists believe that rivers are the true indicators of general ecological health, these precipitous declines take on an even greater significance. They provide initial evidence and warning that the entirety of many of our natural systems may be overloaded and in some form of ecological shock.

CLEAN WATER ACT REAUTHORIZATION — NEW INITIATIVES

Congressional reauthorization of the Clean Water Act scheduled for 1992 (but which will spill over to the next Congress in January - see the article on Clean Water Act legislative history on page 5) offers a new and substantial opportunity for river and watershed protection groups to begin to change the way U.S. environmental protection efforts address basic ecosystems — rivers and their watersheds. Major opportunities include the strengthening and broadening of protection for riparian habitat with better wetlands protection, fully funded and effective programs for control and elimination of poison runoff, demonstration grant and research programs for new decentralized and potentially more beneficial ways of treating sewage, new and improved citizen right to know and enforcement provisions, and new life for the original (and now reachable goal, see article on page 13) of zero pollution discharge to the waters of the United States.

In some cases the E.P.A. and other federal agencies are already moving in the right direction. E.P.A.'s creation of the Office of Wetlands, Oceans and Watersheds (colloquially known as "Oh, WOW!") is a step in the right direction and internal initiatives based on the models of the Coastal Zone Management Act and the National Estuaries Program redirect agency water protection efforts from a simple focus on discharge permits to new watershed approaches. This approach started in E.P.A. Region I in 1987 with the

beginning of the multi-state "Merrimack River Watershed Protection Initiative." River protection and watershed groups can have a great impact on the future direction of the Clean Water Act by supporting language which institutionalizes these new approaches.

The Merrimack Initiative began with a simple letter from the Regional Administrator stating "this action-oriented watershed protection initiative will allow us to step back and examine the Merrimack watershed not as a collection of discharge permits or a list of construction grants, but as a single ecological system. This precedent-setting, holistic approach will expand our understanding of the watershed, and allow us to more intelligently focus our pollution control efforts." The initiative has spawned a broadly based steering committee including E.P.A., the state agencies, environmental groups, water user groups, and industry representatives working on comprehensive actions to clean and restore the health of the watershed environment.

Early successes include the design and implementation of an integrated and compatible geographic information system between the two states, E.P.A. and local planning agencies and the creation of interagency-interstate working groups on water quality, water quantity and resource protection. Implementation of new protection strategies is beginning with the first serious funding, a million dollar appropriation beginning in October, 1992. Local and regional river protection groups including the Merrimack River Watershed Council play key roles in the success of the initiative. Support for changes in the Clean Water Act reauthorization could duplicate these efforts nationwide.

#

A Key to the Clean Water Act

Like many laws, the Clean Water Act is long and densely written. To the uninitiated it can be both daunting and confusing. But within the many pages of technical and legal provisions is one sentence every citizen should know by heart: Section 101 (e) Public participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program established by the administrator or any state under this Act shall be provided for, encouraged, and assisted by the administrator and the states. Watershed protection groups bear a special responsibility to act in the public interest; to do so requires a basic understanding of the laws and political processes which go into them. Though long and involved, the Clean Water Act is organized into only six chapters, key provisions of which are outlined below. One caveat, however, like most complex legislation, the Act itself is only a guideline for implementation under regulations written and administered by various agencies. In the case of the Clean Water Act regulations are administered by the Environmental Protection Agency and the Army Corps of Engineers among other agencies. All regulations written under this and other acts are published in the Federal Register.

Highlights

Chapter I. Research and Related Programs

- Section 101: Congressional Declaration of Goals and Policies
- Section 102: Comprehensive programs for water pollution control
- Section 104: Research and information
- Section 105: Grants for research and development
- Section 118: Great Lakes

Chapter II. Grants for Construction of Treatment Works

- Sections 201-207 Grant Guidelines
- Section 208 Area-wide waste treatment management
- Sections 210-219 EPA construction grants responsibilities

Chapter III. Standards and Enforcement

- Sections 301-302 Effluent limitations
- Section 303 Water Quality Standards and Implementation Plans
- Section 304 Information and Guidelines
 - 304(a) Water Quality Criteria Documents
 - 304(b) EPA point-source guidelines
 - 304(f) EPA nonpoint source guidelines
 - 304(g) Industrial pretreatment guidelines
 - 304(l) Toxic Hotspots
- Section 306 New Source performance standards
- Section 307(a) Toxic priority pollutants
 - 307(b)-(e) pretreatment standards
- Section 309 Enforcement
- Section 314 Clean Lakes
- Section 319 Nonpoint Source (polluted runoff) Management Programs
- Section 320 National Estuary Program

Chapter IV. Permits and Licenses

- Section 401 Water Quality Certification
- Section 402(o) Anti-backsliding
 - 402(p) stormwater permits
- Section 404 Wetlands
- Section 405 Sludge

Chapter V. General Provisions

- Section 505 Citizen Suits

Chapter VI. State Water Pollution Control Revolving Funds

This key is modified from "A Citizen's Guide to Clean Water" published by the Izaak Walton League of America. Refer to References on page 14 for a complete cite.

Clean Water Act Reauthorization: A Top Priority for the River Conservation Agenda

by Peter Lavigne

Active involvement in the Clean Water Act reauthorization offers an important opportunity for river protection groups to expand beyond the traditional foci of corridor protection struggles, local fights over discharge permits, wetlands preservation and all the other tremendously important and tremendously time-consuming site-by-site battles. Active involvement in Congressional reauthorization is critical to the success of all the local and state battles because the Clean Water Act, like most other federal environmental protection statutes provides the foundation as "enabling legislation" for state and local enforcement. Citizen suits for discharge violations are authorized by the Clean Water Act, wetlands protection arises in large part from the "dredge and fill" provisions of section 404, sewage treatment facilities are regulated and sometimes paid for under the Construction Grants program and on and on. The provisions of the Clean Water Act affect large amounts of what river protection groups use as tools, and fight as problems every working day in local towns and statehouses.

WHAT YOU CAN DO

It's tough to break away from the daily grind, take a broader approach and get your group involved with federal legislation but don't let that discourage you. Few efforts are more important and some wins in the Clean Water Act can have a tremendous effect on the ultimate success of local efforts. Opposition groups like the deceptively named "Clean Water Industry Coalition" whose members include the automobile, chemical, mining, oil, pulp and paper, and the U.S. Chamber of Commerce are working to gut current provisions and to block any legislation which significantly expands protection

efforts. Your local efforts to strengthen the Clean Water Act can make a tremendous difference in the ultimate outcome in Congress — particularly if your Representative or Senator serves on the Public Works committees or on any of the Environment, Ways and Means, or Appropriations committees or subcommittees dealing with the Clean Water Act.

First: Join the *Clean Water Network* - a rapidly growing coalition of over 330 national state and local environmental, labor, community, and minority associations. The Clean Water Network steering committee has put together a wonderful 12-page "National Agenda for Clean Water: Prevent, Protect and Enforce" endorsed by all the member groups. Robyn Roberts is the Outreach Coordinator for the coalition and she puts together monthly updates on the many reauthorization bills, and sends information on congressional strategies, the best times to lobby your local members of Congress and very informative issue position papers each month. (Issues covered this year include: CWA enforcement, toxics, sediments, combined sewer overflows, wetlands protection, polluted run-off, beach pollution, water conservation, and toxics and fish. Upcoming issues include: Presidential Candidates water views (October), CWA implementation (November), and funding for clean water needs (December)). Although the coalition is expanding, at this time, participation by local and regional river protection groups is very low (approximately 25 of the 300 plus organizations). The coalition needs the support of grassroots, so get involved. **Dues are voluntary and your group can join by contacting Robyn Roberts, Clean Water Network, 1350 New York Ave. N.W., Suite 300, Washington, D.C. 20005 (202) 624-9357.**

Second: Share information about the importance of the Clean Water Act with your community and political officials. Use the information you gather in your newsletters, membership appeals, and contacts with members. Use your personal contacts with legislators to talk about the importance of addressing river issues in a comprehensive and ecologically sensible way and speak out against the misleading, disrupt and delay and destroy tactics of the resource abuse crowd and the big money industry coalitions.

Finally: Use *River Network* as a resource. River Network is an active participant in the Clean Water Network and we are in touch with the activities of river protection groups across the country. Use the articles from *River Voices* and call for help and advice anytime.

#

The Convoluted History of Clean Water Legislation

The legislative battles in England were a remarkable precursor to the ongoing pattern of delay and obstruction to prevention of pollution and protection of clean rivers in the United States today. Sewer authorities, water companies and industry all fought efforts to improve the public health and protect the environment. In America the battles began in the 1890's in the mill towns of New England and particularly with the industrial revolution of the mills and dams along the Merrimack River in Lowell and Lawrence Massachusetts where conditions were similar to those in England a half century earlier.

