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# **Libraries as a Community Resource for Environmental Information**

An Environmental Law Institute  
Report on a September 18-20, 2000  
Online Dialogue

**LIBRARIES AS A COMMUNITY  
RESOURCE FOR  
ENVIRONMENTAL INFORMATION**

**AN ENVIRONMENTAL LAW INSTITUTE REPORT  
ON A SEPTEMBER 18-29, 2000 ONLINE DIALOGUE**

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*Libraries As a Community Resource for Environmental Information, An Environmental Law Institute Report on a September 18-29, 2000 Online Dialogue*

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This report summarizes the results of an online Dialogue entitled “Libraries as a Community Resource for Environmental Information” that was conducted from September 18 through September 29, 2000. Environmental Law Institute (ELI) managed the project under a grant from the Environmental Protection Agency (EPA). Information Renaissance, a non-profit corporation that promotes the use of networking infrastructure to support education, community development, and democratic expression produced the Dialogue.

## **BACKGROUND**

The project builds upon earlier research that is described in an ELI report titled “*Building Capacity to Participate in EPA Activities: A Needs Assessment*.” The 1999 study, or Phase I of ELI’s research, examined through interviews as well as research on various capacity building models, the capacity building tools that could foster community participation in EPA activities. The research found that information is a key capacity-building tool. Specifically, ELI’s needs assessment indicated that, with respect to EPA activities, citizens want information that is timely (*i.e.*, early in the process), pro-actively distributed and understandable. The information should also explain the relevance of the EPA activity to the community. The credibility of the messenger or deliverer of the information was also viewed as critical. Finally, because of a strong preference for in-person, local delivery of information, the report suggested the potential value in exploring the use of existing infrastructures and programs to deliver information, given the difficulties and possible inefficiencies in creating a new information delivery infrastructure. For additional, related findings of the study see “*Building the Capacity to Participate in EPA Activities: A Needs Assessment*,” Environmental Law Institute, Copyright © 1999 (available online at [www.eli.org](http://www.eli.org) and [www.network-democracy.org/epa/bb/eli/capacity-0.html](http://www.network-democracy.org/epa/bb/eli/capacity-0.html)).

Following the 1999 study, ELI began work on the second phase of its research which focused on whether a collaboration between EPA and the public libraries could serve to increase capacity of communities to participate in EPA activities. ELI was interested in using an online Dialogue approach to gather information and foster discussion because it uses a technology that is likely to be used increasingly by private and non-governmental organizations as a means of disseminating and exchanging information, as well as by government agencies as a means of public participation in environmental policy making. In addition, a core aspect of any collaboration between EPA and public libraries would be likely to rely heavily on web-based information sources, such as EPA’s web site, to provide information to communities, because the web has become a major vehicle for disseminating government information in a cost effective and efficient manner to large numbers of stakeholders. Furthermore, libraries can provide access to the Internet in many communities. The electronic infrastructure of the library system is likely to continue to expand as the Federal Communications Commission’s education rate or “e-rate” program subsidizes the connection of more libraries to the web.

Information about the Dialogue, background briefing materials, participants, and the archived discussion will remain available online until September 2001 at [www.network-democracy.org/epa](http://www.network-democracy.org/epa). Over 500 participants registered for the Dialogue. Prior to the Dialogue,

information about how to participate in the Dialogue, which was open to the public, was distributed by ELI, Information Renaissance and EPA to possible participants and other stakeholders. In addition, in advance of the Dialogue, nine panelists were asked to participate each day to ensure regular involvement by a core group of experts representing key perspectives on the Dialogue topics. The panelists included librarians, environmental groups, the business community, and a state and local government representative. A list of the panelists is available online at [www.network-democracy.org/epa/about/panelists/panelists.html](http://www.network-democracy.org/epa/about/panelists/panelists.html). Over the two week period of the Dialogue, approximately 161 or 31 percent of the registered participants posted messages and, in total, 701 messages were archived. The demographics of the group are available online at [www.network-democracy.org/epa/cgi-bin/info.plx](http://www.network-democracy.org/epa/cgi-bin/info.plx). The largest groups represented included librarians (28.5%), environmental organizations (15.15%), federal government agencies (11.8%), and state agencies (9.7%). In total, the web site for the Dialogue received 120,000 hits and 60,000 page views.

