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Agency

Office of Water
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1997

WATER QUALITY CRITERIA AND STANDARDS

NEWSLETTER

WATER QUALITY CRITERIA STEERING COMMITTEE and TECHNICAL REVIEW COMMITTEES

Water quality criteria provide the scientific underpinning for the water quality program. They define the chemical, physical, and biological aspects of water quality needed to protect the designated uses of the water that States and Tribes adopt in their water quality standards. As the water quality program has progressed over the years, EPA's development of water quality criteria has become an increasingly sophisticated and complex process. By the time EPA publishes criteria under section 304(a) of the Clean Water Act, they have gone through a careful development process involving many offices in EPA. Many steps are also involved when a State or EPA authority uses criteria to develop effluent limits for dischargers, or total maximum daily loads for waterbodies. To ensure that all of these processes go well within EPA, we have recently established a Water Quality Criteria Steering Committee and two Technical Review Committees. We would like our readers to know about these efforts, even though their work will be mostly behind the scenes, since we believe they will help us improve our ability to serve the "customers" for criteria--States, Tribes, and the public.

The Water Quality Criteria Steering Committee is being established to identify and address emerging water quality criteria issues within EPA in a timely fashion and facilitate communication on these issues between Regional and Headquarters Offices. The Steering Committee is composed of managers from the EPA Regional Offices, the Office of Water (OW), the Office of Research and Development (ORD) and the Office of General Counsel. The Steering Committee will work in conjunction with two Technical Review Committees (human health and aquatic life) which will draw from the scientific water quality expertise residing in various EPA offices. The Technical Review Committees will evaluate scientific issues related to the development, implementation and interpretation of water quality criteria.

The membership of the committees is limited to EPA staff since the purpose is to enhance the internal management and implementation of the Agency's water quality criteria program. The mechanisms already in place to work with EPA's partners in the water quality program, including the States, municipalities, industries and public and private interest groups, will continue to be used to ensure that communications outside the Agency are timely and effective.

Objectives

The primary objectives of the Steering Committee include the following:

- Identify the process for addressing water quality issues in a structured and timely fashion;
- Support the establishment and maintenance of a database for criteria development and revision;
- Identify the long-term needs or activities of the water quality criteria program including the appropriate office(s) to take responsibility.
- Establish a Communications Protocol which facilitates efficient and productive communication between OW, ORD and the Regional Offices;

The objectives of the Technical Review Committees include the following:

- Work with staff on the development of or revision to water quality criteria documents for proposal and final publication;
- Evaluate and make scientific and technical recommendations on ad hoc issues brought to the Steering Committee;
- Critically review toxicity data to make recommendations or revisions to the criteria database;
- Provide technical input and expertise to State, local and EPA staff on interpretation and use of water quality criteria.

Current Status

Since the Steering Committee was initiated in February 1997, four meetings have been held via teleconferencing. The initial meetings of the Steering Committee have been used to agree on operational procedures and review the status of the various criteria program activities. The existing Aquatic Life Guidelines Committee will serve as the technical review committee for ecological criteria issues. Actions have been initiated to staff the technical review committee for human health criteria. The Committees' next priorities include completion of the communications protocol and establishment of a user-friendly database which will be an up-to-date source of information on the current water quality criteria and their supporting data.

Alan Hais and Fred Leutner, Office of Science and Technology (OST) will initially chair and co-chair the Steering Committee, respectively. Other members of the Steering Committee include: Sally Marquis and Bob Robichaud (Region 10); Joan Karnauskas (Region 5); Cheryl Overstreet (Region 6); Margarete Heber (Office of Wastewater Management); Don Brady (Office of Wetlands, Oceans and Watersheds); Steve Hedtke and Lynn Papa (Office of Research and

Development); and Lee Schroer (Office of General Counsel). The Aquatic Life Guidelines Committee currently includes Charles Stephan, Russ Erickson and Glen Thursby (ORD) and Charles Delos (OST); additional members may be added. Please contact Heidi Bell, the OST Steering Committee Coordinator, at (202) 260-5464 or bell.heidi@epamail.epa.gov for more information.