Current patterns for legislative battles were set in the first few decades of the twentieth century as well. Water pollution first became a major public issue in the 1930's through the efforts of the Izaak Walton League and South Dakota Representative and Senator Karl Mundt. In arguments eerily reminiscent of current debates the main congressional opponent of a strong federal pollution program in the thirties was Kentucky Senator Alben Barkley, a strong defender of the coal operators of the Ohio River valley, one of the most badly polluted areas of the country. Barkley's efforts defeated Mundt's proposals regularly and eventually resulted in the Barkley-Taft Water Pollution Control Act of 1948. The first direct descendent of today's Clean Water Act declared that pollution was best handled at the local level and provided for technical assistance from the U.S. Public Health Service and token sums for building sewers. The first Federal Water Pollution Control Act was passed in 1956 under the sponsorship of Representative Blatnik of Minnesota and it provided \$50 million a year for 10 years in matching grants to help local communities construct sewage plants.

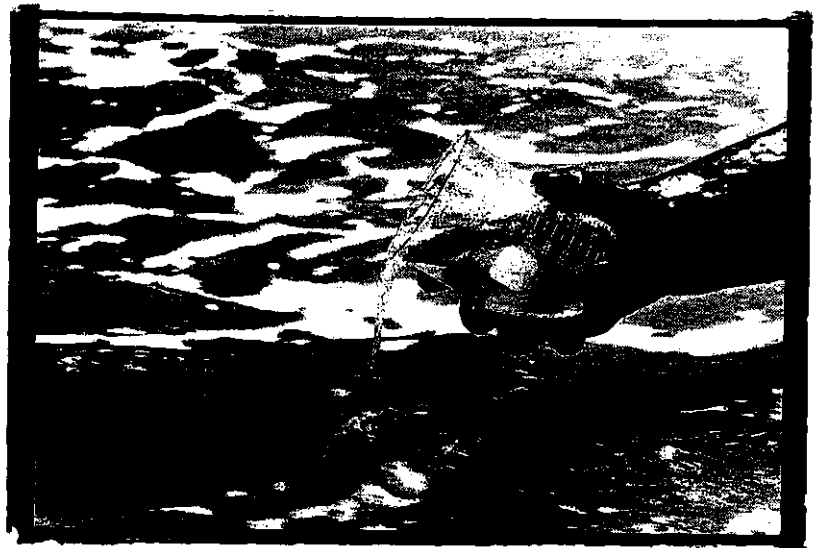
Many battles ensued through the late sixties, distinguished in part by heavy opposition from the oil industry (led by

Senator Robert Kerr of Oklahoma) and little progress was made until the enactment of the Federal Water Pollution Control Act amendments of 1972 (led in large part by Senator Muskie of Maine) which set in place the basic structure of the Clean Water Act which exists today and greatly expanded and strengthened federal powers to control water pollution. National policies, objectives and required programs were added, providing standards of achievement to be used across the country.

Two controversial underlying principles were created with the 1972 amendments which still underlie the debates of the 1990's. The first is a brief forthright declaration that "The objective of this Act is to restore and maintain the chemical, physical, and biological integrity of the nation's waters." The second striking principle was part of a series of goals and policies the first of which declared "It is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985."

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Remember when testing the waters
required just your big toe?



Please, support a strong Clean Water Act.

We need clean water. For life.

Northwest Environmental Advocates: Making Invisible Pollution Visible

by Rita Haberman

In the early 1960s, the Lower Willamette River, which flows through northwest Oregon and the City of Portland, was considered among the filthiest rivers in country. It was a dumping ground for raw municipal sewage, pulp and paper mill residues and chemicals, and cannery and slaughterhouse leftovers. Through a clean-up effort initiated by citizens and lead by former Governor Tom McCall, a new state law passed in 1967 making it illegal to put waste materials in the river without a permit from the state. To meet the water quality standards set in the 1967 law, the state gave grants to municipalities for sewage treatment plants and tax credits to industry for pollution control equipment. Secondary treatment was accomplished by all municipalities by 1969. Many herald the effort as a momentous river revival story. Most Portlanders would agree, as the river looks fine glancing down from any of Portland's many bridges and channelized banks which distance most people from the river.

According to Northwest Environmental Advocates (NWEA), however, a lot of work still needs to be done. "People are too removed from the resource," says Nina Bell, executive director of NWEA. NWEA is actively educating people about the sources, symptoms and solutions to the Willamette's water pollution problems. One of the biggest problems facing the Willamette, as well as many other rivers flowing through major metropolitan areas, is combined sewer overflows (CSOs). When it rains, and sometimes even when it's dry, untreated sewage and stormwater runoff go directly into the Willamette. If you're close to or on the river, the CSO pollution is obvious. The most dangerous pollution, however, is not obvious, even from up close. Along the lower 180 miles of the Willamette alone, NWEA has identified over 150 sources of toxic pollution. NWEA has developed a couple

of projects to educate people about these problems and help them become part of the solutions.

RIVERWATCH TOURS

In 1990 NWEA decided to start its own river tour program after hearing about other successful boat programs and looking for a way to do hands-on education. NWEA's Columbia-Willamette RiverWatch program has two primary goals, to help people develop an appreciation for river resources and an understanding of the issues threatening the rivers of their community.

NWEA leads an eye-opening, three-hour tour of the Portland Harbor, a watery "back-alley" of the city. Along this tour riverwatchers see industrial plants whose toxic waters spew and seep into the Willamette River, and an array of docks, warehouses and the discarded machinery. They also see numerous combined sewer outfalls and huge ships under repair in the Port of Portland dry docks. Other RiverWatch tours feature the Lower

Columbia River and the Columbia Slough. River tour guides educate people about the contrast of the peaceful waters with the reality of their toxic water quality.

A lot of work goes into the River-Watch program, and it wouldn't exist were it not for a dedicated crew of volunteers. Volunteers play integral roles as boat skippers, mechanics, and administrative assistants. The RiverWatch program also has a long list of local businesses who in one way or another donate services or goods to keep the program afloat.

NWEA uses the tours as a way to build their constituency. Once people bear witness to and understand some of the problems along the Willamette and the Columbia, they are more willing to get involved and support the work of NWEA. Riverwatchers sign a log book as they leave the boat. A week later NWEA contacts each participant requesting donations, support, and continued involvement, as well as feedback on the tour.

Bell offered some advice for other river advocacy organizations considering



NWEA's RiverWatch tour boat.

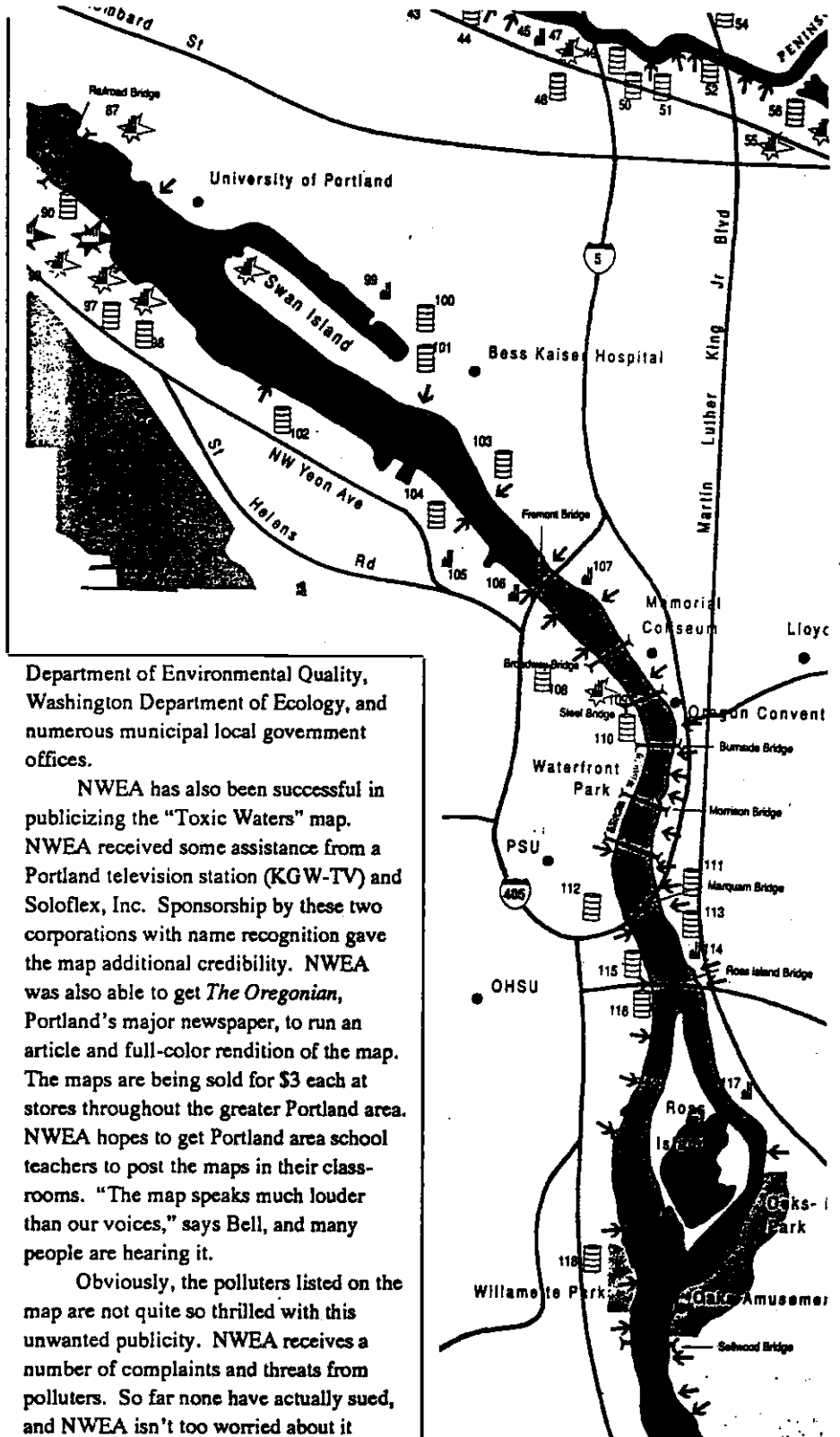
starting up a river watch program. First, get a boat that is in good working order. Second, be prepared for boat maintenance costs. They are inevitable and can be expensive. Third, recruit and maintain a solid volunteer crew. Fourth, be clear about the purpose of the tour. (NWEA has been criticized by some participants for being too negative, even though the primary purpose of the tour is to inform people about problems of the river.) And fifth, know the US Coast Guard regulations regarding such a program and plan accordingly.

