

# **Water on the Web Workshop: Report of Recommendations**

October 23-24, 1998  
Fort Lauderdale, Florida, USA

Sponsored by:  
Organization of American States (OAS) and  
Inter-American Water Resources Network (IWRN)

In Cooperation With:  
Center for International Business and Information Transfer (CIBIT), Florida Atlantic  
University,  
Florida Center for Environmental Studies (CES),  
International Water Resources Association (IWRA), and  
Water Center for the Humid Tropics in Latin America and the Caribbean (CATHALAC)

Hosted by:  
Center for International Business and Information Transfer, Florida Atlantic University,  
and  
Florida Center for Environmental Studies

January 1998

# **WATER ON THE WEB WORKSHOP REPORT OF RECOMMENDATIONS**

## **1.0 Background**

The Inter-American Water Resources Network (IWRN) is a network of networks whose purpose is to build and strengthen water resources partnerships in the Americas. It facilitates technical cooperation and information sharing, develops opportunities for education and training, and forms partnerships to investigate and manage water resources. The Organization of American States (OAS) houses the Technical Secretariat of the IWRN. OAS and IWRN sponsored the “Water on the Web” Workshop in Fort Lauderdale, Florida on October 23 and 24, 1998 (see Appendix 5.1).

Twenty-five invited participants attended the Workshop (see Appendices 5.2 and 5.3). They represented a broad cross-section of Web developers and users throughout the Hemisphere. The Workshop focused on developing a series of actions to improve the use of the Internet as a means of communicating water information to water managers in the Americas and elsewhere. This report describes the Workshop events and summarizes the recommendations made by participants. These Recommendations will be presented at the Third Inter-American Dialogue on Water Management in Panama City, Panama on March 21 to 25, 1999 (see <http://www2.usma.ac.pa/~cathalac/dialogue3.htm>).

The idea for this workshop addressing water resources information on the Internet originated at the International Water Resources Association's 1997 World Water Congress in Montreal, Canada. During the Congress, two separate sessions on networking addressed water information needs and the Internet. A number of participants noted that there should have been one track in which web site developers and information users exchanged views as to how to best deliver water information on the Internet. Participants expressed an interest in creating a workshop that would bring together a group of Web Site developers and users from the water resources community to discuss how well our common information needs are currently being met and to identify steps to improve cooperation between content developers in the future.

Subsequently, the IWRN Advisory Council approved a proposal to organize a small workshop that would address this Internet issue in preparation for the Third Inter-American Dialogue on Water Management to be held in Panama City, Panama on March 21-25, 1999. The Center for International Business and Information Transfer (CIBIT) and the Florida Center for Environmental Studies (CES) agreed to host the Workshop at Florida Atlantic University in Fort Lauderdale on October 23 and 24, 1998. The Water Center for the Humid Tropics in Latin America and the Caribbean (CATHALAC) and the International Water Resources Association (IWRA), both members of the IWRN Advisory Council, assisted in organizing the workshop.

## **2.0 Water on the Web Workshop Objectives**

As the drive towards sustainable water management increases the demand for information,

the Internet and related technologies are transforming the ways in which we deal with information. This convergence of intensifying information needs and changing information capabilities presents a unique opportunity for water resource professionals to examine their present information practices on the World Wide Web. The Water on the Web Workshop was the first in a series of planned events that will systematically address water related information issues and the Internet. The objectives of this Workshop included:

**Exchange of Information** - To share successful and unsuccessful Web experiences among the participants of both users and providers and to illustrate state-of-the-art techniques used by institutions developing and maintaining Web Sites with significant water content.

**Assessment** - To provide a timely assessment of existing Web sites and information delivery practices from the standpoint of policy makers and managers need for water information in the context of sustainable development.

**Identification and Prioritization** - To identify critical overlaps and gaps between available information and user needs and to begin to prioritize these needs.

**Opportunities for Collaboration** - To provide an open dialogue where opportunities for collaboratively addressing these information issues can be discussed and the foundation for strategies can be built.

**Formulation of a Strategic Plan** - To define the most important steps that are needed to solve critical information issues using Internet technologies and to establish a timetable and protocols for implementing collaborative efforts.

This Workshop was a timely opportunity for members of the IWRN water community and others working with environmental information to conduct in-depth discussions about critical information technology issues in light of our very real and pressing decision-making needs. Participants learned about current on-line information efforts, identified ways to improve these information delivery systems, and helped develop opportunities for collaborative efforts throughout the Hemisphere to further our common water resources management goals. One important issue was to make these technologies work better for us as water resource professionals in the day-to-day environmental management of river basins.