**ELIZABETH SOUTHERLAND
ACTING DIRECTOR, STANDARDS
& APPLIED SCIENCE DIVISION**



**JEANETTE WILTSE
DIRECTOR, HEALTH &
ECOLOGICAL CRITERIA DIVISION**

UPCOMING EVENTS

WATER QUALITY STANDARDS ACADEMY

One session of the "Water Quality Standards Academy" will be held this fiscal year. The "Water Quality Standards Academy" is a highly structured training course on all aspects of the water quality standards and criteria program. The course is designed for those with fewer than six months experience with the water quality standards and criteria program. Others may benefit from the course, including veterans of the water quality standards and criteria program who want a refresher course. The course will be held July 28-August 1, 1997 in Washington, DC. There is no cost to attend this training course. Registration is required. EPA will send written confirmation of acceptance into the course. Contact: Kate Belmont, The Cadmus Group, Inc., at (703) 931-8701 for registration information.

MEETING ANNOUNCEMENT - MULTI-REGIONAL MEETING ON WATER QUALITY STANDARDS, WATER QUALITY CRITERIA AND WATER QUALITY-BASED PERMITTING

The EPA Office of Water and Region 7 will co-host a meeting August 25-28, 1997 in St. Louis, Missouri. The objective of the meeting is to provide an exchange of scientific, technical and policy information on water quality standards, water quality criteria and water quality-based permitting. This meeting is an expansion of the multi-regional meetings on water quality standards and criteria that were held in past years.

The four-day meeting is open to anyone interested in these topics, including representatives from States, Indian Tribes, Federal agencies, environmental groups, industrial groups, municipalities, the academic community, EPA and others. The meeting theme is "Development and Implementation of Tools for Water Quality-based Pollution Control." There is no charge to attend this meeting. You must, however, pre-register. Contact Liz Heitt, Tetra Tech Inc., (703) 385-6000 for registration and other pertinent information.

BASINS WATER QUALITY MODELING WORKSHOPS

The Office of Water is sponsoring a series of "BASINS Water Quality Modeling Workshops" to be held through December 1997. These workshops are for you, if you are involved in developing, reviewing or approving total maximum daily loads (TMDLs) for controlling point and nonpoint sources using the watershed approach. The number of attendees for each workshop will be limited to 30. To learn more about the uses of BASINS, to obtain an announcement, or to assure your place in the BASINS workshop, call the Regional point-of-contact indicated below as soon as possible. There is no registration fee associated with the workshops.

BASINS, which stands for Better Assessment Science Integrating Point and Nonpoint Sources, is a new geographic information system application developed by EPA to help States and tribes evaluate existing data sources to identify waterbodies that may not be achieving water quality standards. BASINS is being used increasingly in developing total maximum daily loads (TMDLs) required by the Clean Water Act. The heart of BASINS is its suite of interrelated components

that are grouped into three categories: (1) national database Data Extraction tool and dynamic Project Builder tool; (2) assessment tools (TARGET, ASSESS and Data Mining) that address needs ranging from large-scale to small-scale; and (3) watershed and water quality models including NPSM (HSPF (version 10)), TOXIRoute, and QUAL2E (version 3.2). BASINS' databases and assessment tools are directly integrated within an ArcView 2.1 geographic system environment.

The Regional point-of-contact will send course announcements to the intended audience 6-8 weeks ahead of the scheduled workshop date. The BASINS course schedules, and names and telephone numbers of the Regional points-of-contact are as follows:

Region	Schedule	Point of Contact	Telephone #
I	Nov 3-7.	Mark Voorhees	(617) 565-4436
II	July 28-Aug 1	Steve Wood	(212) 637-3866
III	June 9-13	Tom Henry	(215) 566-5752
IV	April 14-18	Tom McGill	(404) 562-9243
V	Oct 6-10	Margaret Thielke	(312) 886-6683
VI	June 23-27	Brad Jennings	(214) 665-7255
VII	May 12-16	Jerry Pitt	(913) 551-7766
VIII	Sep 15-19	Tony Ott	(303) 312-6909
IX	August 19-22	David Smith	(415) 744-2012
X	July 14-18	James Curry	(206) 553-6912