Although the touring part of the RiverWatch program is costly and involves a major investment to educate a relatively small number of people (700 each year with all volunteers), NWEA feels it is worth the effort for several reasons. The program provides citizens a unique opportunity to get on the rivers, to see up close the pollution problems. It has institutionalized NWEA's use of volunteers, an asset to any environmental organization. And, perhaps most importantly, it has also helped build an active constituency for NWEA.

TOXIC WATERS MAP

Another aspect of the RiverWatch Program is educating people about water pollution issues through an educational map, "Portland/Vancouver Toxic Waters." It is a poster-sized, full-color map indicating more than 150 sources of pollution in the Willamette, Columbia, and local tributaries in and around Portland and Vancouver, Washington. On the reverse side of the map is a general explanation of the water pollution issues for the different waterways and explanations of specific polluters and how they impact the waterways. At first glance, river users can locate major sources of poisons - industrial dischargers, sewage treatment plants, combined sewer overflows, landfills containing toxic wastes, and others.

Putting together the information for "Toxic Waters" was no simple task. Luckily NWEA had an extremely dedicated and competent intern do most of the work. It required spending countless hours gathering information from the US Environmental Protection Agency, Oregon



Department of Environmental Quality, Washington Department of Ecology, and numerous municipal local government offices.

NWEA has also been successful in publicizing the "Toxic Waters" map. NWEA received some assistance from a Portland television station (KGW-TV) and Soloflex, Inc. Sponsorship by these two corporations with name recognition gave the map additional credibility. NWEA was also able to get *The Oregonian*, Portland's major newspaper, to run an article and full-color rendition of the map. The maps are being sold for \$3 each at stores throughout the greater Portland area. NWEA hopes to get Portland area school teachers to post the maps in their classrooms. "The map speaks much louder than our voices," says Bell, and many people are hearing it.

Obviously, the polluters listed on the map are not quite so thrilled with this unwanted publicity. NWEA receives a number of complaints and threats from polluters. So far none have actually sued, and NWEA isn't too worried about it either. "All we've done is compiled public information and presented it in a form that gives the big picture of Willamette and Columbia water pollution problems," says Bell.

(NWEA continued on page 15)

A section of the NWEA's Portland/Vancouver Toxic Waters Map (size is reduced slightly). Key: barrels = sites contaminated by toxins, arrows = combined sewer overflows, buildings = industrial dischargers.

Nashua River Reclassification Leads to Clean up

by Rita Haberman

In the early 1960s, the Nashua River winding through north central Massachusetts was practically dead, clogged with sewage and industrial wastes. Thanks to the vision and persistence of local river advocates, three decades of work have significantly cleaned up the river to make it an asset to the region's quality of life and economy. The tool river guardians used to kick-off the Nashua clean up was to upgrade the river's classification to swimmable/boatable status. Though the reclassification occurred several years ago, the story provides inspiration and lessons for other river guardians interested in using reclassification as a tool to restore their river.

Like most successful river protection efforts, the Nashua campaign was led by one person, Marion Stoddart. Stoddart's primary interest in the Nashua was to establish a greenway corridor along the river. It didn't take too many phone calls to realize that the State had no interest in protecting land along the polluted Nashua. This didn't stop Stoddart from working to fulfill her dream for a greenway, it just meant she first had to figure out how to clean it.

Stoddart organized some citizens to form the Nashua River Clean up Committee in 1962. They quickly ran up against an inadequate set of laws that didn't allow for public input for water quality classifications. The tables turned with the passage of the Water Quality Act of 1965, which mandated states to provide opportunities of public input prior to river use classification and provided states with some financial assistance.

To take advantage of the opportunities provided by the federal legislation in Massachusetts, Stoddart and friends organized to pass the Massachusetts Clean Water Act. It was important for a few

reasons: it would establish a new agency, the Division of Water Pollution Control; it would provide matching funds for localities to build wastewater treatment plants; and it contained a system of classifying rivers according to their future intended uses and assigned them corresponding water quality goals.

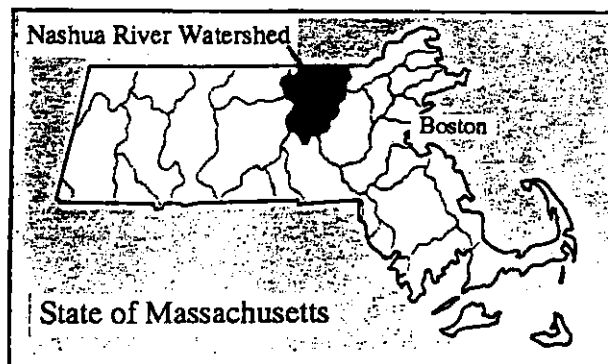
BUILDING SUPPORT FOR A NEW LAW

The Nashua Committee did a tremendously thorough job of building and organizing support for the MA Clean Water Act. Stoddart called upon her cadre of contacts from the League of Women Voters. Together they gathered over 6,000 petition signatures and convinced almost all of the mayors and state legislators representing the towns along the Nashua to sign on. Their efforts culminated with a major gathering at the Governor's office of all key government officials and media representatives of towns along the river. The Governor was very impressed by the broad base of support and number of "ordinary, busy" citizens that would come to the State House on a workday to show their support. The Governor pledged to support the bill at what turned out to be a major media event. Stoddart gave the governor a sample of filthy Nashua water in a glass jar to keep on his desk as a reminder of his pledge.

The Nashua Committee also organized a big showing of public support to clean up the rivers of Massachusetts for their U.S. Senator, Edward Kennedy, and Secretary of the Interior Stewart Udall. Kennedy and Udall announced their plans to tour the polluted rivers of Massachusetts. Stoddart convinced them to visit the Nashua, and organized a rally of 500 people to meet the politicians. It was mass support that could not be ignored. Later that day, Labor Day 1966, the Governor signed the MA Clean Water Act into law.