This report has not been reviewed by the participants in the Dialogue, due to time and resource constraints, but it will be available on the Dialogue web site for review and comment.

## **OVERVIEW OF ONLINE DIALOGUE**

### **EPA INFORMATION COLLECTION AND DISSEMINATION**

Although the primary and initial focus of the Dialogue was the use of libraries as a community resource for environmental information, during the preparations of the agenda and in the course of the Dialogue itself, it became clear that participants were interested in addressing general issues related to EPA's handling and dissemination of information, including EPA's web site as a vehicle for accessing and distributing information. As a result, the Dialogue discussion focused on two general subject areas. The first area of discussion focused on the types of information that EPA should provide and how that data should be maintained, disseminated and presented. The second focused on how public libraries and EPA could work together to provide the public with environmental information. The daily summaries of the discussion posted by Information Renaissance summarize the points made in both of the general discussion areas and are available on the Dialogue web site. In addition, an overall summary of the two week dialogue prepared by Information Renaissance is available on the web site. This summary focuses on the findings with respect to an EPA/public library collaboration. The Dialogue archives, however, could also provide a basis for further research and analysis of EPA's collection and dissemination of environmental information, independent of any activities with public libraries. For example, the types of issues and questions that were covered in the Dialogue and which may warrant further examination at a later date include:

- What types of information stakeholders need and how EPA can address their wide ranging priorities;
- How to ensure data integrity and accuracy without sacrificing data availability;
- How to fill perceived data gaps;



- How EPA can revise its web site to serve stakeholders' interests and needs more effectively, including new and improved online tools and format choices that would make the EPA web site more user friendly;
- How and whether to place EPA's paper dockets online in order to increase availability;
- Whether EPA should provide raw data alone or in addition provide interpretation of data;
- How to improve the use of list serves for disseminating environmental information;
- How to improve or develop substitutes for the Freedom of Information Act (FOIA) process for obtaining information; and
- How to improve EPA's credibility as a source of information.

In addition to identifying and discussing many challenging issues, many Dialogue participants provided suggestions and recommendations for how EPA could improve its data collection, handling and dissemination efforts. These recommendations could also serve as a basis for EPA, stakeholders and researchers to examine whether to proceed with new information-based initiatives. For example, participants discussed whether EPA should develop a national Environmental Information Action Plan that would address national, regional, state, tribal and local needs and goals. The planning effort proposed by participants included all information formats and did not focus only on the Internet or libraries. The participants also discussed a plan to bring together resources, such as web-based clearinghouses, information offices, EPA programs, and libraries, and to provide for development of new information sources. Participants also suggested that EPA fund information liaison positions at a local level to coordinate national concerns, network with local governmental agencies to create a regional action plan, and serve as expert contacts for information resources and web navigation. The resource implications of such proposals were not addressed by Dialogue participants.

### **USE OF ONLINE DIALOGUE**

The effectiveness of an online Dialogue as a means of fostering stakeholder discussion could be studied further. Although an analysis of the effectiveness of the Dialogue is beyond the scope of this project, these issues are potentially important in interpreting the discussion and evaluating its usefulness as a basis for pursuing an initiative or pilot program. Additional questions that could be addressed concern the value and efficacy of using online dialogues as a means of public participation and obtaining input from stakeholders. Issues for further study and evaluation could include:



### **Efficacy:**

- Whether the Dialogue achieved the goals of the participants;
- Whether the Dialogue achieved the research goals of ELI and Information Renaissance;
- How an online dialogue compares to other processes for gathering information from stakeholders on this topic, including meetings, interviews or notice and comment procedures, particularly in terms of allowing for interaction among participants and development of ideas and proposals;

### **Participation:**

- Whether the participants in this and other online dialogues are representative of a larger group of stakeholders or are they self-selected according to certain factors, such as level of comfort with and access to the Internet;
- Whether the use of an online dialogue raises concerns with respect to the digital divide and how these issues could be addressed, including by the use of libraries, to ensure that low-income and communities of color have access to participate in such dialogues;
- How should success of an online dialogue be measured in terms of participation. For example, 31 percent of those registered for the Dialogue participated by posting messages. According to Information Renaissance, the participation rate is typically around 10 percent of those registered.