WATER QUALITY STANDARDS BRANCH/SASD
FRED LEUTNER
(202) 260-1542

INTERIM ECONOMIC GUIDANCE FOR WATER QUALITY STANDARDS: WORKBOOK

The *Interim Economic Guidance for Water Quality Standards: Workbook* (hereinafter referred to as "Workbook") is available on the world wide web at <http://www.epa.gov/OST/econ>. This document was published in March 1995 (EPA-823-B-002). It is the Agency's first product for describing economic methods that could be used in the water quality standards program. The "Workbook" is designed to assist States and Indian Tribes in understanding the economic factors that may be considered and the types of tests that can be used to determine: 1) if a designated use cannot be attained, 2) if a variance to an individual discharger can be granted or 3) if degradation of high quality water is warranted. This document provides a framework for making these determinations. The measures and tests suggested in this guidance are standard economic analytical tools. The "Workbook" provides methods for considering the economics for public and private entities and for communities. Contact: George Denning (202) 260-7374, e-mail address Denning.George@epamail.epa.gov.

FEDERAL WATER QUALITY STANDARDS FOR PENNSYLVANIA

On August 29, 1996, EPA published for public comment, proposed Federal water quality standards for the Commonwealth of Pennsylvania (61 FR 45379-45385) to comply with a court order in *Raymond Proffitt Foundation v. Browner*. The proposed standards were to address aspects of Pennsylvania's antidegradation policy that were disapproved by EPA in 1994.

The public comment period for this proposed rule closed on October 16, 1996. After reviewing the comments received, EPA published the final rule on December 9, 1996 (61 FR 64816-61822). The final federal water quality standards establish a three-tiered antidegradation policy consistent with federal minimum requirements (contained in 40CFR Part 131.12) for the Commonwealth of Pennsylvania.

If the Commonwealth adopts revisions to its antidegradation policy that are consistent with the Federal requirements, EPA will withdraw this Federal rule. For additional information, contact Bob Shippen at (202) 260-1329 or at Shippen.Robert@epamail.epa.gov.

PROPOSED WATER QUALITY STANDARDS FOR IDAHO

On February 20, 1997, as a result of a lawsuit filed by the Idaho Conservation League and Idaho Sporting Congress, the United States District Court for the District Court of Washington ruled that EPA had failed to carry out its mandatory duty to promulgate federal water quality standards to address those portions of Idaho's standards disapproved on June 25, 1996. The District Court ordered EPA to propose replacement standards by April 21, 1997, and to promulgate final standards 90 days thereafter (July 21, 1997).

On Monday, April 21, 1997, Carol Browner, Administrator of EPA, signed proposed water quality standards for Idaho (62 FR 23003; April 28, 1997). EPA's proposed rule contains 1) a default use designation of fishable/swimmable for unclassified waters, 2) fishable/swimmable uses for 53 specific stream segments, 3) species-specific temperature criteria for threatened and endangered species (i.e., bulltrout, sturgeon, and snails), 4) an antidegradation policy for outstanding national resource waters (ONRWs), 5) narrative criteria for water quality within a mixing zone, and 6) clarification that waters of the U.S. are subject to water quality standards. Due to the scope of the court order, and the time frames specified in the court order, EPA did not collect information on the attainability, or lack thereof, of "fishable/swimmable" uses for the waters listed in the June 1996 disapproval letter. Therefore, EPA had to propose beneficial uses based on the goal uses of the Clean Water Act for those waters.

In addition to a 30 day comment period, EPA held two public hearings in Boise, Idaho, on May 12. Idaho has already submitted revisions to its antidegradation policy for ONRWs, and restored fishable/swimmable uses for 2 of the 53 streams. EPA is currently reviewing the State revisions and will approve or disapprove the revised standards. In addition, Idaho has been utilizing emergency rule procedures to address many of the other issues for which EPA proposed replacement standards. During the comment period, EPA sought data and information from the public on the appropriateness of the proposed designated beneficial uses and will revise them as needed. Additionally, EPA continues to work with Idaho to resolve remaining issues. For more

information and to view the complete text of the Federal Register notice see EPA's web site at "<http://www.epa.gov/OST/Rules/>", or call Lisa Macchio of U.S. EPA Region 10 at (206) 553-1834.