ORGANIZING FOR THE NEW CLASSIFICATION

Passing the law was just the first step. The Nashua Committee spent most of the next year organizing and preparing for the State hearing on the classification of the Nashua. Their goal was to have the Nashua classified as "B," meaning it was suitable for swimming, fishing, and public water supply. They contacted all of the local groups in the watershed including social, recreational, religious, and others. They educated people about the significance of the hearing, and helped them prepare testimony. Hundreds of citizens testified at the hearing supporting a "B" classification. Industry representatives and the Mayor of Fitchburg asked for a "D" classification. State and federal

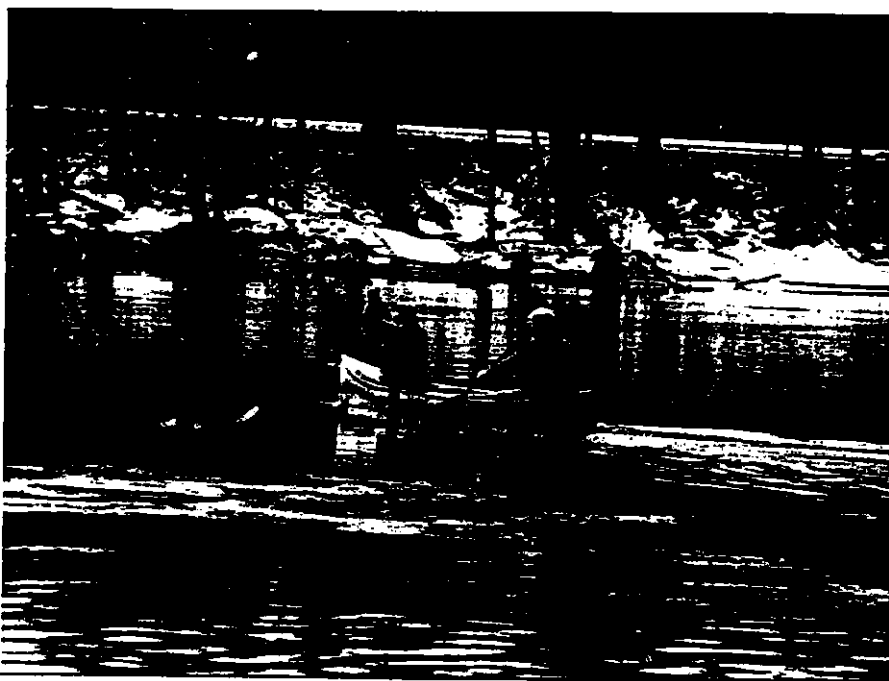


officials compromised by giving the Nashua a "C" classification with an amendment for "B"-level bacterial standards.

USING CLASSIFICATION AS BASIS FOR CLEAN UP

A great benefit to the classification was that it ensured state and federal funds would be available for river clean up work, most importantly money for building wastewater treatment plants, which were essential to the clean up effort. Over the years through cooperation among government agencies, industries, and labor unions, seven new sewage treatment plants have been built and remove 90% of the pollutants.

Although great strides have been made to restore the Nashua, problems still exist, and the Nashua River Watershed Association, established by Stoddart in 1969, continues to use the "B" classification as a tool to push for water quality improvements. With a staff of just three, the NRWA has an impressive set of programs to ensure continued progress towards water quality improvements. NRWA continues to work with all parties involved in planning and management of wastewater treatment plants. This is extremely important because during most of the year well over half of the water in the Nashua is recycled through the wastewater facilities. NRWA participates in the review of NPDES (National Pollution Discharge Elimination System) discharge permits which occur every five years. NRWA is assessing poisoned run-off in the Nashua's twenty-one subbasins and developing plans to control impacts. They are working with paper companies to address the issue of toxic sediments behind dams. They implement an "Adopt-A-Brook" program to get young people interested and involved in water quality issues and to supplement the testing done by the State. The NRWA also comments on land development projects (road widenings, shopping centers, siting of hazardous waste facilities, etc.) that could have detrimental impacts on water quality. And perhaps one of the most valuable services



Canoeists on the Nashua River.

the NRWA provides is to act as an information clearinghouse to help local communities in the watershed develop effective bylaws to protect water quality (sediment erosion control, growth management, river corridor buffers, etc.).

ECONOMIC BENEFITS OF CLEAN UP

The argument that environmental clean up means economic hardship doesn't go too far in the case of the Nashua. No hard-core studies document this, but several observations are worth noting. First, by acting quickly municipalities and industries along the Nashua were able to get federal and state funds to pay a significant portion of the costs for many wastewater treatment facilities. Second, before the Nashua clean up, riparian land was virtually worthless. Today riverfront property is assessed at higher value than adjacent property. Many of the old factories along the river are being converted to condominiums, restaurants, and offices. And third, three decades ago, no one wanted to go near the Nashua, but today it's an important recreational resource. The Nashua is becoming well known for having a great bass fishery.

Fishers travel from throughout the eastern U.S. to participate in bass fishing tournaments on the Nashua.

Thirty years ago many people considered the Nashua a dead river and the task of cleaning it up impossible. A milestone in the Nashua clean up effort was its upgraded classification, and that classification continues to be a standard that Nashua river guardians hail as a goal to support their continued river advocacy work. River classification can also be a valuable tool for other river guardians.

For more information about the Nashua River clean up, refer to Restoring the Earth: How Americans are Working to Renew Our Damaged Environment by John Berger (1987 Anchor Press Doubleday), and for kids (and adults), refer to A River Ran Wild: An Environmental History by Lynn Cherry (1992 Harcourt Brace Janovich).

For more information about the good work of the Nashua River Watershed Association, contact NRWA, 609 Massachusetts Avenue, Lunenburg, MA 01462-1352, (508) 4582-0922.

Wisconsin's "Bad Actors" Program: Controlling Agricultural Runoff

by Ed Odgers,
Wisconsin Department of Agriculture,
Trade and Consumer Protection

Since 1984, Wisconsin's programs to address nonpoint pollution have included regulatory or "bad actor" components in addition to voluntary cost-share initiatives. Though the two approaches are complementary, they have historically been applied through independent programs. Right now, state legislators are considering expanded regulations to supplement traditionally voluntary programs.

Following an intensive cleanup of industrial and municipal point sources of pollution during the 1970s, nonpoint pollution now represents the gravest threat to Wisconsin's abundant ground and surface water resources. According to a recent assessment, 40 percent of Wisconsin's rivers and streams and 93 percent of its lakes are degraded by nonpoint pollution. More than 10 percent of the state's 700,000 private water supply wells are contaminated with nitrate levels exceeding state standards, and again the blame is placed on nonpoint sources.

Though urban stormwater runoff and construction site erosion are contributing sources, agriculture continues to be the major source of nonpoint pollution. Cropland erosion, manure runoff from feedlots, over-application of fertilizers, leaching of pesticides, and stream banks trampled by cattle are all examples of agricultural pollution sources.

With 80,000 farms, 5.4 million head of cattle and hogs, and 1.2 million acres of cropland, agriculture is the dominant land use in Wisconsin and the state's largest industry. The large number of potential pollution sources places serious limitations and demands on the programs charged with the cleanup. The economic stress

now shadowing agriculture deepens the challenge.

"BAD ACTOR" REGULATIONS

Following a protracted legislative debate that came to be known as the "manure wars," the Wisconsin state legislature first established annual waste management regulations in 1984. These landmark regulations set up a two-tiered

According to the EPA's *1990 National Water Quality Report to Congress*, nonpoint source pollution is the main reason rivers and lakes fail to meet clean water standards.

Agricultural runoff was by far the most extensive source of pollution, responsible for impairing about 60 percent of the degraded rivers.

approach, separating large farms of more than 1,000 animal units from other livestock producers. As a result, about 40 large operations in Wisconsin are now required to meet state standards for runoff control, manure storage, and land application of manure through a permitting system. The remaining 70,000 livestock producers are subject to clean-up orders if a complaint is registered against them and subsequent investigations determine if there was a "significant discharge" of pollutants. Each year, approximately 200 citizens' complaints are made, resulting in about 40 clean-up orders or "Notices of

Discharge."

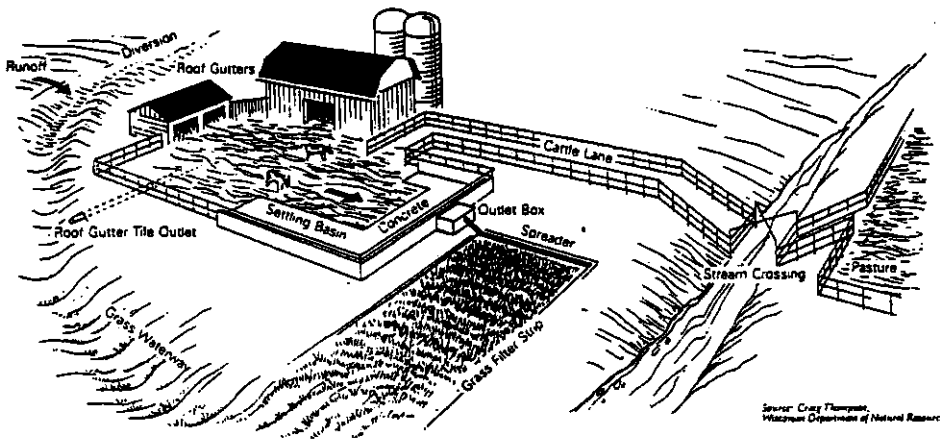
The vast majority of these orders have been issued for manure runoff from feedlots to surface waters. Corrective measures for feedlot runoff problems may be as simple as diverting clean stormwater runoff around the barnyard and fencing off livestock to provide protective buffer zones along stream or lake shores. However, critical sites may require the installation of more costly structural practices for the containment and filtration of the manure-laden runoff.

