

WaterTalk Newsletter, November 1999

U.S. Environmental Protection Agency, Region 10

In This Issue:

Cleaner Waters Across America: Identifying Polluted Waters
Temperature Standard to Protect Salmon
Clean Water Action Plan Update:
- Internet Websites To Know
- Computer Atlas Teaches About Cook Inlet
Drinking Water: Know What's In It For You
Alaskan Traditional Knowledge Project: Combining Two Streams of Knowledge
Become a Groundwater Guardian
Idaho Water Update: New Newsletter!
Habla Espanol? Spanish Reading Room On Web
Environmental Ed Grants Due
Environmental Education Materials at Fingertips
Booklet Unlocks Wetland Secrets
Need Info on Sustainability?
Paper Explores Aquatic Habitat Indicators
EPA Directory For Sale
Guidebook Highlights Financial Tools
Community Based Environmental Protection. It's Not One-Size-Fits-All Anymore.
- Log On to CBEP
- CBEP At Work--Kenai River: Model Watershed Program
Beneficial Landscaping – Treatments for Traffic Areas Can Help Salmon
Calendar

EPA NEWS

Cleaner Waters Across America: Identifying Polluted Waters

EPA is taking steps to achieve **Cleaner Waters Across America**. The agency plans to do this by revising the TMDL -- or Total Maximum Daily Load -- program. The TMDL program is part of the Clean Water Act. Its primary mission is to protect public health and ensure healthy watersheds. The program identifies polluted waters, determines how much pollutants must be reduced to meet clean water goals, and makes sure that work happens on the ground to reduce the pollutants. You are invited to comment on the proposed regulatory changes.

Listing Polluted Waters

Every two years, states and some tribes identify waterbodies that don't meet clean water goals, called water quality standards. The lists of these waters, called 303(d) lists, are submitted to EPA

for approval.

The 1998 lists tell us:

- Over 20,000 waterbodies across America have been identified as polluted
- Many of these waters cannot be used for fishing, swimming, boating, or drinking
- Leading pollutants are sediments, pathogens, and nutrients
- Most Americans live within 10 miles of a polluted waterbody

Changing the Listing Process

EPA's proposed changes would revise the way the lists are developed and submitted. If adopted, the proposal would:

- give the public more information about the health of their watersheds
- ensure public participation and better clarity in developing lists and setting priorities
- promote consistency among states and tribes in developing schedules and priorities
- ensure that waters remain on the list until clean water goals are met
- require action plans for cleanup to be part of each TMDL

What is a TMDL?

A TMDL or Total Maximum Daily Load is a framework for cleaning up polluted waters. It is developed in two steps:

1. calculating the maximum amount of a pollutant that a waterbody can take in and still meet water quality standards; and
2. distributing that amount to the pollutant's sources.

Using this framework, restoration plans are tailored for each polluted waterbody. The ultimate goal is for the waterbodies to meet water quality standards. Once standards have been reached, the waterbody can come off the list.

Achieving Healthy Watersheds and Water Quality Standards

Once the stage is set for on-the-ground actions, there are many tools for cleaning up the waters:

- Wastewater discharge permits
- State nonpoint source management programs
- Other federal laws and requirements
- State and local laws and ordinances
- Local or regional watershed management programs

Comments on the proposed revision to the TMDL program are due January 20, 2000. A public meeting will be held in Seattle on November 10---time and location to be announced. Call Laurie Mann for meeting information at 206/553-1583 or 1-800-424-4372 x1583.

The proposed changes can be found in the August 23, 1999, Federal Register. Or, you can learn

more about them on EPA's TMDL website at www.epa.gov/owow/tmdl. Or, call Paula VanHaagen, EPA, at 206/553-6977 or 800-424-4EPA x6977, or email vanhaagen.paula@epa.gov.

Temperature Standard to Protect Salmon

Cold, clear water is critical to the recovery of threatened and endangered salmon, steelhead, bull trout and cutthroat trout (salmonids). These salmonids need cold water throughout their life. Key to ensuring rivers and streams are cold enough to support salmonids is a water quality standard for temperature. EPA is starting a two year long effort to develop water quality criteria for temperature to protect all the life history phases of salmonids. EPA will be joined in this effort by Oregon, Washington, Idaho, National Marine Fisheries Service and U.S. Fish and Wildlife Service.