### **3.0 Results of Workshop Group Sessions**

To facilitate these Workshop objectives, three working groups were created that focused around the following key issues:

- C Working Group A: User Needs and Assessment of Existing Efforts.
- C Working Group B: Design and Technology Issues.
- C Working Group C: Opportunities for Collaboration.

Participants served as a member of two working groups of their choice. Each group had a Chair and Reporter. Inevitably, the discussions of the three groups overlapped as these information issues are highly interrelated. The following summarizes the primary issues of concern for each of the working groups:

### **3.1 Working Group A: User Needs and Assessment of Existing Efforts**

- C Generally, the needs of the users throughout the water community should drive the development of Web sites. In the case of the IWRN, the needs of users in Latin America and other developing areas should be of particular concern. Mechanisms and forums are needed for users to communicate with content developers about their information and data needs.
- C Information providers need more detailed knowledge about the types of information that are useful to their users. This includes awareness of the different types of users and their particular decision-making needs. Improving the utility or usefulness of information should serve as a guideline in information delivery. Information exchange between content developers would be useful here as well.
- C Existing efforts to provide water information on the Internet exhibit much duplication of effort that is neither cost-effective nor useful to users. Examples include calendars and conference announcements, web links to related sites, and certain discussion forums. This duplication of effort may hinder the further development of more useful “value added” information.
- C A review of existing efforts reveal gaps in water information delivered over the Web. Examples of information that would be useful to decision-makers, particularly those in Latin America, include data categorized by watersheds, information on legal and social aspects of water resources development, water resources management experiences, research results, water pricing information, and so on. The information gaps are critical to the sustainable management of water resources and efforts are urgently needed to address these information gaps. It is difficult for individual content providers to singularly address these existing gaps. Collaboration and specialization will be necessary.
- C One of the overwhelming user needs relates to mechanisms for finding existing information on the World Wide Web. Efforts are needed to complement the existing mega-search engines that will better facilitate users in locating needed water related information.
- C While there is significant disparity in Web site quality, there are many excellent water related Web Sites delivering high quality products and these efforts need to be promoted within the water community. Both users and developers can benefit from these efforts. Discussions of “Lessons Learned” case studies would prove

fruitful and further advance the effectiveness of our Web efforts.

### **3.2 Working Group B: Design and Technology Issues**

- C User accessibility and user friendliness are critically important to any Web effort, and we need to create more user-oriented Web sites for the water community. This is especially true when international users are considered. The ease of interpreting of information, navigating a site, language issues, and the loading times of Web pages are among the characteristics that must influence how we design our Web sites. Minimizing potential user problems is an important criterion for the information to be effectively utilized.
  
- C The issue of quality control for Web site content is another important issue. Developing guidelines to ensure some minimum level of content quality, presentation, and delivery may prove useful. Standards for data are particularly important.
  
- C Creation of minimal design standards were discussed to improve usability including:
  - a) Avoiding long download times.
  - b) Minimizing the use of graphics, animation, etc.
  - c) Making effective use of graphics.
  - d) Dating and marking material posted on-line (authorship/timeliness).
  - e) Avoiding the use of frames.
  - f) Providing navigational support on a site.
  - g) Avoiding orphan pages.
  - h) Avoiding long scrolling pages.
  - i) Maximizing browser compatibility.
  
- C There is a need for techniques and studies that evaluate the effectiveness of an existing Web site. Benchmarking information could be developed from such studies and would contribute to the improvement of Web site quality. Decision-making support for content developers and Webmasters is needed.
  
- C While there is a great need to keep abreast of the rapidly changing technologies to maximize its beneficial impact on sharing information, there also is a need not to “lose” users who cannot access such technologies. We must pay attention to the diffusion of technologies in the international arena and complement our online delivery systems, if necessary, with email, CD-ROM, and print media.