Overflow and seepage from improperly constructed or mismanaged manure storage systems represent the next largest category of problems. Though less common, these problems can result in equally devastating damage to the surface water and an even greater threat to ground water.

Wisconsin state agencies and county conservation departments work in concert to create a cooperative environment for the resolution of these animal waste management problems. When cited, a farmer is allowed from 60 days to two years to make management changes or install corrective measures. During this time, fines are not imposed unless serious negligence is involved. Cost-share grants for up to 70 percent of the costs for corrective measures are provided in the approximately 20 cases a year that require capital improvements. Project grants average about \$15,000 and usually are accompanied by technical assistance provided by county-based conservation technicians. This kind of assistance has been decisive in helping farmers comply with clean-up orders.

In 1988, another regulatory tool was enacted to address pollution from nonpoint sources other than animal waste, such as eroded sediment, pesticide and fertilizer runoff, and stream bank erosion.

Typical Barnyard Runoff Management System



This more recent legislation was born of the state's frustration in attempting to halt one farmer's negligent tillage practices, which dumped thousands of tons of sediment into a popular lake, but it is not restricted to agricultural pollution sources. The resulting program is limited in scope; only about six enforcement actions are projected annually. Examples of recent enforcement actions have involved the severe erosion of a ski hill, and sediment runoff from a golf course under construction.

Administrators of both these regulatory programs agree that the current number of clean-up orders is just the tip of the nonpoint pollution iceberg. The current system is limited by staff shortages and the need to rely on complaints by private citizens to target potential sources. Ultimately, a more comprehensive mechanism will be needed to erect a statewide cleanup.

PREVENTATIVE LOCAL ORDINANCES

Some Wisconsin counties are pursuing a preventative, regulatory approach to nonpoint pollution. Following state guidelines, 30 of the state's 72 counties have enacted manure storage facility ordinances primarily intended to protect ground water. Permits required for the installation of storage facilities ensure that these systems are designed and installed according to approved standards.

A model ordinance is also being developed by state agriculture department

officials for streambank protection from uncontrolled livestock access. As with manure storage ordinances, counties will be encouraged to develop streambank protection ordinances tailored to their needs and administrative capabilities.

To complete the picture, municipalities have been encouraged to adopt construction site erosion ordinances and stormwater control plans in an effort to curb non-agricultural sources of nonpoint pollution.

PROPOSED LEGISLATION

Wisconsin's flagship nonpoint program is its Priority Watershed Program, with an annual budget of \$7 million and a project area encompassing 37 critical watersheds. Voluntary participation rates are 70 percent, yet many watershed projects have fallen short of their goals because key polluters have failed to participate.

Recognizing the slow progress and unfulfilled goals brought about by priority watershed "holdouts," the legislature is now considering modifications to this traditionally voluntary program that would initiate a regulatory mop-up if voluntary efforts fail to achieve project goals.

Proponents of legislation to incorporate "bad actor" provisions in the Priority Watershed Program maintain that regulations are necessary to protect the state's investment in these watersheds and to assure progress toward pollution reduction. Additionally, they argue that the threat of

Nonpoint may be nonword

Ask the average person on the street what the term nonpoint source pollution means and at the very least you're likely to get a blank stare. That's why some clean water groups and the US EPA, are advocating a change in terminology to describe what usually ends up in storm sewers.

At a recent forum sponsored by the Environmental and Energy Study Conference, the Natural Resources Defense Council (NRDC) posed the possibility of coining a new term "polluted runoff" to better describe what currently is called nonpoint source pollution.

pending regulations will stimulate voluntary participation, and clean-up orders rarely will be needed.

Opponents argue that forcing participation in watershed projects would impose more stringent standards on farm operations in these watersheds than would be required outside the watershed boundaries. They maintain that increased and uniform application of current statewide regulations would be sufficient to bolster voluntary program participation.

In summary, Wisconsin's present approach relies on both voluntary and regulatory tools to address agricultural nonpoint pollution. This combination is generally considered one of the most progressive systems in the nation, yet more rapid progress is needed if the state hopes to protect and restore water quality. It now appears that regulations will see expanded use as the state searches for ways to accelerate the cleanup of nonpoint pollution. Success will depend on how well state programs capitalize on the complimentary effect that can be achieved with a balance of voluntary and regulatory tools.

This article was reprinted from EPA JOURNAL Nov/Dec 1991. Refer to References on page 14 for full cite. #

Solar Aquatics: Alternative Wastewater Treatment Technology

by Rita Haberman

Federal funding for municipal wastewater treatment is one program under the Clean Water Act of 1972 that has facilitated significant improvements in water quality. The federal cost-sharing program has made it financially possible for many municipalities throughout the country to build much needed wastewater treatment facilities. Unfortunately through the years funding has dwindled, and the 1987 reauthorization of the Act called for an eventual phase out of federal assistance programs. State revolving loan funds have provided some assistance, but they are a drop in the bucket compared to estimated needs. While funds become scarcer, the need for new and better wastewater treatment facilities only becomes greater. The need for cost-effective alternatives continues to grow, and one organization is dedicated to answering the call.

Under the direction of Dr. John Todd, Ocean Arks International, a Massachusetts-based non-profit center for water awareness and action, develops innovative "solar aquatics" technologies. Solar aquatics harness certain biological processes and imitate the way nature cleans dirty water, only much more quickly and thoroughly (refer to sidebar for description).

The Town of Harwich, Massachusetts established one of the first successful small-scale solar aquatics facilities in 1988. The results of the facility designed to treat 900 gallons of concentrated waste per day were impressive. During the facility's operation, overall biological oxygen demand removal was more than 99 percent, suspended solids removal was more than 98 percent, and nitrogen removal was over 85 percent. Fourteen of fifteen volatile organic compounds evident in the influent were not found in the effluent. Fecal coliforms were dramati-

cally reduced. These positive results from the small-scale facility prompted the town of Harwich to construct a full-scale pilot facility in 1990. Other demonstration projects are underway in California, Vermont, Arkansas, and elsewhere.

Solar aquatics technology differs from conventional wastewater treatment in many ways. First, ecological engineering uses no potentially hazardous chemicals or compounds such as chlorine or aluminum

silt. The systems are designed to imitate the way the earth's ecosystem cleans dirty water, but to do so more efficiently and quickly. Second, rather than inhibit the growth of algae, ecologically engineered systems induce algae to grow so there is a photosynthetic base. Translucent tanks are used to allow sunlight to enter and promote life. Where conventional wastewater treatment settles and produces sludge, the goal of a natural system is to suspend sludge and transform it within the ecosystem using hydroponically-grown plants. By these methods, sludge volumes are dramatically reduced. In addition, natural system facilities lack the odor that frequently comes from conventional treatment plants.

Perhaps the most impressive aspect of the solar aquatic system is its cost-effectiveness. For example, one northeastern community found that it would cost around \$10 to \$15 million to build a conventional septage treatment plant, compared to approximately \$4 million it would cost to construct a natural system facility. Solar aquatics technology is cost-effective at a variety of scales, making the technology applicable to a variety of situations — including animal feed runoff, small community applications (like the one in Harwich), and supplementary systems to alleviate increasing pressure on conventional metropolitan treatment plants. Solar aquatics technology means cleaner water at lower costs and replacement of huge centralized sewage treatment with decentralized, natural solar aquatic greenhouses — attributes holding great promise for meeting our wastewater treatment needs safely.

For more information about solar aquatic greenhouse technology and other projects of Ocean Arks International, write or call: Ocean Arks International, 1 Locust Street, Falmouth, MA 02540, (508) 540-6901.

Solar Aquatics: How it works

Large, translucent, cylindrical tanks are placed in rows inside a greenhouse, positioned and piped in a series so that gravity is the driving force creating a stream through each line. The first tanks contain largely bacteria, algae, and snails, while subsequent tanks downstream contain more complex life forms, including higher plants, other mollusks and fish. Wastewater is pumped into the first tanks where microscopic bacteria attack or consume organic matter, or nutrients, which causes their populations to grow. Algae, in turn, thrive on nutrients released by the bacteria and grow rapidly because of the abundant food source. Snails then consume the algae, and diverse foods are created: some organisms breaking down compounds, others taking them up, still others acting as catalysts for many processes which comprise the food chain. Further on, plants are rafted on the water allowing their oxygen rich roots to fall beneath the surface where higher organisms graze. In the last tanks fish, such as tilapia and bass, swim around in clean water. Final purification takes place in an engineered marsh.

Zero Pollution Discharge: Closing the Loop

by Alana Murphy and Peter Lavigne

The Clean Water Act is sometimes best understood by the implications of what it doesn't say alongside of what it explicitly states. The opening text of the act is a bold and far-reaching objective declaring "The objective of this act is to restore and maintain the chemical, physical and biological integrity of the nation's waters." It does not balance environmental concerns against economic interests or seek to achieve water quality up to a specified limit or to clean certain waters or only to maintain existing water quality. Instead it sets clear and unambiguous environmental objectives.