Developing a temperature standard will be quite a challenge. Temperature is an inherent property of rivers and streams and it varies naturally. It varies with seasons and even over the course of 24 hours. It varies over the length of a river---its headwaters to its mouth as well within a segment of a river. Overlay to this complexity of temperature dynamics the complex biology of salmon.

As mentioned above, salmon have very specific requirements for their various life stages. Spawning and fry emergence, juvenile rearing, juvenile out migration, smoltification, adult migration and holding are all important and distinct life stages that have specific biological requirements. Capturing the natural dynamics of temperature and the complex life history requirements of salmon in a temperature standard will be challenging---but very important for furthering the region's efforts to protect and recover threatened and endangered salmon.

There will be opportunities for the public to participate in this project. We will be establishing various ways for the public to provide input and to track the progress of the project. In the next issue of WaterTalk we will share information on how to become engaged in our efforts. For more information, call Dru Keenan, EPA, at 206/553-1219 or 1-800-424-4372, or email keenan.dru@epa.gov.

WATERWORDS

Clean Water Action Plan Update

The Clean Water Action Plan is a national initiative to protect public health and restore our nation's waterways. The plan sets strong goals and provides states, communities, farmers, and landowners the tools and resources to meet them. It also emphasizes collaborative strategies built around watersheds and the communities they sustain. For more information, visit EPA's Clean Water Action Plan website at www.cleanwater.gov.

Internet Websites To Know

Here are a couple of good websites to bookmark if you are interested in following activities on the Clean Water Action Plan.

The first is Region 10's page found at www.epa.gov/r10earth/water. From this page click on Clean Water Action Plan. This page features:

What's happening and who's who in Region 10

Information on watershed restoration strategies

Watershed assistance grants

Information about a watershed video workshop

The draft policy on Watershed Management on Federal Lands

Links to related websites

EPA's national website at www.cleanwater.gov provides information on national activities. You can link up with other EPA regions and federal partners to see what they are doing on the Clean Water Action Plan.

www.epa.gov/win connects you directly with the Watershed Information Network. This site provides a comprehensive look at what is a watershed, how citizens can get involved in watershed protection, the laws protecting watersheds, grants and funding available, plus other good stuff.

Computer Atlas Teaches About Cook Inlet

As part of the Clean Water Action Plan initiative, EPA's Watershed Assistance Grant Program provided money to the River Network, a Portland-based conservation organization. Money to pay for distributing the atlas featured here came from a grant from River Network.

A new computer atlas is now available to folks interested in learning more about watershed-based management in Cook Inlet. Cook Inlet is a large estuary located in south central Alaska. It covers 47,000 square miles and is about the size of the state of Virginia. Its waters support wild salmon, whales, shorebirds, bears and moose. Native Alaskans have relied on the area's rich resources for thousands of years. More people live around Cook Inlet than around any other water body in Alaska. And more people are moving in every year!

The citizen-based non-profit organization called the Cook Inlet Keeper produced the **Cook Inlet GIS Atlas** to help local citizens, students, politicians, and others understand how earth, water, air, animals and people are connected in Cook Inlet. The atlas is on a CD-ROM with software to view maps, an annotated bibliography of scientific material, and an index to help you find things you are interested in. The CD-ROM is easy to use.

The Cook Inlet Keeper organization has given copies to schools and libraries around Cook Inlet. They have also taught teachers, librarians and students how to use the atlas. More information about the Cook Inlet GIS Atlas can be found on their webpage at <http://www.xyz.net/~keeper> or

by contacting the organization at 907/235-4068. Copies of the atlas can be purchased for \$50.00 or whatever you can afford.

**Drinking Water:
Know What's In It For You**

By now, you may have received a report in your mailbox that tells you all about your drinking water. To help make sure you have the information you need, EPA now requires many drinking water suppliers to prepare these **consumer confidence reports** every year. We encourage you to read this short mailer and learn about the water you and your family drink.