### **3.3 Working Group C: Opportunities for Collaboration**

- C Collaboration is a critically important issue at this stage of Web development in the water community. To effectively address this issue, we must acknowledge that

- discrepancies exist in access to technology and the Internet between countries, regions, and socioeconomic levels of society. Information is power in today's decisionmaking environment and inequalities surround the existing flows of information. These features serve to further highlight the value of sharing information that can be brought about by collaborative efforts.
- C Collaboration raises many important issues: Collaboration with and between whom? How to initiate and sustain collaborative efforts? How are they to be funded? When is collaboration beneficial? How to demonstrate the value of cooperation? How can the collaborative group expand over time? Participants felt that the success of any collaborative effort would be measured by the degree of which collaboration is directed by the users. Users must be included in the development and design of such efforts by using surveys, user groups, and other feedback mechanisms.
  - C The quality of information contained at Web Sites is a prime concern and various quality control considerations need to be built into our collaborative efforts.
  - C A dual need exists to encourage standardization and specialization of Web Sites through:
    - i) Site development guidelines promoting user friendly and high quality information delivery (such as html templates, indexing techniques, thesaurus, design standards, meta data etc.).
    - ii) Collaborative efforts promoting specialization of certain over-duplicated tasks (such as event calendars, links databases, etc.)
  - C There is a need for evaluating the results rankings from searched data. Techniques for dealing with the major search engines could be shared and a water search engine could be developed. Research into the development of a Global Water Information Locator system is also needed.
  - C Small collaborating groups are needed to obtain funding to address specific information needs. The formation of these groups needs to be investigated quickly so that funding sources could be identified.
  - C Particular attention should be devoted to the development and investment in Latin American Web efforts as part of water resources development projects and to incorporate these Web sites into collaborative projects.
  - C Discussions about sound decision-making, the role of data, and the use of the Internet as a research tool should be part of such collaborative efforts. Opportunities provided by the Internet to improve existing decision-making frameworks should be utilized.

- C Fundamental to collaborative efforts is the use of these technologies in building community. A sense of community is essential to the success of these efforts. New mechanisms of conducting dialogue over the Internet should be developed and used wherever appropriate.
- C Collaborative efforts must eventually get beyond providing information and into outreach in the forms of training, seminars, and the development of river basin decision support systems.

#### **4.0 Workshop Recommendations**

Stemming from the in-depth discussions of the three Working Groups as outlined above, the following recommendations were agreed upon by workshop participants:

- A. A tentative network of web site operators and users called WaterWeb was established to carry out these recommendations listed below.
- B. A list server should be established to continue the dialogue begun at the workshop. This forum will also allow other interested parties to join in the discussions begun at the Workshop. The Great Lakes Information Network agreed to host the list server <waterweb@great-lakes.net>.
- C. A Web site should be developed to contain the work of this group and serve as a portal to its efforts and as a common information resource maintained by all for use by all. This site will be located at <www.waterweb.org>. The Florida Center For Environmental Studies will initially host the site with the assistance and input from members of the network
- D. An Advisory Committee will be formed to guide the operation of the network, the implementation of these recommendations and the development of the waterweb.org site. The following agreed serve on this committee:
  - i) Center for International Business and Information Technology  
Mantha Mehallis
  - ii) Florida Center for Environmental Studies  
Len Berry
  - iii) Global Environmental Monitoring System (GEMS)  
Kelly Hodgson
  - iv) Inter-American Water Resources Network (OAS/IWRN)  
David Moody/Nelson da Franca
  - v) International Water Resources Association (IWRA)  
Faye Anderson
  - vi) Latin American Basin Organizations (LAMBO)  
J. Eduardo Mestre

vii) United Nations Educational, Scientific, and Cultural Organization (UNESCO),  
International Hydrologic Program (IHP) and the Global Water Partnership

Carlos Fernandez Jauregui

viii) Water Center for the Humid Tropics in Latin America and the Caribbean  
(CATHALAC)

Tom Bakkum

ix) External Consultant: USGS

Ken Lanfear

Other members may be added as the Advisory Committee begins its work.

- E. Internet based group software will be used by this group's committees to further their work (document development, discussion forums, and scheduling)
- F. Create a Web Ring of key water related Web sites. Quality control will be a critical factor in joining the Web Ring. Information about the Water Web Ring would be found on the WaterWeb site <[www.waterweb.org](http://www.waterweb.org)>.
- G. Several products will be prepared for the Third Inter-American Dialogue on Water Management in Panama, March 21-25, 1999:
  - i) Special plenary session on information issues.
  - ii) Set of bookmarks of key Water Web sites.
  - iii) Special issue of *Water International* for participants.
  - iv) Update and proposal of action for WaterWeb site and related activities.
  - v) Identification of collaborative efforts with top priority.
- H. Conduct a Water Information Summit in October 1999 in Ft. Lauderdale, Florida with approximately 150 participants to broaden the scope of this Workshop.
- I. Prepare sessions at various conferences to spread the word of our efforts, particularly in Latin America. Already scheduled are:
  - i) AWRA Annual Meeting, Seattle, December 1999 (one session)
  - ii) IWRA World Water Congress, Australia, March 2000 (two sessions)