Congress followed this objective by setting a series of goals and policies in its 1972 expansion of federal water pollution programs. The first, most controversial, and as yet unmet of these goals declared "It is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985." Ignored, derided and mishandled by industry, the E.P.A. and environmentalists alike the "zero discharge" goal is nevertheless fundamental to the entire concept and programs of the Clean Water Act. It represents a major policy shift from earlier efforts to control water pollution which were based on the "dilution is the solution to pollution" principle. Instead of determining how much pollution could be tolerated by a river, lake or ocean, and then dividing this "capacity for pollution" among different sources, Congress stated (and has held to the principle through reauthorizations in 1977, '81, '87 and '88) that pollution discharges were not to be tolerated. Ultimately as discharge elimination becomes technologically and economically feasible, the clear intent is to ensure water will no longer be used as a pollution transport medium.

In an effort to bring attention to this original goal former Massachusetts Lt. Governor Evelyn Murphy initiated two

major forums on zero pollution discharge as part of the 12th and 14th annual New England Environmental Conferences in 1990 and 1992 at Tufts University. Discussion at the March 1992 Symposium focused on the marketing, technology, economics and environmental ethic behind zero pollution discharge and highlighted the efforts of corporations (multi-national and local) to eliminate pollution discharges from their industrial processes. Participants included senior management representatives of 3M Corporation, Polaroid, Gillette, the Meredith-Springfield Company, Passamaquoddy Technologies and the Coalition For Environmentally Responsible Economies (CERES).

Lt. Governor Murphy, who formerly served as Secretary of Environmental Affairs and earlier as Secretary of Economic Affairs in Massachusetts and who holds a Ph.D in Economics, noted it was incumbent upon participants to take this discussion and expand it, to explore the progress being made by industry and to reinforce that zero pollution discharge makes sense economically as well as environmentally. Particularly striking, she noted, was the encouragement she received from members of the industrial sector when she first began developing her zero pollution discharge policy in Massachusetts. People in the public sector and even many environmentalists advised her that zero discharge was unrealistic and that she should pick a reasonable goal to pursue. *It was the business people she spoke with who said "go for zero."* They were the ones to say that the mindset of industry had to change. If elimination of pollution were the goal then an entire manufacturing process would be re-designed, while if 50% reduction were the goal, then 50% pollution would be accepted as the norm and processes would be adjusted, but not re-thought.

The emphasis throughout concentrated on the necessity to shift economic paradigms and mindsets, to look at the

front-end of the industrial process rather than at the end-pipe. As Tom Tureen of Passamaquoddy Technologies put it "Pollution is a function of waste. Waste is costly."

Harry Fatkin of Polaroid noted the need to "treat the disease, not the symptoms." One of Polaroid's major accomplishments was elimination of mercury from their batteries - achieved when the company engineers stopped trying to reduce the amount of mercury and looked at whether any mercury was necessary — a prime example of changing a mindset and re-thinking an entire process. Fatkin also presented what he called the "4-Step Regulatory Rotary (> standards and permits > abatement technology > changing values and increased expectations > and inadequately controlled emissions >) which traps many companies and he noted Polaroid's efforts to get off the rotary trap with its Toxic Use and Reduction Program.

Other interesting examples came from all the participants but one of the most extensive was presented by 3M's Tom Zosel who described 3M's 3P Program (Pollution Prevention Pays) and the new 3P+ (Pollution Prevention Plus) program which examines the total environmental impact of a product, including the manufacturing process, packaging and disposal. For any business the bottom line is important and Zosel stresses that 3M is investing enormous sums in pollution prevention, approximately \$500 million since 1975. 3M has also established an environmental leadership program for its employees. In looking beyond zero pollution release, 3M has adopted sustainable development as its goal.

On the other end of the size spectrum, Tom Tureen, Chair of Passamaquoddy Technologies, a manufacturing and holding company owned by the Passamaquoddy Indians in Maine, described

(Zero continued on page 14)

Selected References on the Clean Water Act

A Citizen's Guide to Clean Water, 1990, The Izaak Walton League of America, 1401 Wilson Blvd., Level B, Arlington, VA 22209, (703) 528-1818, (\$5.00, (xerox copy)).

Controlling Nonpoint Source Pollution: A Citizen's Handbook, 1988, Hansen, Babcock and Clark, Available from WWF Publications, PO Box 4866, Hampton Station, Baltimore, MD 21211 (410) 516-6951 (\$7.50).

"Citizen's Handbook on Water Quality Standards," 1987, Natural Resources Defense Council, 1350 New York Avenue, NW, Suite 300, Washington, DC 20005, (202) 783-7800, (\$4.00).

"A National Agenda for Clean Water: Prevent, Protect and Enforce," 1992, Clean Water Network, 1350 New York Avenue, NW, Suite 300, Washington, DC 20036, free.

Nonpoint Source Pollution: Runoff of Rain and Snowmelt — Our Biggest Water Quality Problem in *EPA JOURNAL*, Nov/Dec 1991, Volume 17, Number 5, 22K-1005, (\$3.50 to Superintendent of Documents, GPO, Washington, DC 20402).

The Poisoned Well: New Strategies for Groundwater Protection, 1989, Jorgenson, Editor, Island Press, Star Route 1, Box 38, Covelo, CA 95428, (800) 828-1302.

"River Protection and Water Use — Setting the Conservation Agenda for the '90s," 1991, American Rivers, 801 Pennsylvania Avenue, SE, Suite 400, Washington, DC 20003.

Restoration of Aquatic Ecosystems, 1992, National Research Council, National Academy Press.

"The Imperiled Status of North American Aquatic Animals," by Larry Master, Chief Zoologist, The Nature Conservancy, in *Biodiversity Network News*, Volume 3, Number 3, 1990.

1992 River Conservation Directory

The Directory, developed by American Rivers and the National Park Service's Rivers, Trails and Conservation Assistance Program, includes agencies and organizations, both public and nonprofit, whose missions directly involve river conservation. The 150-page document is organized by federal agencies, national organizations, multi-state organizations, and state agencies and organizations. It also includes an index. It's an excellent resource for anyone involved in river conservation.

Copies of the Directory are available for \$10.00 by writing or calling:

U.S. Government Printing Office
Superintendent of Documents
Mail Stop: SSOP
Washington, DC 20402-9328
(202)783-3238

Request the Directory by its title and stock number, 024 005 01104 8

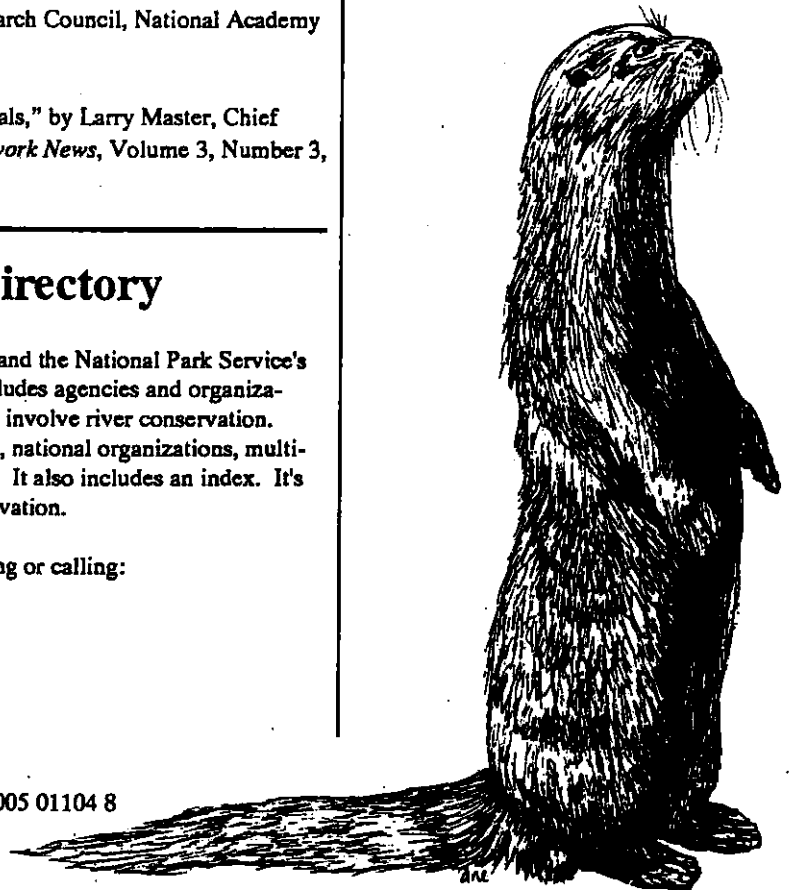
River Voices, 9/92

(Zero continued from page 13)

how they bought a failed and bankrupt cement processing plant in Maine and turned it into a lucrative profit making venture by eliminating several waste streams and converting them to useful end products — creating major water quality improvements in the area's streams and boosting profits in the process.