SPOTLIGHT

**Alaskan Traditional Knowledge Project:
Combining Two Streams of Knowledge**

Over the past year, EPA Region 10 has been partnering with many Tribes in Alaska. The goal has been to blend tribal Traditional Knowledge into more historically “western” ways of measuring environmental problems and conducting Arctic research.

The **Traditional Knowledge and Radionuclides Project** sprang from this effort. This project is addressing concern among Alaskan Tribes about their subsistence foods. Some fear they are no longer safe to eat because they may be polluted by radionuclides (a type of radiation) and other contaminants. Subsistence foods make up about one-third of the diet of Tribes in Alaska and provide their main source of protein. Wild harvest foods are also intimately linked to Native Alaskan spirituality and values. Because of these links, threats to these food sources greatly concern the Tribes.

A federal grant funded this project. Fran Stefan, EPA Project Officer for this grant, is working with Patricia Cochran at the Alaska Native Sciences Commission, and Jack Kruse at the University of Alaska. Together they will complete the *Contaminants in Native Foods* database, which attempts to create a bridge between Traditional Knowledge and Arctic science. This database can be used to sort and find information by geographic area, contaminant, animal species, and Tribes, among other categories.

On a larger scale, this project aims to build a common touchstone between the two streams of knowledge, and a respect for the differences between them. Specifically, its goal is to develop a research agenda focusing on the special context of tribal knowledge, which should be completed by fall 2000.

“At EPA, this information can potentially be used to create Tribally-driven models for risk. That means deepening our current definition of ‘risk’ to include the ‘perception of risk.’ This is critical to the Tribes,” says Fran Stefan. “For Native Alaskan communities, culture, spirituality,

and traditions are intimately linked with their subsistence harvests. We want the database to work for scientists and communities.”

Traditional Knowledge, as distinct from western science and technology, is not linear but relational. It is often passed on by word of mouth, from generation to generation. It is useful and important information. But it is not easily quantifiable as data, and its potential has not been fully tapped by western science. To gather Traditional Knowledge for this project, “talking circles” were held in many Native communities throughout Alaska. A “talking circle” is made up of tribal elders, scientists, and community leaders who discuss concerns within the larger context of cultural values.

A common misperception, at least to a “western” way of thinking, about talking circles is that they are “touchy-feely,” or somewhat lacking in seriousness. Actually, they require careful preparation and follow prescribed rules. No cellular phones or other such potential disturbances are allowed. Participants are required to keep stories shared within the circle confidential, in order to establish an atmosphere of trust.

In these circles, Tribal members shared observations about the world that shapes their daily experience. They talked about animals, habitat, the land, and ocean. This included such information as white shark (a warm water species) swimming in Arctic waters, seals losing their fur when it was not molting season, and the need to go farther afield than in the past to find the right plants for basket weaving. Tribal members also shared stories of polluted waters and catching sick fish. Researchers are still working on distinguishing natural trends from abnormal ones. Two of the trends they are looking at closely are climate change and certain animal species decreasing or increasing.

This project is one example of the need to address global environmental issues at a community level as we move into the new millennium. Recognizing that Traditional Knowledge is a valid way of looking at the environment, and integrating it into decision making, is important at regional, local, and national levels.

You can take a look at the database at: <http://shiva.iser.uaa.alaska.edu/knowledge/db/>

If you would like more information about this project, call Fran Stefan at 206/553-6639 or 1-800-424-4372, or email stefan.fran@epa.gov. Also, you can email Patricia Cochran at anpac1@uaa.alaska.edu and Jack Kruse at afjak@uaa.alaksa.edu.

Become a Groundwater Guardian

*adapted with permission from **The Aquifer***

Is your community concerned about groundwater? If so, become part of the growing network of **Groundwater Guardian Communities**. Groundwater Guardian is an international program of The Groundwater Foundation. It is designed to support and recognize citizen involvement in local groundwater protection projects. Community applications are accepted year-round.

Each Groundwater Guardian community forms a team to actively participate in planning and carrying out groundwater protection projects. Team members often represent business, agriculture, local government, education, and citizen groups. The team adopts activities ranging from education and awareness programs to wellhead protection and local land-use ordinances. Substantive progress toward activity goals results in Groundwater Guardian designation for the community.