### **Implementation:**

- Whether the Dialogue discussion adequately focused on the issues selected and whether the tools used for guiding discussion were effective, including the use of a moderator, short comment forms and daily summaries;
- Did the duration of the Dialogue and the volume and length of comments affect participation. Are there ways to make participation in an online dialogue less time consuming or should the Dialogue have been longer as some participants suggested; and
- What lessons can be learned from participants in the Dialogue about what worked and what needed improvement from a logistical and a substantive perspective.

## **KEY ISSUES WITH RESPECT TO AN EPA/ PUBLIC LIBRARY COLLABORATION**

In general, participants supported a collaboration between EPA and the public libraries to provide environmental information to the public. Participants raised many issues and concerns, however, that should be considered, including the following.

**Librarians As Environmental Information Providers:** Dialogue participants generally supported the concept of libraries as a community resource for environmental information and were interested in exploring how EPA could foster such a role. The support came both from librarians and potential library users, such as local and national environmental groups.

Although most participants recognized that much of the information needed by communities would be sought on the Internet, including EPA's web page, librarians were still viewed as having an important role. Skilled librarians were seen as having the ability to organize and access information and assist in navigating the Internet. As one commenter explained, searching the web is "unpredictable," "highly tedious," and "surely lacks the classification and order that libraries bring to information." A skilled librarian "can weed out stuff," "help sort through the junk" and locate information not available on Internet. In addition, libraries were viewed as venues for accessing the Internet, particularly in communities where home access is not commonplace.

Participants also noted that providing information about environmental issues was consistent with the role of librarians and that librarians already receive such inquiries. A participant explained that if librarians incorporate building capacity for environmental decision-making into their role definition they will "take pride in knowing how to identify whatever resources they feel they need." A participant also suggested that librarians could find out about regulatory actions that affect their community, state, or region and help inform their customers about opportunities for involvement in regulatory processes.

Participants generally viewed public libraries as more accessible than other types of libraries and well-suited for collaborating with EPA to provide environmental information. Some participants emphasized, however, the resources and willingness of academic libraries to assist community members in obtaining environmental information.

Several participants, including librarians, voiced concerns about relying too heavily on public libraries to meet community environmental information needs, given the wide range of customer demands on their time and budget constraints. At least one participant registered the view that small, rural libraries may only be able to retrieve information through inter-library loans which can take several weeks. According to the participant, in smaller communities it is easier for some individuals and organizations to get the information directly from EPA or online and, therefore, accessible and searchable databases may be more useful than libraries.

In addition, some participants were concerned about ensuring that librarians are seen as neutral information providers. Specifically, some participants noted that if librarians were to

take a pro-active role in disseminating environmental information they could raise questions about their objectivity. This was troubling to some participants from an ethical perspective, while others were concerned that librarians in small, rural libraries could be subject to funding cuts if local interest groups perceived that they were biased on environmental issues. Others did not see this as a concern and said libraries should serve as “neutral forums for communities to come to grips with controversial issues.” An environmental group participant even warned that “over-sensitivity” on the issue of neutrality could “lead to self-censorship.”

**Wide Range of Information Needs:** The Dialogue discussion mirrored ELI’s findings in *“Building Capacity to Participate in EPA Activities: A Needs Assessment”* in emphasizing the critical importance of information and how information is the foundation for public participation and empowerment of all types of stakeholders. Consistent with this theme and the traditional role of libraries, participants focused their discussion of possible EPA and public library collaborative efforts on information issues. Many variations on this theme emerged, as discussed below, but the majority of suggested approaches centered on providing online and print information to libraries.

Numerous participants expressed their environmental information needs which varied considerably from information about local issues to issues of national concern. In addition, some participants sought highly focused and detailed information about, for example, pesticide ingredients while others were more interested in information about broader environmental issues.