Common themes which emerged from the symposium showed profitable companies going beyond compliance with regulations, beginning to tackle problems comprehensively and looking forward to compliance with the zero discharge policy of the Clean Water Act. River groups would do well to campaign for federal and state enforcement of the zero discharge goal and to encourage polluting industries to change their approach to the problems.

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(NWEA continued from page 7)

Bell also offered some advice for others interested in developing a "toxic waters" map. First, have an idea of how large your finished product will be. This will give you a good idea about how much information you can actually include. Second, maximize the number of sources of information. Check the files of agencies at the federal, state, and local levels. Third, get to know government agency personnel responsible for surface water quality, ground water and hazardous wastes. You'll need their help locating and interpreting information. Fourth, keep a paper trail of information. Document your decisions to include or exclude information. Inevitably, you will need to rely on some of this information to back up your descriptions, as well as to make sure final edited text is accurate. Fifth, for simplification and clarity, select and define site categories for inclusion. NWEA used the following categories: major and minor industrial dischargers, sites contaminated by toxins, major and minor industrial dischargers with sites contaminated by toxins, sewage treatment plants, combined sewer overflows, and landfills containing toxic wastes. Sixth, be objective and consistent in describing polluters. Don't misrepresent the facts. Seventh, list your caveats and include a disclaimer. Say up front what you have and haven't done. Have a lawyer review your caveats before going to press (just in case). And finally, be prepared to be threatened by industry lawyers no matter how accurate your information is.

Through the RiverWatch boat tour program and the "Portland/Vancouver Toxic Waters" map, NWEA seeks to help people become reconnected to and involved in the management of Portland's rivers and streams. The first step towards public support for river protection is public awareness about the problems. NWEA is well on its way and provides some good ideas for other river activists as well.

For more information about Northwest Environmental Advocates or a copy of the "Portland/Vancouver Toxic Waters" map (\$3.00), contact NWEA, 133 SW Second Ave., Suite 302, Portland, OR 97204.

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Celebrate the Twentieth Anniversary of the Clean Water Act

October 18, 1992 marks the twentieth anniversary of the passage of the Clean Water Act. President Bush has issued a Presidential Proclamation designating 1992 as the "Year of Clean Water". The Congress also has issued a joint resolution along with 35 State Governors declaring 1992 the YEAR OF CLEAN WATER and October as CLEAN WATER MONTH.

The Year and Month of Clean Water is upon us, and it's a great opportunity to educate and involve others about the importance of clean water. Numerous events and activities throughout the country are scheduled for the anniversary. For a list of events scheduled for your area, contact the America's Clean Water Foundation, 750 First Street, NE, Suite 911, Washington, DC 20002, (202) 898-0902, .

If an event is not already scheduled in your area, organize one. Here is a list of ideas and America's Clean Water Foundation has more.

- * Plan a field trip to view your watershed or aquifer recharge zone.
- * Help your water works or sewage treatment plant hold a tour or open house.
- * Stencil storm drains with "Dump No Waste" and fish graphic to educate people that what goes into storm drains goes into the river.
- * Clean up a designated area: stream, river, beach, wellhead, etc.
- * Plant appropriate vegetation to prevent erosion on banks or upland slopes.
- * Take photographs of your river; make a display or produce a slide show.
- * Host a "River Awareness Day" or "Clean Water Fair" that involves all the water interests in your community.
- * Hold a "Clean Water Swimathon"; participants can swim a designated stretch of your river. Sponsored participants will raise money for river restoration projects and programs.
- * Organize an essay, poster, model-building or poetry contest; display entries in store windows, city hall, libraries, etc.
- * Organize a household hazardous water clean up day to collect and dispose of chemicals in an environmentally safe way.
- * Hold a community forum on water-related issues such as landfill closure, water conservation, etc.
- * Conduct a water tasting contest of municipal supplies in your county or region. A taste-off can teach people about the differences in water quality in your areas. Compare the cost of local water versus bottled water.
- * Encourage museums, nature or science centers to conduct programs with a clean water theme.

Action Alert:

Reforming National Flood Insurance: October 1992 Opportunity for River Protection

by Peter Lavigne

Flooding along our rivers, estuaries and coastlines accounts for over 70 percent of natural disasters in the United States. Private insurers historically have refused to underwrite flood insurance because of the certain losses and generally high risk represented by insuring houses and other building constructed in high-hazard floodplains and erosion zones. In the absence of private flood insurance, Congress established the National Flood Insurance Program (NFIP) in 1968 to prevent taxpayer dollars from repeatedly pouring out of the Treasury and onto the floodplains in the form of federal disaster assistance funds and infrastructure subsidies. In exchange for federal flood insurance subsidies flood-prone communities were to implement measures that would guide development and redevelopment away from hazardous and environmentally sensitive floodplains.

Unfortunately, the opposite has happened. The availability of federal flood insurance has subsidized unwise riverbank and estuarine development and acted to encourage new development of wetland and floodplain areas. Aside from the negative environmental impacts of skyrocketing new and second home shoreline development, the financial impacts of the federal subsidies have led many commentators to refer to the NFIP as the savings and loan disaster of the coasts. With more than \$220 billion worth of policies, the NFIP is now one of the nation's greatest domestic financial liabilities. Yet, in early August, pre-Hurricane Andrew, there was less than \$360 million to pay claims. According to the federal agency that runs the program, FEMA, a bad storm year could cost \$4 billion in claims: a bill that will be paid by the federal taxpayer.

Although the vast majority of flood insurance policies are for dwellings along coastal rivers and shorelines, the NFIP impacts nearly every river subject to flooding in the United States. The NFIP encourages destructive riverbank development (most banks will not issue construction or purchase mortgages in designated floodplains without flood insurance coverage) and drives the creation of riparian area roads and other destructive infrastructure.

THE SOLUTION: LEGISLATION TO REFORM THE NATIONAL FLOOD INSURANCE PROGRAM

Between May 1989 and July 1990, ten hearings were held to consider NFIP reforms in the House Committee on Banking, Housing and Urban Affairs. Under the leadership of Representative Douglas Bereuter (R-NE), Ben Erdreich (D-AL) and Tom Carper (D-DE) a bipartisan bill, *The National Flood Insurance Mitigation, and Erosion Management Act (HR 1236)* was crafted with the active participation of the Federal Emergency Management Agency, and input from the National Academy of Sciences, the Coastal States Organization, and the Association of State Floodplain Managers. More than 80 conservation groups around the country support the measure. HR 1236 passed the House in May of 1991 by an overwhelming vote of 388-18.

A companion bill, S. 1650, was introduced by Senator John Kerry (D-MA) in early August 1991 with several co-sponsors. A national misinformation campaign by the National Association of Homebuilders and the National Association of Realtors prompted concerns over portions of the bill. A compromise bill, S.

2907, which addresses concerns raised by developers, was introduced by Senators Kerry and Cranston (D-CA) in June 1992. Co-sponsors are Senators Adams (D-WA), Chafee (R-RI), Glenn (D-OH), Metzenbaum (D-OH), and Sarbanes (D-MD).

PUSHING FOR ACTION IN OCTOBER '92 -- CALL YOUR SENATORS NOW

Concerned that reform might alert prospective buyers to coastal and shoreline hazards, and aware that reform would end a federal subsidy to risky but lucrative shoreline development, a vocal element in the National Association of Homebuilders and the National Association of Realtors are running an election year campaign to halt progress on the issue in the Senate.

Our Senators have only a few weeks left to enact reform. S. 2907 is badly needed to protect the federal treasury, public safety, and the environment from unwise shore development.

* S. 2907 makes clear that it is bad federal policy to make the taxpayer financially support bad development in hazardous and storm-prone areas. S. 2907 would prohibit new federal flood insurance for new development in eroding estuarine, marine and Great Lakes areas, thereby protecting the federal taxpayer from underwriting hazard-area development.

* S. 2907 would give incentives, such as grants and premium reductions, to states, communities, and individuals that take measures to reduce flood losses and discourage hazardous development.

* S. 2907 would direct the National Flood Insurance Program to recognize and promote the protection of critical floodplain area which slow and diffuse

flood waters, reduce flood damage and preserve groundwater, fisheries, and wildlife habitat.

S. 2907 neither takes property nor bans development. It phases out a subsidy, but only after offering significant and generous assistance to those who are threatened with near-term inundation due to erosion. It spares the taxpayer from insuring a growing threat to the Treasury, public safety, and the environment: the development and redevelopment of coastal high-hazard areas. At a time when our inner cities need rebuilding, we cannot afford to subsidize the building and rebuilding of hazardous coastal structures.