The Groundwater Foundation, with some funding from EPA, serves as catalyst and organizer for Groundwater Guardian. It offers a variety of benefits to entering communities, including:

- a copy of the Foundation's groundwater Public Service Announcement
- the Groundwater Guardian Assistance Kit, which includes a variety of resources and teaching materials
- complimentary subscription to *The Aquifer* quarterly journal
- a plaque and road sign awarded during an annual ceremony, and
- use of the Groundwater Guardian name and logo.

For more information, call the Foundation at 1-800-858-4844 or email guardian@groundwater.org. Also, visit www.groundwater.org.

TOOLS

Idaho Water Update: New Newsletter!

Idaho Water Update is a new electronic newsletter about water quality and quantity in Idaho. The newsletter will be published six times a year on the web. Each issue will contain six to ten articles and a list of new publications about water. The premier issue offers articles like "Nutrient Management Makes Good Sense," "State Agricultural Water Quality Survey Results," "TMDL Action Plan for Agriculture," "Improving Irrigation Management," and many others. You can find Idaho Water Update at www.uidaho.edu/wq/IWnewsletter. The newsletter can be read and printed using ADOBE ACROBAT READER. You can get the reader at no charge from www.adobe.com. Idaho Water Update is sponsored by seven Idaho state agencies. If you have questions or ideas, contact Robert L. Mahler, Editor, at bmahler@uidaho.edu.

Habla Espanol?

Spanish Reading Room On Web

Visit www.epa.gov/espanol to check out EPA's **Spanish Reading Room**. Designed for Spanish-speaking people, the web site is divided into technical and non-technical areas. Water, air, solid waste, pollution prevention, pesticides, and other environmental topics are covered. The site also links to other sites with Spanish materials.

Environmental Ed Grants Due

November 22 is the date **Environmental Education Grant** proposals are due. State and local government education or environmental agencies and tribal education agencies or not-for-profit organizations may apply. This annual EPA program supports projects that increase the public's knowledge about the environment and provide skills to make informed decisions.

Many resources are available to help you with your application. First, EPA offers a new booklet called "Environmental Education Grant Program: Tips for Developing Successful Grant Applications." Second, "1997 (and 1998) Environmental Education Grant Profiles" are two booklets with information on all the projects funded by EPA in 1997 and 1998. Third, there is a tutorial for preparing grant applications at the following Internet address: www.epa.gov/seahome/grants/src/grant.htm. And, finally, a document from 1993 called "Grant Funding for Your Environmental Education Program: Strategies and Options" might be helpful to you.

For application materials or resource documents, or to find out more, contact Sally Hanft, EPA, at 206/553-1207 or 1-800-424-4372 x1207, or email hanft.sally@epa.gov.

Environmental Education Materials at Fingertips

The **Northwest Environmental Education Clearinghouse** is now available on EPA Region 10's web site: <http://www.epa.gov/r10earth/> under Education.

The Clearinghouse lists hundreds of resources available from government agencies as well as non-profit groups. Looking for videos, posters, workshops or curriculum? Simply check off the type of resource you are seeking, along with an environmental topic, and you will find a wealth of options to choose from. One phone call to the distributor of that resource and you are ready to instruct kindergartners or high school students.

This free service is available in Alaska, Idaho, Oregon and Washington. For more information, call Jeff Philip, EPA, at 206/553-1465 or 1-800-424-4372, or email philip.jeff@epa.gov.

Booklet Unlocks Wetland Secrets

Unlocking the Secrets of America's Wetlands is a new booklet which does just what its title says. This 42-page handbook tells about the secrets and treasures of our nation's wetlands. In a fun and easy-to-understand way, it tells what wetlands are, why they are valuable, why they need protection, and how they connect to our everyday lives. It also gives lots of truly meaningful ways individuals can help preserve wetlands. As a bonus, a colorful poster (great for the classroom) is tucked into the back flap. Finally, it lists resources and contacts and provides a glossary of terms. The booklet was made by EPA and the Terrene Institute. For a free copy, call EPA Region 10's Public Environmental Resource Center at 206/553-1200 or 1-800-424-4EPA.