**Variations Among Libraries:** During the course of the Dialogue several participants emphasized the importance of recognizing that all public libraries are not the same and that in any collaborative effort these variations would have to be recognized and addressed. Participants particularly highlighted the distinctions between small, rural libraries and large, urban libraries with respect to available resources and staff, and the interests and information needs of their customers. For example, it was noted that information disseminated to libraries should be tailored to either rural or urban libraries. Because of the limitations of rural libraries, it was suggested that central libraries could be used to disseminate to smaller libraries and that postings to state library web sites or agreed upon regional sites would help rural libraries serve local needs.

**Inadequate Resources and Funding:** Many participants were concerned about library resources and whether librarians could take on new or increased responsibilities in a collaboration with EPA. Several participants expressed the need for EPA to help fund such efforts by providing grants to libraries. Others suggested ways of reducing the costs of strengthening librarians’ efforts to provide environmental information by, for example, providing training to librarians at annual meetings that they would otherwise attend. Some participants also emphasized the need to lower data acquisition costs by placing more information online.

**Digital Divide:** Representatives of Native American organizations participating in the Dialogue raised several points about their members’ use of libraries for finding environmental information, particularly if the Internet is an integral part of the effort. These participants explained that Native American communities may not be located near a library and their libraries

may lack computers. Community members may also be uncomfortable or unfamiliar with how to

use computers and the web. One Native American representative recognized, however, that in the long term the web is a valuable resource.

**Dissemination of Print Versus Electronic Documents:** The issue of whether it is necessary to make available printed copies in addition to electronic copies was discussed extensively by the participants. Several librarians voiced a need for a consistent policy on this issue. Some participants questioned whether it was adequate to rely on electronic sources and whether hard copy resources would be preserved over time or essentially disappear when web sites are updated, thereby making it difficult or impossible to obtain older materials. These concerns were voiced in part in connection with the Federal Library Depository Program which provides for government documents to be sent to designated depository libraries. Participants reported that Congress had recently taken steps that would limit the amount of print material sent to libraries under the program and instead would heavily focus on the transfer of electronic information. Another aspect of the discussion focused on the need for a “publish on demand” function that would allow libraries to print out and bind publications from the Internet for customers upon request. Some participants said this ability was critical because it would basically allow libraries to be “repositories of all publications.” The need for some access to hard copies or “multiple mediums” was also seen as a digital divide issue by some participants concerned about limiting access to information in communities that do not have easy access to the Internet. Participants also noted that it is often easier to read hard copies and refer people to page numbers. Furthermore, older computers may not be able to access electronic data, depending on the format used.

**Level of and Limits on Library Use:** Despite the fact that many participants thought that librarians could provide valuable assistance to communities in obtaining and understanding environmental information, some participants questioned whether people would actually use libraries for this purpose, particularly given how many people now have access to the Internet at home. Several participants also noted that libraries may charge for printing and may restrict computer use to short time frames, if they only have a limited number of computers and demand for them is high. This can make efficient search and navigation techniques particularly important. Others were concerned that library hours are limited and may not be convenient for customers. A thread of the discussion focused on additional venues, such as conveniently located kiosks or modified automatic bank machines, where Internet access could be provided 24 hours a day, seven days a week.

**State Information Dissemination:** Several participants recognized that states have a substantial amount of the information that communities need, particularly because many environmental programs are delegated to the states or are outside the federal government’s jurisdiction. Participants wanted, for example, to be able to obtain permits, permit applications, and permit renewal and issuance notifications online and from library archives.

**Definition of the Public:** A thread of the dialogue focused on defining the public that libraries are suppose to serve and the importance of this definition for designing an environmental information initiative. Depending on the public that will be served, information needs may vary. Some participants offered lists that included: educators, researchers, planning

commissions, schools, facility owners, environmental groups, workers, businesses, news media, and government officials.

## MODEL PROJECTS

During the course of the Dialogue, several current or completed library and related information projects were highlighted that could serve as models for new environmental information initiatives with EPA. An analysis of the programs mentioned by participants is beyond the scope of this project. The following is a list of the models mentioned by participants.