## **5.0 APPENDICES**

5.1: Workshop Program

5.2: List of Participants

5.3: Participant's Survey Responses

## APPENDIX 5.1

# Water On the Web Workshop

Ft. Lauderdale, FL  
October 23-24, 1998

## Agenda Day One

8:30 - 8:45 **Welcoming Remarks**  
Nelson da Franca, Organization of American States  
Leonard Berry, Florida Center for Environmental Studies  
Mantha Mehallis, Center for International Business and Information

Transfer

8:45 - 9:15 **Introductions**

9:15 - 11:15 **Plenary Session I**

*The Application of the GLIN Model Throughout the Americas: What are the Critical Components of an Effective Network?*

Christine Manninen, GLIN

Coffee Break

*A Guided Tour of the USGS Water Website: Lessons Learned*

Ken Lanfear, USGS

11:15 - 11:45 **Charges to Working Groups**  
David Moody, OAS

11:45 - 13:00 **Lunch** (on our own)

13:00 - 15:00 **Working Groups Session I**

15:00 - 15:20 **Coffee Break**

15:15 - 17:15 **Working Groups Session II**

18:00 **Reception - CIBIT Balcony**

# **Water On the Web Workshop**

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## **Agenda Day Two**

- 8:30 - 9:30 **Working Groups Session III**  
Synthesis and Final Recommendations
- 9:30 - 12:00 **Plenary Session II**  
Presentation/Discussion of Recommendations  
Working Group A  
Coffee Break  
Working Group B  
Working Group C
- 12:00 - 13:00 **Lunch** (brought in)  
**Recommendations and Future Plans**
- 13:00 **Adjourn**

## Appendix 5.2

### Water on the Web Workshop

Ft. Lauderdale, Florida

October 23-24, 1998

#### *Final Participants List*

#### **Faye Anderson**

Information Officer

International Water Resources Association

<http://www.iwra.siu.edu>

4535 Faner Hall

Southern Illinois University

Carbondale, IL 62901-4516 USA

[fayeand@siu.edu](mailto:fayeand@siu.edu)

fax: (618) 453-2671

phone: (618) 453-6453

#### **Tom Bakkum**

Associate Expert

CATHALAC/UNESCO

[www2.usma.ac.pa/~cathalac](http://www2.usma.ac.pa/~cathalac)

CATHALAC

PO Box 873372

Zona 7

Panama

REPUBLIC OF PANAMA

[cathalac@sinfo.net](mailto:cathalac@sinfo.net)

fax (+507)232-6834

(+507)232-6851/6805/6738

#### **Leonard Berry**

Director

Center for Environmental Studies

<http://www.ces.fau.edu>

3970 RCA Blvd. Suite 7401

Palm Beach Garden, FL 33410

[berry@fau.edu](mailto:berry@fau.edu)

fax 561-691-8540

561-591-8554 or 297-2935

#### **Nelson da Franca Ribeiro dos Anjos**

Principal Water Resources Specialist

Organization of American States - OAS

<http://www.oas.org>  
1889 F Street NW  
Room 340C  
Washington, DC 20006  
[ndafranca@oas.org](mailto:ndafranca@oas.org)  
fax 202-458-3560  
202-458-3454

**Terry Dodge**

Information Service Coordinator  
Florida Center for Environmental Studies  
[www.ces.fau.edu](http://www.ces.fau.edu)  
3970 RCA Blvd.  
Suite 7401  
Palm Beach Gardens, FL 33410  
[tdodge@ces.fau.edu](mailto:tdodge@ces.fau.edu)  
fax 561-691-8544  
561-691-8557

**Maria Concepcion Donoso**

Directora  
Centro del Agua del Tropico Humedo (CATHALAC)  
[www2.usma.ac.pa/~cathalac](http://www2.usma.ac.pa/~cathalac)  
CATHALAC  
PO Box 873372  
Zona 7  
Panama  
REPUBLIC OF PANAMA  
[cathalac@sinfo.net](mailto:cathalac@sinfo.net)  
fax (+507) 232-6834  
(+507) 232-6851/6805/6738

**Dennis Dunn**

Technical Coordinator  
Florida Center for Environmental Studies  
[www.ces.fau.edu](http://www.ces.fau.edu)  
[riverwoods.ces.fau.edu](http://riverwoods.ces.fau.edu)  
3970 RCA Blvd  
Suite 7401  
Palm Beach Gardens, FL 33410  
[ddunn@ces.fau.edu](mailto:ddunn@ces.fau.edu)  
fax 561-691-8540  
561-691-8558