Did you know? Alaska has 170 million acres of wetlands. That's more than all the other 49

states combined.

Need Info on Sustainability?

EPA Region 10's Office for Innovation has produced a new CD-ROM, **Sustainability: Holistic Perspectives for the Next Century**. This interactive CD-ROM is part of a larger educational project on sustainability. It is free to the public as long as supplies last.

The CD-ROM contains information on sustainability, urban sprawl, Smart Growth, and a segment on sustainability activities in the Northwest and Alaska. It includes a checklist to help you evaluate your projects, a segment on global climate change, practical ideas for action, and a "Towards Sustainable Business" section with leadership examples from local businesses. Also featured are an animated show, a quiz, and other colorful, interactive items. To request a copy, send an email with your name and address to Lither.Barbara@epa.gov (206) 553-1191, or Dalrymple.Anne@epa.gov (206) 553-0199.

Paper Explores Aquatic Habitat Indicators

A new technical paper called **Aquatic Habitat Indicators and their Application to Water Quality Objectives with the Clean Water Act** is now available from EPA. This 99-page document looks at ways habitat considerations can be incorporated into traditional water quality programs. The paper focuses on freshwater habitats in the Northwest and Alaska, with a special emphasis on salmon habitat. It was developed by EPA Region 10 and Idaho Water Resources Research Institute. For a free copy, call EPA Region 10's Public Environmental Resource Center at 206/553-1200 or 1-800-424-4372. Additionally, the full report and a lengthy bibliography associated with habitat indicators are available on the EPA Region 10 website at www.epa.gov/r10earth/. Look under Aquatic Habitat Indicators in the index, or under Water Quality in the Office of Water homepage.

EPA Directory For Sale

The **Customer Service Edition of EPA's Headquarters Telephone Directory** is now commercially available for \$39. The 472-page directory includes a listing of Headquarters personnel (based in Washington DC), a key agency contact listing, Headquarters organization information and index, hotlines, regional offices and laboratories, environmental topics index, quick reference information, and web addresses for EPA programs and offices.

To order on the web, visit www.epa.gov/customerservice/phonebook/. Or call the Government Printing Office at 202/512-1800. You can also mail your request and a check payable to Superintendent of Documents to: Superintendent of Documents, PO Box 371954, Pittsburgh, PA 15250-7954. Reference stock number 055-000-00626-1. Allow a few weeks for delivery.

Guidebook Highlights Financial Tools

Searching for ways to pay for environmental programs? A tool now on the Internet can be a big help. EPA's **Guidebook of Financial Tools**, available only on the web, covers more than 300 financial tools that governments and the private sector can tap into, to support environmental activities and systems. Visit <http://www.epa.gov/efinpage/guidbk98/index.htm>.

ECOSYSTEM

WaterTalk is pleased to announce a new feature: CBEP! Yes, another acronym. Each issue, we will share the latest on Community Based Environmental Protection. This issue, we introduce this place-based way of protecting the environment. We also invite you to visit the web site and give us your feedback. And, we spotlight a success story to demonstrate what it's all about.

Community Based Environmental Protection. It's Not One-Size-Fits-All Anymore.

Community Based Environmental Protection is not just another acronym (CBEP). It's a better way of protecting the environment, one place at a time. It's about tailoring environmental programs to a particular watershed, ecosystem, or other place, rather than taking a one-size-fits-all approach. It maximizes use of scarce resources, encourages local support, and considers the economic health of communities. Community Based Environmental Protection is just what it says---it's about protecting the environment in a way that works best for the particular community. From the ground up.

The Problems Aren't Just At the End of a Pipe. Over the past quarter century, EPA has made great progress using nation-wide standards to protect the environment. However, even if there were perfect compliance with environmental laws, we would still see many disturbing environmental trends. One reason is that many problems come from dispersed sources of pollution, like automobiles and runoff from cities, suburbs, and agriculture. These problems are harder to control with traditional "end of the pipe" regulation than are large, industrial sources of pollution. Another reason is that we recognize the need to treat all the resources in a place---air, water, land, and living resources---as inter-connected parts of a system. And finally, not all parts of the country have the same problems or need the same kinds of solutions. To continue progress, then, we must lay the foundation for a new generation of environmental protection.