**Current EPA Efforts:** Participants highlighted several EPA library initiatives that could be expanded upon. According to participants, twenty-eight EPA libraries make EPA documents and other publications available to the public by cataloging them, making them searchable on the EPA Online Library System, and loaning them to other libraries. EPA also provides help to librarians in finding information through its online library ([www.epa.gov/natlibra](http://www.epa.gov/natlibra)). EPA runs a booth at the American Library Association's (ALA) annual conference where it distributes CD ROMS with environmental software, brochures, and posters. EPA is also updating a bibliography of the most helpful resources in the environmental field that will be available early in the year, according to a participant. The need to make libraries aware of EPA's outreach work was noted by participants.

**Library Association Programs:** As discussed in more detail below, the ALA Task Force on the Environment and the Special Libraries Association's Environment and Resource Management Division hold technical programs, discussion groups, panel presentations, tours of EPA libraries, and workshops at their annual meetings. In addition, ALA's Libraries Build Sustainable Communities Initiative, a two year partnership between ALA and Global Learning, Inc. with support from the Development Education Program, US Agency for International Development, educates membership of the ALA, and subsequently the library going public, about linkages between sustainability issues in local communities and the global community, as well as about options for creatively engaging these issues. Efforts include creating and disseminating a guidebook to all ALA members, publishing articles in ALA publications, issuing press releases, training ALA members to conduct workshops in every state, and creating a sustainable communities discussion list serve for workshop participants. See [www.ala.org/sustainablecommunities](http://www.ala.org/sustainablecommunities); [www.globallearningnj.org](http://www.globallearningnj.org).

**National Libraries of Medicine (NLM)/Medline:** A participant reported that the National Libraries of Medicine are currently reaching out to public libraries to encourage collaboration in sharing health care information appropriate for consumers interested in environmental health information. NLM provides databases online free of charge, including Medline, a searchable database cited by several participants as a model database. See [nlm.nih.gov/databases/databases\\_medline.html](http://nlm.nih.gov/databases/databases_medline.html).

**Boulder Area Sustainability Information Network (BASIN) Project** The BASIN project is funded under EPA's EMPACT grant pilot program. The project uses the web to

provide public access to background information about local and regional environmental systems,

particularly water-related systems. The project involves multiple stakeholders in providing online environmental information on water resources. See [www.basin.org](http://www.basin.org).

**Mohawk Library Association/Resources for Economic Viability in Sustainable Agriculture Initiative:** This study circle project of the Mohawk Library Association, a cooperative public library system serving several counties in New York State, is funded by a federal Library Services and Technology Act grant. The project provides information and resources to small farmers about agricultural practices and systems that are economically, ecologically, and socially viable, most notably through the use of study circles. The goal is to provide tools to farmers that will extend their earning power by using methods that are low input in terms of cost and risk, innovative, and environmentally sound. In addition to farmer-to-farmer study circles, the project included workshops, and off-site demonstrations and displays. The project also purchased books, CD ROMs, videos, and periodicals, created a web site with over 150 links to information sources on sustainable agriculture, and developed a web-based database of local agricultural service providers. See [www.mvla.org/revsa/index.html](http://www.mvla.org/revsa/index.html).

**National Library for the Environment:** The project, sponsored by the National Council for Science and the Environment, provides environmental information online. Over 700 Congressional Research Service reports, daily environmental news from numerous publications, over 300 environmental journals, and local environmental information are available on the web site. See [www.cnie.org](http://www.cnie.org).

**Newburgh Free Library/Hudson River Project** The project is a collaborative information initiative between the Newburgh Free Library in Orange County, New York and the New York State Department of Environmental Conservation. The program compiles resources on the Hudson River Estuary and disseminates them on the Internet. The project provides a road map to resources, as opposed to providing all the information online. See [www.newburghlibrary.org/hrrc.htm](http://www.newburghlibrary.org/hrrc.htm).

**Small Quantity Hazardous Waste Generator Initiative:** A participant reported on an initiative funded by EPA Region 2 in the late 1980s that helped the regulated community comply with new regulations for small quantity hazardous waste generators. The Center for Governmental Information in Rochester, New York put together workshops and maintained print resources for the small quantity generator community. Librarians also helped generators fill out forms working with EPA Region 2 and the New York State Department of Environmental Conservation.