**C. Mark Eakin**

Program Manager  
National Oceanic and Atmospheric Administration  
Office of Global Programs  
[www.ogp.noaa.gov](http://www.ogp.noaa.gov)  
[www.ogp.noaa.gov/enso](http://www.ogp.noaa.gov/enso)  
1100 Wayne Ave.  
Suite 1210  
Silver Spring, MO 20910-5603  
[eakin@ogp.noaa.gov](mailto:eakin@ogp.noaa.gov)  
fax 301-427-2073  
301-427-2089 ext.109

**Laura A. Edwards**  
Information Officer  
Global Water Partnership/SIDA  
[www.gwpforum.org](http://www.gwpforum.org)  
S105 25 Stockholm  
SWEDEN  
[laura.edwards@sida.se](mailto:laura.edwards@sida.se)  
fax 46-8-698-5627  
46-8-698-5384

**Carlos A. Fernandez-Jauregui**  
Regional Hydrologist  
UNESCO  
<http://www.unesco.org.uy/phi>  
<http://www.unesco.org/orgs/unesco>  
UNESCO Montevideo  
Casilla 859  
11000 Montevideo  
URUGUAY  
[uhcfj@unesco.org.uy](mailto:uhcfj@unesco.org.uy)  
fax (598-2) 7072140  
(598-2) 707 2023

**German Gavilan**  
Research Staff  
Indiana Water Resources Research Center  
[Http://ingris.acn.purdue.edu:9999/wetnet/search/wrrc.html](http://ingris.acn.purdue.edu:9999/wetnet/search/wrrc.html)  
374 Potter Building  
Purdue University  
West Lafayette IN  
47905  
[gavilan@purdue.edu](mailto:gavilan@purdue.edu)  
fax 765-494-2720

765-494-3676

**Sara Hedlund**

Information Assistant  
Global Water Partnership  
(GWP Secretariat)  
[www.sida.se/gwp](http://www.sida.se/gwp)  
[www.gwpforum.org](http://www.gwpforum.org)  
GWP Secretariat  
SIDA  
S-105 25 Stockholm  
Sweden  
[sara.hedlund@sida.se](mailto:sara.hedlund@sida.se)  
fax +46 8-698-5627  
+46 8-698-5313

**Kelly Hodgson**

Environmental Analyst  
Gems/ Water Programme  
[www.cclw.ca/gems](http://www.cclw.ca/gems)  
National Water Research Institute  
Canada Centre For Inland Waters  
867 Lakeshore Road  
P.O. Box 5050  
Burlington Ontario  
Canada  
L7R 4A6  
[Kelly.Hodgson@cciw.ca](mailto:Kelly.Hodgson@cciw.ca)  
fax 905-336-4582  
905-319-6908

**Kenneth J. Lanfear**

Chief, World Wide Web Program  
U.S. Geological Survey  
[www.water.usgs.gov](http://www.water.usgs.gov)  
12201 Sunrise Vally Dr.  
5439  
Reston, Va. 20192  
[Lanfear@usgs.gov](mailto:Lanfear@usgs.gov)  
phone 703-648-6852

**W. Christopher Lenhardt**

Information Scientist  
CIESIN ( Center for International Earth  
Science Information Network)

www.ciesin.org  
sedae.ciesin.org  
CIESIN  
Columbia University  
P.O. Box 1000  
61 Route 9W  
Palisades, NY 10964  
chris.lenhardt@ciesin.org  
fax 914-365-8922  
914-365-8966

**Christine Manninen**  
Project Manager, GLIN  
Great Lakes Commission  
www.great-lakes.net  
400 Fourth Street  
Argus II Building  
Ann Arbor, MI 48103-4816  
manninen@glc.org  
fax 734-669-0764  
734-665-9135

**Mantha Mehallis**  
Director  
Center for International Business & Information Transfer  
<http://www.fau.edu/cibit>  
CIBIT  
Florida Atlantic University  
220 S.E. 2<sup>nd</sup> Ave.  
Ft, Lauderdale, FL 33301  
mehallis@acc.fau.edu  
fax: 954-355-5245  
954-760-5613