FOR MORE INFORMATION CONTACT:

Beth Milleman / Jim Stromseth at the Coast Alliance 202-546-9554 or Kathie Dixon / Dave Conrad at the National Wildlife Federation 202-797-6800.

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River Conferences

Citizen's Training Workshop for National Wild and Scenic Rivers Washington, DC -- November 20 and 21, 1992

The workshop will address Wild and Scenic protection for rivers flowing through both federal and private lands. Citizens will learn about the intricacies of the Wild and Scenic Act and of Congress, as well as citizen involvement in the successful passage of Wild and Scenic bills over the next four years. Workshops will cover the "how to's" on:

- * using the media and developing educational material
- * constituency building and "combatting the opposition"
- * lobbying Congress

The cost of the two-day workshop is \$20. Through the assistance of River Network and Recreational Equipment, Inc., some scholarship monies will be available. Space is limited to 50 attendees.

For more information contact: American Rivers, 801 Pennsylvania Avenue, SE Suite 400, Washington, DC 20003, (202)547-6900.

Managing Riparian Areas: Common Threads and Shared Benefits A Western Regional Conference Albuquerque, New Mexico -- February 4-6, 1993

The purpose of the conference is to bring together federal, state and local agencies and private sector interests involved in the management and/or use of riparian areas to discuss techniques for an integrated approach to management of riparian areas the cross jurisdictional boundaries -- international, federal, Indian, state, local and private. The conference will feature practical approaches based on experiences throughout the West.

For more information, or to be added to the conference mailing list, write to the address below:

1993 Riparian Conference
Water Resources Research Center, University of Arizona
350 N. Campbell Avenue
Tucson, AZ 85721
(602) 792-9591

West Virginia Rivers Conference Hawk's Nest State Park on the New River -- November 6 and 7, 1992

The Mountain Resource Conservation and Development Area, Inc. is organizing the first West Virginia Rivers Conference. Everyone with an interest in river conservation is invited to participate. For more information contact: Mountain RC&D, 204 1/2 W. Maple Ave., Fayetteville, WV 25840, (304) 574-3036.

Letters to the Network

Send Letters to the Network to: River Network, attn: River Voices editor, PO Box 8787, Portland, OR 97207.

Keeping Track of the Resource Abuse Movement

Dear River Network:

The June 1992 issue of *River Voices* provided some very informative and helpful pieces about the resource abuse movement. Please inform your network of river activists about The Wilderness Society's New Voices campaign designed to counter the resource abuse movement by working with concerned citizens and providing them media training, technical and financial assistance. Our New Voices newsletter is published monthly. We try to keep activists informed about the resource abuse movement and about issues they are likely to encounter when dealing with anti-environmentalists. It is free, and can be had by writing me at:

The Wilderness Society
7475 Dakin Street, #410
Denver, CO 80221

Thanks!

Kathy Kilmer

Help Save Valley Creek, a National Treasure

Dear River Network:

I started a "Keeper of the Stream" program within our Trout Unlimited Chapter to try to preserve Valley Creek, Little Valley Creek and their 22-square-mile watershed. I have applied many of the ideas and suggestions that I find in your *River Voices* publication.

Everything in this watershed feeds down through the final two miles of Valley Creek which passes George Washington's Headquarters and is within the Valley Forge National Historical Park.

The park estimates that 4 million visitors enjoy this park every year. It is a national historical park and should be of concern and a call to action by Americans everywhere!

It is a stream with merit! One of Pennsylvania's notable limestone streams, with a naturally reproducing population of wild brown trout...exceeding by three times that which the Pennsylvania Fish Commission notes as "Class A" population.

It is currently designated by the Pennsylvania Department of Environmental Resources only as a "cold water fishery." It is located 18 miles from Philadelphia and in a rapidly developing area. It has already been contaminated by PCB's, but still supports an increasing wild trout population. It needs maximum protection.

The Environmental Quality Board will meet in mid-September to review the upgrading of the stream to one of the "special protection designations." The

only designation that will fully protect this stream is that of "exceptional value." The stream does in fact meet the criteria for this designation, but the politics of "development" are striving to prevent this designation. There is a proposal to build a sewage treatment plant at the headwaters and to discharge 500,000 gallons of sewage per day into Valley Creek.

The only thing that can elevate the stream to "exceptional value" is extraordinary "public comment." We are working very hard on a local level for this "public comment," but this stream is of national significance and we need national input from voices all across the country.

Please write to the PA DER expressing your support for the upgrading of Valley Creek, the waters of *your* national park. Letters should be directed to: The Honorable Arthur Davis, Secretary, PA Department of Environmental Resources, PO Box 2063, Harrisburg, PA 17105-2063. Public comment period is open through mid-October.

Thank you for your support.

Sincerely,

Wes Wood, Valley Creek Coordinator,
Valley Forge TU

River Network's River Clearinghouse Services

Toll-free problem solving service:

1-800-423-6747: Call us and we'll give you whatever help we can to save your river.

Networking:

We maintain a database of over 1,500 grassroots river conservation organizations. Tell us what you are working on and we'll put you in touch with other activists and organizations who can share their experience with you.

Lotus Software:

In cooperation with the Lotus Development Corporation, River Network is offering a free copy of Lotus 123 software to any organization working on river protection. Lotus 123 is both a spreadsheet and a database software program compatible with personal computers. If your group is interested, please send River Network a letter that includes the following information:

- 1) a statement that your group is incorporated
- 2) a brief description of how your group plans to use the Lotus software, and
- 3) what size computer disks (3.5 or 5.25 inch).

Special Publications:

River Wealth a collection of fundraising ideas and techniques used successfully by grassroots river groups. Ideas are organized by membership, business support, events, and sales and services. \$5.00

River Wise a collection of public education techniques used successfully by grassroots river groups to educate their communities about the values and issues of their local rivers. \$5.00

C(3) or C(4) - a manual to lead river groups through the decision-making process of whether to apply as 501(c)(3) or 501(c)(4) tax-exempt status. \$2.00

Case studies:

We document and distribute "success stories" of river conservation to help activists avoid reinventing the wheel. We recently published a booklet of five case studies, entitled *People Protecting Rivers: A Collection of Lessons from Grassroots Activists*. The featured stories are the Charles in Massachusetts, Clark Fork in Montana and Idaho, Gauley in West Virginia, Sacramento in California, and Upper Mississippi in Minnesota. The case studies are organized by issues for easy reference. \$2.00

Fundraising Training Videos:

If your group is considering a fundraising campaign, you may want to consider some training first. Kim Klein, a national fundraising trainer and author of *Fundraising for Social Change*, with help from the Partnership for Democracy, has produced six videos:

Planning for Fundraising

Special Events

The Role of the Board

Asking for Money & Prospect Identification

Major Gift Solicitation

Raising Money by Mail

River Network has purchased a set of these videos. If you'd like to borrow them, free of charge, give us a call.



Directory Of River Information Specialists

DORIS is a free service to put you in touch with volunteer specialists with expertise on river-related issues. River Network has recruited over 500 river specialists within conservation organizations, professional societies, state and federal agencies, and our national network of river guardians. DORIS specialists have expertise in a wide variety of issues ranging from hydropower to streamside development to pollution. Information about the DORIS specialists, including how they'd like to help grassroots river activists and areas of expertise is compiled on a computer database housed at River Network.

To find out more information about DORIS and how it can help you and your group protect rivers, call us toll-free at (800) 42-DORIS. We'll link you up with some free advice.

We'd like your input to make DORIS even better. We are always interested in expanding the team of DORIS specialists. If you have experience or expertise in any aspect of river conservation that you feel would be helpful to other river activists, we welcome and encourage you to participate in DORIS. In addition, if you know of other river specialists you think might be interested in sharing their expertise through DORIS, please let us know who they are. We will contact them through the mail and request their participation.

Yes, I'd like to support the work of River Network.
Enclosed is my donation:

\$35 Supporter \$100 Contributor \$1000 Founder
Name: _____
Address: _____
City, State, Zip: _____
Telephone: _____

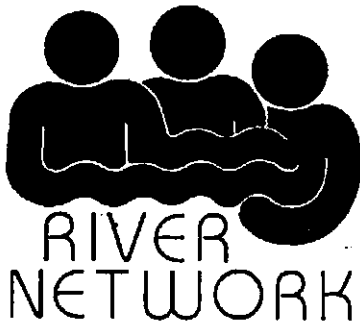
Yes, I know of a river guardian or group that may be
interested in becoming part of the national Network.
Please send information to:

Name: _____
Organization: _____
Address: _____
City, State, Zip: _____
Telephone: _____

River Network
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Portland, OR 97207

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