**City of San Diego Environmental Services Department Partnership with Public Library System:** A participant reported on a partnership between the City of San Diego Environmental Services Department and the public library system. The partnership developed a special library branch devoted to environmental issues with the purpose of disseminating environmental information to the public as well as supporting professionals working in the environmental field, according to the participant. The collection is catalogued in the public library database and materials are checked out with a public library card. The partnership also provides environmental education and hosts community forums with environmentalists. See [www.sannet.gov/environmental-services](http://www.sannet.gov/environmental-services).



**California Digital Library (CDL):** CDL is a collaborative effort of ten University of California campuses. Several CDL projects focus on collaboration with other California universities and organizations to create and extend access to digital material to University of California partners and to the public at large. Participants cited the CDL's environmental information web page which provides a subject matter index that allows users to click on an environmental topic that in turn provides links. See [www.cdlib.org/about/faq](http://www.cdlib.org/about/faq).

## **SUGGESTED INITIATIVES OR PILOT APPROACHES**

Suggestions for how libraries and EPA could collaborate varied considerably from ambitious, large-in-scope projects to smaller, more limited suggestions. The need for EPA funding and, in general, resource constraints were a repeated theme. Several suggestions for initiatives focused primarily on improvements to EPA's web site and information dissemination efforts on the theory that libraries primarily need access to EPA information via the Internet in order to serve communities. In general, however, there was considerable interest in pursuing collaborative efforts between EPA and the public libraries. Several library participants volunteered to discuss with EPA working on possible pilot projects. The following is an outline of participants' suggestions.

**Provide Training and Tutorials for Librarians:** Several participants discussed the need for training to assist librarians in using the Internet for obtaining environmental information, for navigating EPA's web site, and for using CD ROMS. Suggestions varied in terms of size and scope. Some suggested training local librarians to locate information that is of importance to particular communities because local, current information, such as information about the effects of a local highway project, is often difficult to find. Similarly, it was suggested that libraries receive advance notice and briefings on information and resources related to upcoming local hot topics. Resource concerns were cited as problematic, particularly if the training is not funded by EPA, but also in terms of the time it would take to attend such training. It was suggested that providing training at meetings that librarians attend on a regular basis, such as state library association meetings, could conserve time and costs. It was suggested that packaging training as continuing education, or even requiring continuing education to maintain certifications, could help encourage participation in such training programs.

**Increase EPA Outreach:** It was suggested that, in general, EPA should reach out to city and county libraries more than it currently does. For example, it should inform libraries of current research, suggest libraries as partners in requests for proposals, particularly with respect to EPA EMPACT grants, attend conferences that librarians attend, and list documents by category with regional contacts that can be called for additional information.

**Develop Library-Sponsored Workshops, Lectures, Awards, and Education Programs:** Participants suggested several initiatives that libraries could sponsor that would promote dissemination of environmental information and build partnerships with communities. These included conducting workshops on specific environmental issues, hosting lectures, briefings and focus groups, recognizing community achievement in the environmental area, and providing book reviews. It was also suggested that librarians take laptops "on the road" to

community meeting places when possible.

**Consolidate Clearinghouses Funded by EPA/Develop National Database:**

Consistent with a theme voiced by several participants, it was suggested that EPA should consolidate the many sources of information or clearinghouses it funds and combine them into a single source of information that could be easily accessed by librarians. Several models were offered, including the World Data Center of the National Academy of Sciences, the Natural Biological Information Infrastructure and the National Library of the Environment of the National Council for Science and the Environment. The Institute of Museum and Library Services was suggested as a possible partner in such a venture. According to a participant, EPA should consider the infrastructure that has already developed around libraries, consolidate the best clearinghouses, and then integrate them into the libraries' infrastructure. It was also noted that EPA should at least include on its web site links to all clearinghouses.

**Enhance Interlibrary Loan Programs:** Several participants mentioned the importance of making documents available to the public even if copies can not be stored in every library. They emphasized interlibrary loan programs as one way to achieve this goal and pointed out that EPA already does this with its publications through the EPA libraries. On a related point, it was suggested, as noted earlier, that central libraries could be used to disseminate information to smaller, subsidiary libraries.