**Laura Melamed**  
Coordinator of Meetings and Seminars  
National Institute for Water and the Environment (INA)  
www.ina.gov.ar  
Autopista Ezeiza-Canuelas  
Tramo Jorge Newberry  
Km 1,620  
(1840) Ezeiza  
Provincia De Buenos Aires,  
ARGENTINA  
redagua@ina.gov.ar

fax +54-1 480-4576/0433  
+54-1-4804576/0433

**J. Eduardo Mestre**

Permanent Technical Secretary  
International Latin American Network of River Basin Organizations (LANBO)  
211 Plateros Ave  
Col. Carretas C.P 76050  
Santiago de Queretaro, Queretaro  
MEXICO  
tulipe@infosel.net.mx  
fax 52 42 13 6916  
52 42 23 7556

**David W. Moody**

Water Resources Consultant  
Organization of American States  
1889 F. Street, NW Rm.340-A  
Unit for Sustainable Development and Environment  
Washington DC 20006  
www.oas.org  
iwrn.ces.fau.edu  
dwmooddy@aol.com  
fax 202-458-3560  
202-458-3571

**Alberto V. Palombo**

Water Management Consultant  
7922 La Mirada Drive  
Boca Raton, FL 33433  
apalombo@emi.net  
fax 561-361-6897  
561-361-6847

**Michael Routhier**

GIS/ Remote Sensing Analyst  
Complex Systems Resource Center  
University of New Hampshire  
www.r-hydronet.sr.unh.edu  
www.rivdis.sr.unh.edu  
www.r-arcticnet.sr.unh.edu  
Complex Systems Research Center  
Institute for the Study of Earth, Oceans and Space  
Morse Hall  
Dunham, NH 03824

mike.routhier@unh.edu  
fax 603-862-0188  
603-862-1792

**Debee Schwarz**

Deputy Director, Public Affairs  
U.S. Bureau of Reclamation  
Department of Interior  
www.usbr.gov  
Bureau of Reclamation  
Attn: Debee Schwarz W-1542  
1849 C. ST. NW  
Washington, DC. 20240  
dschwarz@usbr.gov  
fax 202-208-3381  
202-208-4662

**Tuan-Eng Tan**

Webmaster  
University Water Information Network  
www.uwin.siu.edu  
4543 Faner Hall  
Southern Illinois University at Carbondale  
Carbondale, IL 62901-4526  
admin@uwin.siu.edu  
fax 618-453-2671  
618-536-7571

## Appendix 5.3

### Water on the Web Participant Survey Responses

October 23-24, 1999  
Ft. Lauderdale, Florida

#### 2. What types of water information/data do you routinely get on the World Wide Web?

##### Information:

- C Contact information for individuals: names, addresses, etc.
- C Conference announcements/papers
- C Information on organizations and government agencies
- C On-going research/recently completed research
- C Government reports/publications
- C Topical information on water problems
- C Appropriations updates from U.S. Congress
- C Information on stakeholders
- C Water efficiency information
- C Maps
- C Bibliographies

##### Data:

- C GIS data
- C Real-time data (streamflow, etc.)
- C Water level data
- C Weather forecasts/climate data
- C Water per capita

*in short, "anything and everything"*

#### 3. List 5 - 10 specific water-related Web resources or web development resources that you have found most useful in performing your job (datasets, manuals, documents, reports, maps, etc.)

*\*\*see attached Appendix\*\**

#### 4. What is your overall evaluation of water related information available on the World Wide Web?

- C Good, but can be better. Amazing progress compared to before we had the Web.
- C It is almost unlimited.
- C There is lots of information available, but not much organization or cataloging.
- C Very Good to Excellent, it is just a matter of finding what you need.

- C Good, but needs to be improved regionally.
- C There are many websites and documents, but you have to be very critical in order to ensure that the information is RELIABLE.
- C Generally speaking, some sites are good, providing quality outputs with convenient access. For many, however, there is no validation of what is published. This is urgently needed.
- C Most of what I see on-line is very non-technical. It seems the “best content” providers are often the worst at Web design and information dissemination...there needs to be more gatekeeping about what should be disseminated via the Internet and how it should be disseminated.
- C Generally well organized, but there are untapped possibilities for improvement.
- C In my field of climate...there is a tremendous amount of climate, and water, information available on the Web. However, it is difficult to find because of lack of centralization.
- C Information and reports are quite readily available. Availability of raw data is scarcer. There are institutional and privacy concerns...
- C Information resources are plentiful, but topical dialogue on issues by decision-makers is scarce.
- C Very erratic, and difficult to find sites with significant content. Many sites provide an overview of what they do but present little hard, specific scientific or engineering information.
- C It is not preselected and it is very difficult to find specific information/data, but if you take enough time in your efforts, you can find almost everything.
- C Varies greatly, users need to be aware and utilize critical information skills more than ever.  
I never cease to be amazed by what high quality material I can find on-line.