WATER QUALITY STANDARDS REGULATION: ADVANCE NOTICE OF PROPOSED RULEMAKING

In May 1996, the Office of Water sent the interim draft Advance Notice of Proposed Rulemaking (ANPRM) on the water quality standards regulation to each State and Territory, over 100 Indian Tribes, environmental advocates, industry and municipal representatives and interested parties. Comments on the scope of the document and the characterization of the issues were received from 73 respondents. Many commenters suggested that EPA narrow the scope of issues to be addressed in the ANPRM and sharpen and focus the revised ANPRM on those issues for which a regulatory change would be possible or desirable. EPA officials are meeting with stakeholder groups concerning their comments. EPA will revise the draft ANPRM to respond to public comments and to narrow the scope of issues to be included in the ANPRM. In narrowing the scope of the ANPRM, EPA intends to focus on the issues identified by stakeholders as high priority for improving the national water quality and the standards program. Federal Register publication of the ANPRM is expected during Summer 1997. Contact: Rob Wood (202) 260-9536 or Wood.Robert@epamail.epa.gov.

PROPOSED RULEMAKING TO WITHDRAW THE APPLICABILITY OF FEDERAL ARSENIC CRITERIA IN ALASKA

On May 21, 1997, EPA proposed to withdraw the applicability of the Federal human health criteria for arsenic in Alaska that were promulgated by EPA in the National Toxics Rule (NTR).

In the NTR (57 FR 60848, December 22, 1992), EPA promulgated Federal regulations establishing water quality criteria for priority toxic pollutants in several States, including Alaska (codified at 40 CFR 131.36). In that Federal action, EPA promulgated aquatic life and human health criteria in the State, including human health criteria for arsenic. However, the State has the arsenic maximum contaminant level (MCL) in place along with aquatic life criteria for arsenic which appears to meet the requirements of the Clean Water Act.

If finalized, this rulemaking would make the State's own criteria applicable for all purposes under the Clean Water Act, including limits in National Pollutant Discharge Elimination System (NPDES) permits. EPA will also solicit comments on whether there are any locations in Alaska where the arsenic criteria in the NTR should not be removed. For additional information, contact Kent Ballentine at 260-1323 or ballentine.kent@epamail.epa.gov.

EXPOSURE ASSESSMENT BRANCH/SASD
RUSS KINERSON
(202) 260-1330

NEW TMDL GUIDANCE MANUAL NOW AVAILABLE

A new document titled *Book II. Streams and Rivers. Part I: Biochemical Oxygen Demand/Dissolved Oxygen and Nutrients/Eutrophication* is now available. This guidance document assists water quality analysts to assess impacts of point and nonpoint source discharges on water quality of rivers and streams in terms of biochemical oxygen demand and eutrophication. The manual includes many examples of uses and limitations of fate and transport models in assessing the impacts of nutrients and organic wastes on water quality of rivers and streams. Also the manual includes a diskette which contains model inputs necessary to illustrate site-specific model applications.

This document combines chapters one and two of the *1983 Technical Guidance Manual for Performing Waste Load Allocations, Book II* into a single document. It eliminates duplicative information on hydrodynamics, nutrient and dissolved oxygen interactions, and physical characteristics of streams and rivers. Also, this document includes updated information on modeling, reaction rate coefficients, field measurement techniques, etc. In addition, it includes several new examples using EPA-supported water quality models such as QUAL2E and WASP5.

To order a copy of this document, please write to: USEPA, National Center for Environmental Publications and Information, 11029 Kenwood Road, Cincinnati, Ohio 45242; fax (513) 489-8695. The document number is EPA-823-B-95-007.