**Increase Cataloguing of EPA documents:** Several librarians noted that EPA should catalogue all of its documents, both print and electronic, and make the catalogue available using international metadata standard Z39.50, which allows compliant browsers to search multiple catalogues and databases. Thus, libraries could search their collections and these resources from their catalogue software.

**Establish Issue Collections and Repositories for Community Groups:** Participants noted that libraries can house repositories of information for community groups, such as Clean Air Act permits and Superfund records, so that the larger community can access the documents easily. Furthermore, "issue collections" tailored to specific community needs could provide an important service, according to some participants.

**Fund Guides and Other Materials:** The need for EPA to assist library efforts to provide environmental information was emphasized by many participants. A specific suggestion was for EPA to fund online and print guides, such as the third edition of the Environmentalist's Guide to the Public Libraries, by Public Libraries for the Future, that would assist librarians in responding to community needs.

**Provide "Publish on Demand" Capability:** As noted above, some participants said it was important that libraries be able to obtain print copies of certain documents in order to serve their communities' information requests. A key suggestion in this regard was to make available a publish on demand feature so libraries can print and bind documents. A participant suggested the government could make every document available electronically and libraries could print them out locally. Costs could be billed to the government for documents that the government would provide free. For documents not available free from the government, libraries could pay

for documents they retain in their collections and customers could pay for documents they keep.

**Provide Real Time Reference Assistance:** A participant suggested that one way librarians can add value to communities' searches for material on the Internet is to provide a feature that allows the customer to click for real time reference help with a research problem. The reference click could, for example, be directed to a local library. In addition, EPA librarians could review and respond to email inquiries. It was also suggested that EPA could establish a hot line program staffed by researchers that could send information to libraries for pickup.

**Increase Use of List Serves:** Several participants noted the usefulness of list serves in sharing information, particularly about EPA activities. It was suggested that not only should librarians subscribe to EPA list serves but EPA should subscribe to library list serves.

**Use Key Identifiers:** Participants suggested that EPA use of key identifiers for organizing information, such as by facility, location, and substance, would facilitate the public's and librarians' ability to obtain needed information.

**Establish Linking Library Systems:** Several librarians suggested that EPA's online library should link to regional library systems that the public libraries use for searches and that is Z39.50 compliant, as discussed above. Another suggested a pilot program that creates a network of federal, state, and academic environmental libraries that share resources in a particular EPA region, by making members' catalogues, loans, and reference services available to members and public libraries.

**Provide Display and Work Areas, Meeting Rooms, and Repositories:** Participants suggested that libraries can assist communities in obtaining environmental information by providing meeting rooms and work areas, as well as by housing repositories of information on specific issues or sites. A participant suggested that displays on environmental issues or about a local hot topic with access to all sides of the issues and information about how to get involved would be helpful.

**Increase Computer Donations:** It was proposed that, as a means of increasing Internet access, EPA could donate its surplus computers to libraries in communities that are lacking them and have environmental problems. A participant suggested that the computers could be configured in advance with environmental book mark pages that could be automatically updated from the web.

**Increase Dissemination of Grey Literature and Historical Guidance and Policy Documents:** Several librarians noted the need for reports and publications (so-called "grey literature" that is not formally catalogued) by environmental and other groups. They emphasized that this information is difficult to obtain but potentially very useful to customers, and suggested that environmental groups send such materials to libraries on a regular basis. In addition, an EPA representative stated that the agency is in the process of placing historical guidance and policy documents online. At present, librarians may find it difficult or impossible to obtain these materials for their customers.