**5. What types of water related information/data do you need that is not available on the World Wide Web?**

- C Searchable, annotated database of web sites
- C Centralized searching of multiple sources
- C historical GIS data
- C case studies
- C conference proceedings papers
- C social aspects of water resources
- C water quality
- C comprehensive list of organizations
- C water pricing information
- C Latin American data
- C Annotated reviews of studies and research projects
- C Project experiences of NGOs and community groups
- C Forthcoming investment programmes from international organizations
- C The problem here is that many things I might list may actually exist.  
However...what I could use is information on regional sources...

- C This is a tough question because the Web is so huge, it's impossible to gauge everything that is out there. However, what I think is missing is historical documentation and research findings on our world's water resources. When you visit an agencies web site...you typically find an organizational chart, list of staff, project overviews, etc...all important information but at times not the most important offering for a web audience. INFORMATION is where its at. I strongly believe you have to look at the target audience and let them drive your web development...not the CEO of your company/organization.
- C Inventories of water related databases with descriptions of monitoring programs, stations, parameters, frequency and distribution of the data, as well as contact sites.
- C Guidance on information and communication strategies for the water sectors. How can we avoid broadening the information gap?
- C Cannot think of any. At least none that I believe should be available to me at no cost.
- C In my opinion, there are three major needs on the web today:  
 A) We need more web sites that serve as indices or directories to web resources. Whether we are discussing water, climate or almost any other subject, the dizzying array of information sources makes it difficult to find information. This leads to my first rule of web information: publication on a web page does not mean information will reach users. Through thematic pages that centralize access to information, users and information suppliers can more easily connect. Also, competition between groups maintaining thematic groups is both good and bad. It encourages greater activity, but must be done in a way that increases the availability of information to the users.  
 B) We need more work to develop products that are useful to users in various sectors. Forecast products showing below normal seasonal rainfall are useful, but various sectors may have more specific needs. Certain rates of streamflow or reservoir levels may be essential for irrigation. Certain minimal soil moisture contents may be needed to prevent crop loss. In some cases the amount of rainfall may be less important than the timing. While forecasts for all user needs may not be possible, sometimes a small amount of analysis will result in a product much more useful for that sector. My second rule is: what your think someone needs may not be what they need. This problem should often be solved by groups in their sector that establish value added services based on existing web resources. However, the more we can do to improve utility of information, the more valuable or services will be.  
 C) We need more web sites that interpret information to the level of the users. We have some great sources of data on the web that are thoroughly unintelligible to most users. While I have worked to provide information on our sites in a way that is understandable, I frequently receive input from people who inform me that I have not done this well enough. My third rule: just because you can understand what you have posted does not mean that your users can. We need to work with users to make sure that we provide educational services that make our web resources more understandable, and thereby more useful to users.

## **6. What topics would you like to see discussed in each of the Working Groups?**

### **Working Group A: User Needs and Assessment of Existing Efforts**

#### Availability Issues: Quantity and Quality

- C How do we define “needs” here? (place emphasis on value of information)
- C What is being done with the information already available? Why/how is more needed?
- C How do we identify common information needs we can best satisfy?
- C What decision-making tasks are we targeting here? Should we be targeting?
- C How do we evaluate what is important info?
- C Define the “best” efforts among water information sites.
- C What are the characteristics that make them the best? What lessons can we learn from them?
- C Nature and extent of overlapping efforts across Web Sites
- C How do we deal with the overkill of information on the Web
- C Standards for improving content and delivery
- C Do we have interest in conducting a survey on user needs throughout the Hemisphere?
- C Quality control of available information
- C Assessment of data availability and quality
- C What is the state of information delivery to those with email access only?
- C How can Latin American data/information be improved?
- C Expert systems

#### Finding Information on the Web

- C Classification of information/Current cataloguing efforts
- C Use of keywords to categorize Sites
- C How do users navigate the Web to find specific information?
- C How do users navigate at a new site?
- C How can we complement the existing search engines?

#### Are We Developing Web Sites with Users in Mind

- C How do Web Sites take their target audience into account in development?
- C “Who” is driving the development of your Web Sites?
- C How do you learn about your users? What have you learned in the process?
- C How do we educate the users? What could we be doing?

#### Other Issues:

- C What levels of usage are common for various types of Web Sites?
- C How are our current efforts funded?
- C Should users be paying for some content?
- C Separation of commercial from other sources of information
- C Promotion of existing Web Sites

- C Do we need cost-effective ways to take information off the Web to disseminate it (CD-ROM)?