INFORMATION ON BASINS NOW ON EPA'S WEB SITE

We now have two pages on EPA's web server that provide information on BASINS (see article above). The first page is a fact sheet on BASINS. The fact sheet gives an overview of all the BASINS components and describes how they tie together. The analytical tools built into BASINS are described, as are the environmental data and map coverages. A section on predictive modeling describes the nonpoint and water quality models used in BASINS. There is also information on the hardware/software requirements to run BASINS, and a list of contacts for further information and ordering a copy.

The second BASINS page contains answers to FAQ (Frequently Asked Questions) - a net abbreviation for questions on a topic that come up repeatedly. In this page we condensed the most common questions from users who were setting up or using BASINS. In addition to answering questions, the FAQ also provides a location to announce updates to the system and bug fixes, and provide easy links to new information that has come out since BASINS was released, such as the new on-line version of QUAL2E documentation.

Both BASINS web pages can be found by looking under "What's New" in EPA's home page, under "Tools" on the OST Home page, or by entering the following URLs:

Fact sheet

<http://www.epa.gov/ostwater/BASINS/basinsv1/basinsv1.html>

Frequently Asked Questions

<http://www.epa.gov/ostwater/BASINS/FAQ/basinsfq.html>

RISK ASSESSMENT AND MANAGEMENT BRANCH/SASD

TOM ARMITAGE

(202) 260-5388

EPA BEACH HEALTH PROTECTION PROGRAM

EPA has established a national bathing beach health protection program. The Agency formally announced the Beaches Environmental Assessment, Closure, and Health (BEACH) Program on May 23, 1997.

EPA's BEACH Program was established to improve the health of beach goers through assistance to state, tribal, and local health and environmental officials in designing, developing and implementing beach monitoring and advisory programs. Strong water quality standards, improved scientific methods, and providing information to the public are the key elements of the BEACH Program. During the next several years, the program will focus on:

- improving the scientific and policy foundations in support of local, State, and tribal action. EPA encouraged responsible parties to adopt updated bacteriological ambient water quality criteria. We also intend to invite representatives to a national beach health conference later this year;
- providing improved test methods and indicators to better protect the health of beach goers in a more timely and comprehensive manner;
- developing better predictive models to help notify the public of potential risks; and
- enhancing the public's right-to-know about the safety of their local beaches by establishing and disseminating a national beach contamination data base.

As part of EPA's commitment to ensure the public right-to-know, we created an Internet website and written materials. These materials and the website make it easier for everyone to find out about local beach water quality conditions, beach advisories, closures, and other pertinent information.

EPA's new website on the Internet, called "**Beach Watch**," is an on-line directory of information about the water quality at our nation's beaches, local protection programs, and other beach-related programs. The "**Beach Watch**" website is located on the Internet at <http://www.epa.gov/OST/beaches>. EPA is working with environmental and health officials from state, tribal, county, and city government agencies, other federal agencies and the public to collect and update information on beach closings, their monitoring and advisory programs and other

relevant information. This information is posted on "**Beach Watch**." Beach closings and local contacts are listed by state where available. We are working to provide national coverage of local beach information and will make this and other information available through "Beach Watch" and other sources. "**Beach Watch**" will be updated as new information becomes available.

Government agencies, tourism boards, environmental groups and others are encouraged to contact EPA about contributing health related studies, reports, and appropriate questions and answers.

Summary information about specific aspects of the BEACH program will be included in future issues of this Newsletter.

Beach Health Information Request

I am interested in receiving information about the U.S. Environmental Protection Agency's beach health program that is being developed. Please add my name to the information request database.

Name: _____

Title: _____

Organization: _____

Street Address (or PO Box): _____

City: _____

State: _____

ZIP (postal code): _____

Country (if not U.S.): _____

Phone: () - _____

FAX: () - _____

email: _____

Affiliation

Government: ☐ Federal ☐ State ☐ Regional ☐ County ☐ City ☐ Other

Other: ☐ Industry ☐ Academic ☐ Environmental ☐ Public Interest ☐ Tribal ☐ Other

Send Form to:

U.S. Environmental Protection Agency
National Beach Health Program
Attn: Mr. Rick Hoffmann (mail code 4305)
401 M St. SW
Washington, DC 20460
FAX: (202) 260-9830

YES ☐ , Please send me a copy of the January 13, 1997, letter and add me to the mailing list.