**Collaborate with and Fund Library Associations:** Several participants emphasized that EPA should work with established library and related organizations. Some of these organizations were established for the purpose of fostering librarians' efforts to provide environmental information, while others have missions that could accommodate EPA efforts to increase the flow of information to public libraries. A few participants suggested that instead of establishing a new initiative between EPA and the libraries, EPA should simply fund ALA efforts to assist librarians in disseminating environmental information to communities. ALA was recommended in part because it already has an established network and has conducted similar initiatives, such as its Libraries Build Sustainable Communities Initiative. EPA's role would be to provide funding and the raw data that libraries could use. Participants mentioned the following library groups:

**American Library Association, Task Force on the Environment (TFOE):**

TFOE promotes awareness of environmental issues for ALA members and facilitates networking among peers. Key issues include acid rain, global warming, and lead poisoning prevention. TFOE works closely with the EPA Library Network and uses EPA librarians as speakers at TFOE programs at ALA annual meetings. EPA Regional and Headquarters libraries have served as meeting places for EPA-TFOE discussions, database demonstrations, library tours, and Internet site reviews. A participant noted the value of a publication entitled "A Place at the Table: Participating in Community Building," published in conjunction with the ALA theme of building on sustainable communities, that provides examples of librarians going into communities to listen to needs and building partnerships with community organizations and government agencies. See [www.ala.org/alaorg/rtables/srrt/tfoe/index/html#objectives](http://www.ala.org/alaorg/rtables/srrt/tfoe/index/html#objectives).

**Environment and Resources Management Division, Special Libraries**

**Association:** The Division, established in 1989, is dedicated to disseminating information to support researchers and practitioners in the fields of natural resources management and environmental studies. Topics of interest include environmental regulation and policy issues. See [www.wco.com/rteeter/ermd/ermd.html](http://www.wco.com/rteeter/ermd/ermd.html).

**National Commission on Libraries and Information Sciences:**

The Commission is a permanent independent agency of the federal government that advises the executive and legislative branches on national library information policies and plans. The Commission also advises the Institute for Museum and Library Services on general policies with respect to the duties, powers, and authority of the Institute relating to library services. See [www.nclis.gov](http://www.nclis.gov).

**Institute for Museum and Library Services:** The Institute is an independent federal grant making agency that works with the National Commission on Libraries and Information Services. The Institute supports and funds all types of libraries, including public libraries, by investing federal funds to enhance their resources and ensure broad access to information. See [www.ims.gov](http://www.ims.gov).



## CONCLUSIONS AND NEXT STEPS

The online Dialogue produced a wealth of comments and information about the role of libraries in providing communities with environmental information. It is beyond the scope of this particular project to evaluate and make recommendations about the many proposals and suggestions offered during the course of the Dialogue and, in any event, most of the proposals would need considerable fleshing out and further stakeholder discussion to be assessed adequately. Although EPA, the public libraries, and interested stakeholders should continue to explore ways to enhance the information and tools available to libraries so that libraries can provide environmental information to communities, many issues will need to be further examined before an optimal approach can be developed. Among the key issues to address are resource constraints, the wide range of community information needs, the role of the states in providing information to libraries, the level of library use by the public, digital divide concerns, and the various options for partnerships.

It does seem clear, however, that further exploration of possible collaborative efforts between EPA and the public libraries is warranted, given the level of interest among a wide range of stakeholders that includes both librarians and potential library customers. Any further steps to develop proposals for moving forward should broaden the parties involved to increase representation of groups that may have been under represented in the Dialogue, such as members of the environmental justice community, business sector, and states. While further online discussion may be valuable, particularly for communicating with the Dialogue participants, it will also be important to use other means of gaining public input to ensure that those without Internet access, or who are unfamiliar or uncomfortable using it, are able to contribute.

Several participants offered support for participating in pilot programs to develop collaborative efforts. While pilots have been used by EPA successfully in the past for testing new ideas and allow for working with organizations as diverse as public libraries where a single approach may not be appropriate, a more comprehensive national level initiative should not be ruled out. A key reason for exploring the potential role of libraries in providing environmental information to communities is the extensive infrastructure that is already in place. While libraries clearly vary considerably in their customer bases, resources, and interests, the commonality among libraries in the services they provide, their customers' needs, and the national associations they share also make a national level initiative worth considering.

In sum, the Dialogue provides EPA, public libraries, and stakeholders with a strong basis and plethora of ideas for moving forward to work together in designing an initiative or pilot programs for increasing the role of public libraries in providing environmental information to communities. The Dialogue archives also provide valuable suggestions for EPA and stakeholders to work with in improving EPA's information collection, storage and dissemination.

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