What's It all About? Community Based Environmental Protection has a **geographic focus**, and tailors itself to local goals and conditions. A **focus on environmental results** is made easier by geographic boundaries. Our goal is to measure environmental improvement. In many cases this means looking beyond facility-by-facility progress and identifying overall environmental trends. Because things happen at the community level, **partnerships and stakeholder involvement** are especially critical to CBEP. Better relationships can mean a better understanding of environmental problems and more effective solutions. Partners may include representatives from governments, public interest groups, industry, academia, landowners, concerned citizens, and

others. EPA's role varies depending on the needs of the place.

To learn more about Community Based Environmental Protection, contact Anna Maria Munoz, EPA, 206/553-0266 or 1-800-424-4372 x0266, or email munoz.anna-maria@epa.gov.

Log On to CBEP

EPA Region 10 invites you to visit the **web site** dedicated to Community Based Environmental Protection in the Northwest. Although it is under construction, you still may find many useful resources related to CBEP. It covers activities happening throughout the region and the nation, funding resources, tools, helpful links, and many other items. Look for it at www.epa.gov/r10earth. Go to the index at the bottom, and click on "c" for Community Based Environmental Protection. And, please, let us know what you think. What do you find useful? What is missing? Is it well organized? To share your comments, or ask questions, contact Anna Maria Munoz at 206/553-0266 or 1-800-424-4372 x0266, or email munoz.anna-maria@epa.gov.

CBEP At Work

Kenai River: Model Watershed Program

Kenai River is one of Alaska's most popular and well-known watersheds. This area contains a vast amount of wildlife and biological diversity---salmon, trumpeter swans, beluga whales, moose, and on and on. However, rapidly growing human populations and recreational use now threaten the environmental health of the Kenai River Watershed. Community Based Environmental Protection is at work in the watershed, with impressive progress.

An effort to conserve the natural resources found in the Kenai Watershed is underway. The Nature Conservancy, with support from EPA and Alaska Department of Fish and Game, is developing conservation plans, programs, and partnerships. At the heart of their work is the belief that watershed protection will succeed only if local community values frame the effort.

EPA has supported this approach by providing technical and funding assistance to the Kenai Watershed Conservation Program. EPA also has placed a full-time staff person in Kenai to further the program's progress and to demonstrate EPA's commitment to advancing this community-level approach.

Much of the work involves listening to residents to find out how they feel about local watershed issues. This listening has happened through informal gatherings, attendance at local meetings, and facilitated visioning sessions. The Conservancy also has formed close working relationships with partner organizations that include EPA, Resource Conservation and Development Districts, Kenai River Center, and Kenai Peninsula Borough. The work has been long and hard, but results have been phenomenal!

Since the early 1990's, the Conservancy has made great strides in watershed protection. Bringing

diverse people together around issues of common concern, expanding public involvement and education, developing watershed analysis tools, strategic planning, and watershed mapping and monitoring are just some examples of progress. Overall, the work has highlighted the connections between environment, economy, and community. And although there is still work to be done, the Kenai River is often used as the best Alaskan example of an effective watershed approach and a model of community sustainability. It's an approach that others have noticed and are seeking to emulate.

More about the Kenai Watershed can be found on Region 10's homepage at www.epa.gov/r10earth. Go to index, click on "c" for Community Based.

Beneficial Landscaping – Treatments for Traffic Areas Can Help Salmon

Believe it or not, walkways, driveways, and parking areas (even roof tops!) can be "beneficially landscaped" too. These high traffic areas---usually covered by compacted gravel, concrete, or other hard surfaces---can be designed to improve permeability, to allow water to get through. Increasing permeability in our watersheds is important for controlling water runoff. Research has shown that once a watershed is covered by 5 to 10% impervious surface, the quality of aquatic habitats declines and their inhabitants, such as our threatened salmon, suffer. Nearly all traditional development designs (TDD) will exceed the 5 to 10% threshold. So what can we do differently to save the salmon?