NO ☐ , Do not send me the January 13, 1997, letter. Just add me to the mailing list.

ECOLOGICAL RISK ASSESSMENT BRANCH/HECD
ALAN HAIS
(202) 260-0658

NEW APPOINTMENTS

Dr. Jeanette Wiltse was recently appointed Director of the Health and Ecological Criteria Division (HECD). She has held a variety of positions in several programs during her 19 year career at EPA. Prior to joining the Office of Water, she was Associate Director, National Center for Environmental Assessment, Office of Research and Development. She served as the Agency's National Air Toxics Coordinator and as Chief of the Risk Analysis Branch of the Office of Toxic Substances. Dr. Wiltse was an attorney in the Office of General Counsel, U.S. Product Safety Commission before joining the EPA. Dr. Wiltse earned a Ph.D. degree in Biochemical Genetics from the University of Minnesota and an M.S. in Microbiology from Baylor University. She received a J.D. from the George Washington University, Washington, DC. She is a member of the bar in Texas and in the District of Columbia.

Dr. Vicki Dellarco is the Senior Science Advisor in the Health and Ecological Criteria Division. She joined the EPA in 1980 where she worked in the Office of Research and Development (ORD). She brings to the Office of Water over 17 years experience in the area of health risk assessment. Prior to joining the Office of Water, she was Senior Health Scientist in ORD's National Center for Environmental Assessment. Dr. Dellarco's professional experience has focused on the genetic effects of environmental chemicals and how gene-chemical interactions lead to carcinogenesis, genetic disease and developmental effects. Dr. Dellarco serves on the editorial boards for the journals *Environmental and Molecular Mutagenesis* and *Mutation Research*. She has taught genetic toxicology and serves as a council member to the Environmental Mutagen Society. Dr. Dellarco received a Ph.D. in Genetics from Iowa State University in 1980.

Dr. Rita Schoeny is an Associate Director, Health and Ecological Criteria Division. She joined EPA in 1986 and has held various positions in the Office of Research and Development. Prior to joining the Office of Water, she was the Science Advisor for the National Center for Environmental Assessment-Cincinnati Group. Dr. Schoeny received a B.S. in Biology at the University of Dayton and a Ph.D. in Microbiology from the School of Medicine, University of Cincinnati. Following completion of a post doctoral fellowship at the Kettering Laboratory, Department of Environmental Health, she was appointed Assistant Professor, Department of Environmental Health, University of Cincinnati Medical School. She holds appointments as Volunteer Associate Professor of Environmental Health (University of Cincinnati) and Adjunct Professor of Toxicology at the University of Kentucky, Lexington.

DEVELOPMENT OF FLORIDA'S STREAM CONDITION INDEX (SCI)

The Florida Department of Environmental Protection (FLDEP) has developed the Florida Stream Condition Index (SCI) as one of the tools it uses to maintain and protect the ecosystem health of the State's waters. A document is now available which outlines the methods, metrics, etc. which