## **Working Group B: Design and Technology Issues**

### Site Design

- C What is the minimal equipment/software/connection we can expect users to have?
- C What is the state of Internet diffusion throughout the world? Level of technology used?
- C What are the most cost-effective ways to get information on-line?
- C What are the most cost-effective ways to update Web Sites?
- C What are the best visual design techniques that improve user friendliness without graphic overkill?
- C What are minimal staff expertise requirements for a large Web Site? A small Web Site?
- C What are the minimal requirements to operate a small Web Site?
- C Pros and Cons of the bells and whistles: Java applications, video, audio, etc.
- C How to strike a balance between user accessibility and public interest?
- C What are the best search engine strategies to help users find information?
- C How do we handle security and encryption internationally?
- C How usable are our Sites? How do you define user-friendliness?
- C What makes for a poor Web Site?

### Database Issues

- C Information indexing standards and protocols
- C How do we develop better interfaces with data?
- C How can we improve the ability of users to tailor products to their own needs?
- C How we can make data more easily available to users in developing countries?
- C What are the most promising new technologies?

### Others

- C How do we evaluate our Web Sites effectiveness?
- C How can training on web site development be offered on-line? On use of various software?
- C Language issues, availability of bilingual materials
- C How do you benchmark your site?

## **Working Group C: Opportunities for Collaboration**

### Tools for Collaborative Efforts

- C How can we minimize duplicated efforts? Promote specialization?
- C How do we best showcase existing Sites?
- C How could we implement a system of specialization? Is this desirable?
- C Linkages among water web sites, directories, indices, etc.
- C Metatags, Web Rings, Virtual Water Library/Water Portal/Water Gateway, Global Water Resource Locator
- C Uses of mirror sites throughout the world

- C Web-based Groupware tools: In Tandem, eRoom, Alta Vista Forum
- C Use of the Internet for training and education.
- C Development of on-line seminars, especially for those in developing countries

#### Issues Concerning Success of Collaboration

- C How can we use technology to build community?
- C How will we evaluate which efforts we want to pursue? What protocols will we follow?
- C Are inter-institutional webmasters, and site focal points, necessary for coordination?
- C How do we fund the long-term sustainability of a network?
- C What is the justification for investment in these efforts?
- C How do we secure management commitments to Internet networks?
- C What Promotion/Marketing of Workshop efforts is needed?
- C Listserv developed to further Workshop efforts
- C Identify potential collaborations to capitalize on the ground floor of Internet 2
- C How can email and other technologies be used to conduct our business in a cost effective manner?
- C How can we develop the institutional infrastructure to continue Workshop efforts over time?
- C How to promote development and involvement of Latin American Sites?
- C Build a “Lessons Learned” database of water Web experiences, both users and developers

### **7. What results or recommendations would you like to see come out of the Workshop?**

- C An idea of where we go from here.
- C A roadmap or plan of ACTION.
- C Improved understanding of how users are accessing water websites and information.
- C Improved understanding of what other agencies are offering on the Web and what their challenges are in terms of development and long-term funding for maintenance.
- C Establishment of a Web Experiences database for users and developers for water sector
- C Efforts/Plan to reduce duplication of effort
- C Commitments to set up: linkages, directories, mirror sites, Web Rings, listserver, etc.
- C Efforts/Plan to improve communications throughout the international water community, particularly across organizations
- C Promotion of regional Internet partnerships for water
- C Promotion of Latin American Web sites and information efforts
- C Creation of permanent entity to promote cooperation
- C Working Group to investigate best relations/practices to continue the aims of this

## Workshop

- C Working Group to investigate funding/financing issues
- C An understanding that information sharing is costly - TANSTAAFL
- C Working Group on ensuring quality of water information available on-line
- C I see two practical results that could come out. The first is a manual or “cookbook” that makes it easier for content providers to learn how to best distribute their information thta provides greatest benefit to their users. It could be Web based, frequently updated, and include a wide array of resources that the user can apply. This is the easy result. The harder result would be to establish a mechanism for ongoing dialogue that could continue to improve the information being made available. This could take the form of ongoing dialogues on an electronic medium. However, periodic “user” meetings with “content providers” would go a long way to improve this process.
- C Coordination efforts for the development of on-line seminars and training workshops on both Internet and water resources topics.
- C Development of annual awards naming the best Web efforts in water field; could be developed in conjunction with the Web Ring.