The Spring issue of WaterTalk shared news of the May "Soils for Salmon" Seminar. We discussed the benefits of using compost so that soils can better soak up the rain, and to improve plant growth and aesthetics. Another approach for controlling surface water runoff covered at the seminar (which enjoyed a sell out repeat performance in Tacoma October 6), was to apply innovative development designs (IDD) or better yet, zero impact designs (ZID).

IDD refers to site planning techniques that provide for open space, narrower streets, greener and smaller parking lots, stream buffers and other measures to control stormwater and conserve natural areas. ZID goes beyond IDD to sharply reduce the "effective impervious area" of new development. ZID practices include eco-roofs, roof gardens, rain barrels, alternative paving surfaces, soil amendments, bioretention, reforestation, and filter-swale systems. ZID is not widely applied in the Pacific Northwest, but is used extensively in Europe. Greater emphasis upon ZID is important, though, because IDD techniques alone may not be enough to maintain watershed functions to protect salmon habitat in most future growth areas (1).

We thought you might like to know about examples of a few of these techniques. Perhaps you will consider applying them in new developments, or possibly in retrofitting existing ones. There are a few beneficial landscaping demonstration gardens in the Puget Sound area (sponsored by Washington Department of Fish and Wildlife) that include alternative paving surfaces. Of course the gardens feature many other plantings and structures as well that benefit wildlife and the environment:

Carkeek Park Environmental Education Center
950 NW Carkeek Park Road, Seattle
Contact: (206) 684-0877

Lake Hills Greenbelt Ranger Station, Bellevue Parks and Recreation
15416 SE 16th, Bellevue (next to Phantom Lake)
Contact: Ranger Station (425) 452-7225

Auburn City Park Wildlife and Water Conservation Gardens
405 E Street NE, Auburn
Contact: B. Sanders (253) 804-5031

Also, see a permeable spillover parking lot in the northwest corner of PCC-Kirkland's parking area at 10718 NE 68th, Kirkland.
Contact: (425) 828-4621

For more information, contact Elaine Somers, Beneficial Landscaping, EPA, at 206/553-2966, or somers.elaine@epa.gov. Let us know what you think!

(1) Tom Holz, T. Liptan, and T. Schueler. Beyond Innovative Development: Site Design Techniques to Minimize Impacts to Salmon Habitat. In Salmon in the City Conference proceedings, 1998, American Public Works Association.

CALENDAR

November

9-10: Emergency Planning for Water and Wastewater Utilities, Auburn, Washington. Washington Environmental Training Center, 1-800-562-0858 or 253/833-9111 x3369.

10: Public Meeting, Revisions to National TMDL Program, Seattle, Washington. Laurie Mann, EPA, 206/553-1583 or 1-800-424-4372 x1583.

16-19: Association of Oregon Counties Annual Conference, Seaside, Oregon. 503/585-8351.

18-19: Wetlands In Washington, 1999, Seattle, Washington. Law Seminars International, 206/621-1938 or 800-854-8009, registrar@lawseminars.com

December

5-9: Watershed Management to Protect Declining Species, American Water Resources Association Annual Conference, Seattle, Washington. Rodney Sakrison, 425/649-4447, www.awra.org.

16: 25th Anniversary of the Safe Drinking Water Act

16-17: Government Takings, Seattle, Washington. Law Seminars International, 206/621-1938 or 800-854-8009.

January

14: Deadline for contributions to the February issue of WaterTalk.

February

1-3: Northwest Transportation Conference, Oregon State University. Transportation Research Institute, 541/737-4273.

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WaterTalk is published each February, May, August, and November by the U.S. Environmental Protection Agency, Region 10. WaterTalk seeks to be a useful tool for those who protect water resources and ecosystems in communities of the Greater Pacific Northwest, by providing practical resources and relevant agency news.

You are invited to contribute items for publication. Submittal deadline is the 15th day of the month before publication. WaterTalk articles can be used in other publications. Please give credit to WaterTalk.

For mailing changes, call Tomi Rutherford at 206/553-0603. To contact the editor, call Andrea Lindsay at 206/553-1896 or 1-800-424-4EPA x1896, or email lindsay.andrea@epa.gov.

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