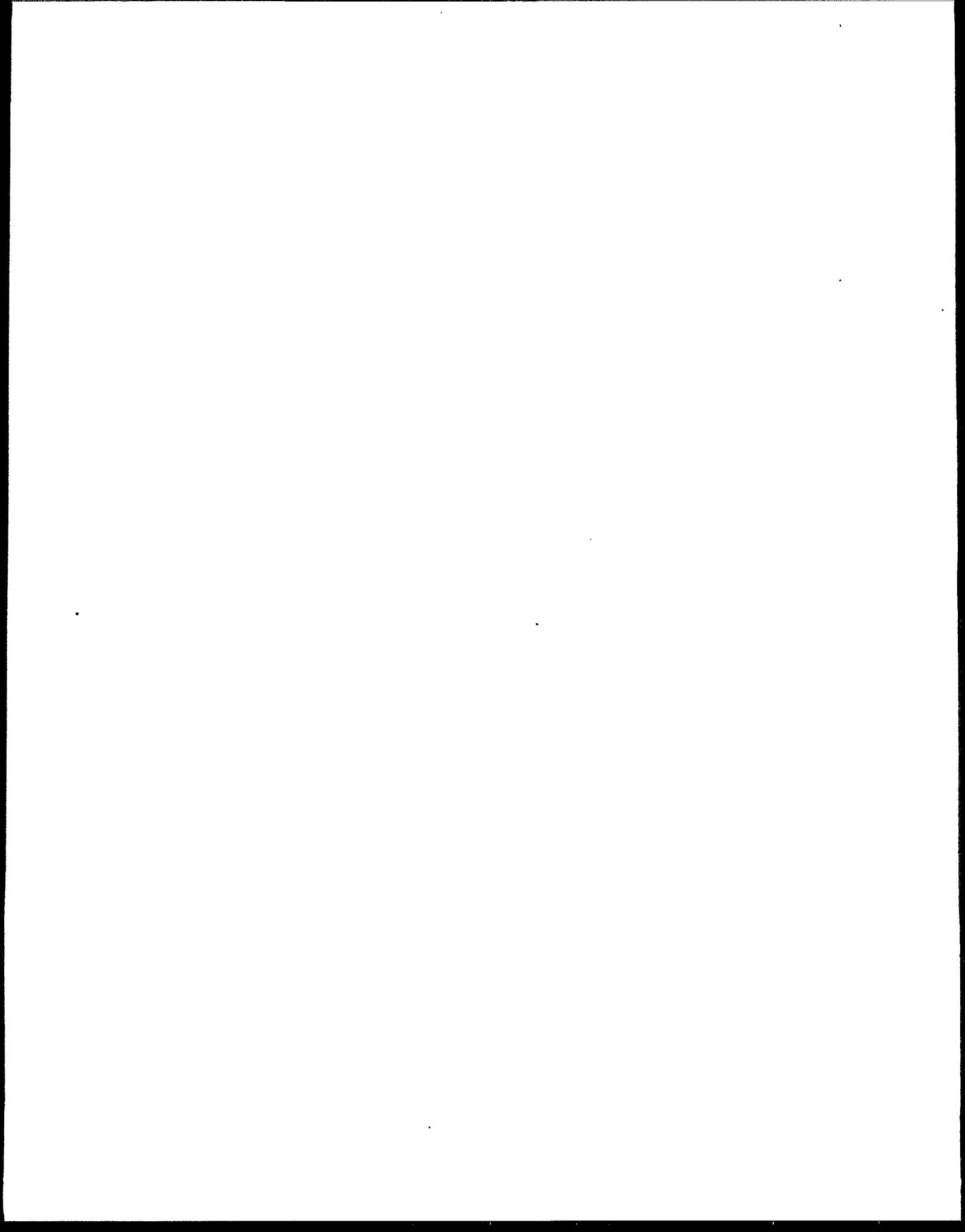
are used as part of the SCI to assess the biological condition of waters in the State of Florida. For more information, or to receive a copy, contact Ellen McCarron at FLDEP: (904) 921-9499, or E-mail Mccarron.E@dep.state.fl.us.

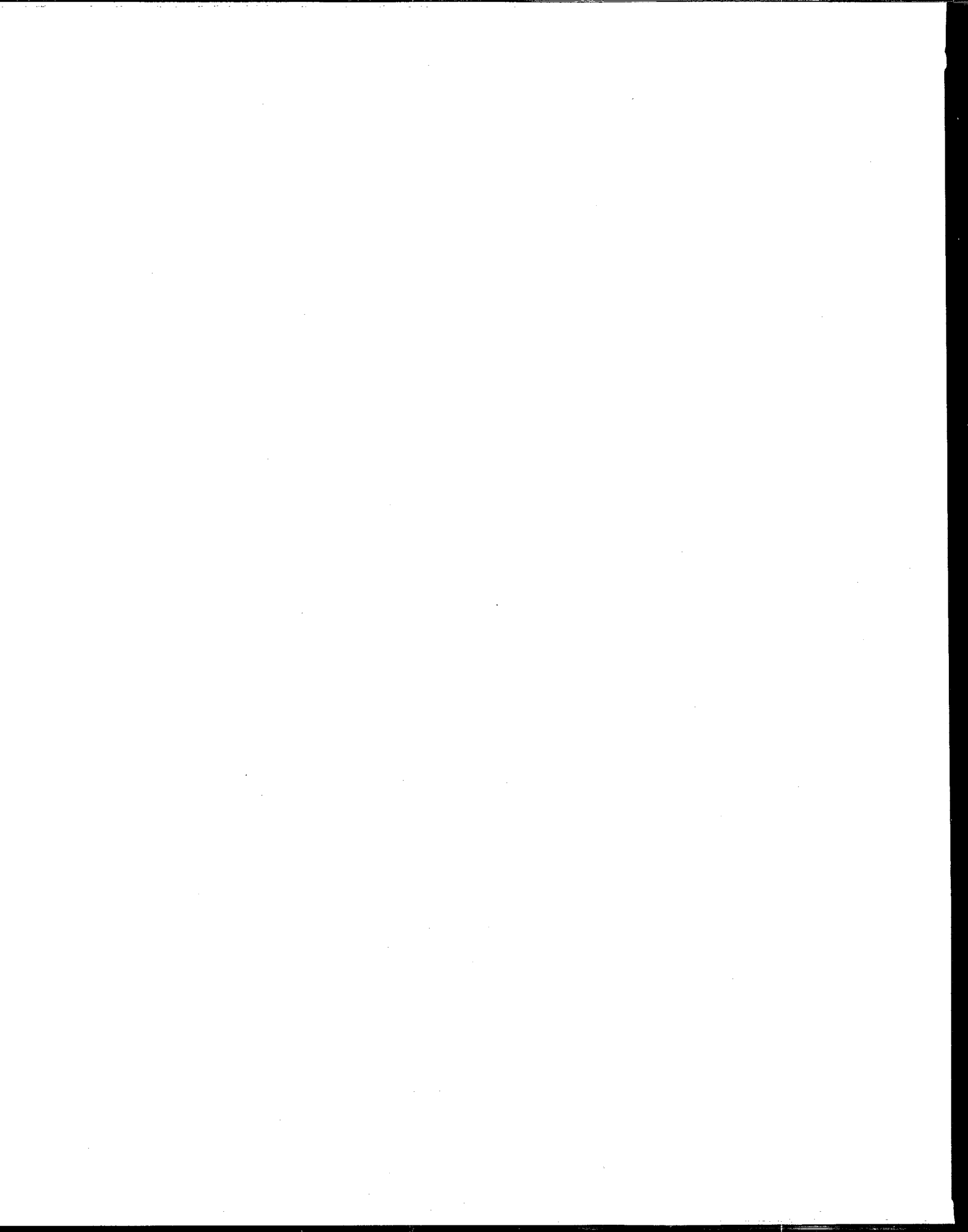
REVISIONS TO RAPID BIOASSESSMENT PROTOCOLS FOR USE IN STREAMS AND RIVERS

The Office of Wetlands, Oceans, and Watersheds (OWOW) of the U.S. Environmental Protection Agency is in the process of revising the Rapid Bioassessment Protocols (RBPs) (Plafkin et al. 1989) based on refinements in the methods that have occurred from testing and implementation of the approach over the past 7 years. Methods for periphyton, and guidance for a performance-based methods system (PBMS) are additions to the RBPs. This revision of the RBPs features methods that are more flexible for sampling aquatic habitat in proportion to its natural representation in the system. Improved techniques for habitat assessment and benthic subsampling are also included.

The EPA web site includes an annotated outline of the revised RBPs and a time line for development and completion of the methods, as well as deadlines for receiving comments on the various chapters and revisions.

To access the document, the URL on the EPA Home Page is:
<http://www.epa.gov/owow/monitoring/AWPD/RBP/bioasses.html>







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