



**Tools & Technologies
for Environmental
Decision Makers
in the 21st Century**

The Report of the
Tools and Technology Subcommittee

Local Government Advisory Committee
Office of the Administrator
United States Environmental Protection Agency

**THE REPORT
OF THE
TOOLS AND TECHNOLOGIES
SUBCOMMITTEE**

***RECOMMENDATIONS TO THE
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AND TO THE STATES FOR IMPROVED
LOCAL GOVERNMENT ENVIRONMENTAL DECISION MAKING:
NEW PARTNERSHIPS FOR THE TWENTY FIRST CENTURY.***

**LOCAL GOVERNMENT ADVISORY COMMITTEE
OFFICE OF THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

TOOLS AND TECHNOLOGIES SUBCOMMITTEE REPORT

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I. EXECUTIVE SUMMARY

The Tools and Technologies Subcommittee of the Local Government Advisory Committee was created to **explore** ways in which current and emerging technologies could be better utilized to maximize environmental **decisionmaking** and outcomes. Optimizing environmental decisions is important because environmental expenditures are a significant and increasing part of budgets at all levels of government. The public needs assurances that taxpayer dollars used to protect the environment are being spent in the most cost effective and beneficial manner.

The Subcommittee determined that there were four critical areas of concern which are discussed in greater detail in the body of this report and are presented in summary below:

COMMUNICATIONS

There is a pressing need for better communication between and among all levels of government both internally (federal, state and local), and with government and its citizens on environmental issues.

Recommendations:

The EPA should seek an executive **order designating** it as the lead federal entity coordinating federal environmental policies, programs and issues.

- Develop an **inventory/catalog** of existing federal information and local government contacts and provide it to local decisionmakers in **print/electronic** format on a timely and updated basis.

EDUCATION

There is a lack of education and training for local government officials and the public regarding environmental issues. Expanded training opportunities are needed to educate citizens and local officials about new and existing federal programs and assistance.

Recommendations:

Inventory existing training/educational opportunities for local officials.

Provide on an annual basis, the opportunity for local governments to meet at the state level with EPA to receive information, education and training regarding new initiatives and assistance.

INFORMATION

A great deal of environmental information is available, but it is not always easy to access or prioritize the information considered most valuable at the local level, **i.e.**, information that fosters community level environmental planning.

Recommendation:

Develop a framework for the EPA and the states for community based environmental planning involving all **local** stakeholders in the design and implementation of a local environmental plan.

RESOURCES

Local governments bear the greatest financial responsibility for implementing federal and state environmental mandates.

Recommendation:

Provide local governments with better information about federal and state resources currently available to assist with **planning/program** implementation, **including innovative** financial tools developed by other local governments.

RULEMAKING

Currently, no method exists to monitor the implementation of LGAC reports and recommendations.

Recommendation:

The EPA should issue an annual report updating the status of implementing the recommendations of advisory committee recommendations. This effort should begin with the status of the recommendations of the Rulemaking report.

While the scope of this report is broad, the Tools and Technologies Subcommittee members believe that its implementation would result in better environmental decision making at all levels of government.

II. PREFACE

The Local Government Advisory Committee is charged with **providing** the Administrator of the U.S. EPA with advice and recommendations regarding the implementation of Federal environmental requirements by local governmental organizations. The Committee's charter specifically states that the LGAC will have responsibility for recommending, "... changes in the regulatory planning and development process to involve local governments more effectively; changes needed to allow flexibility to accommodate local needs without compromising environmental performance, accountability, or fairness; and ways EPA and states can help local governments strengthen their capacity to promote environmental quality. The Committee may recommend projects to help local governments deal with the challenge **of financing** environmental protection, identify new ways to encourage innovation by local governments, and explore ways to speed dissemination of new environmental protection techniques and technologies among local governments."

In 1996, the LGAC created the Tools and Technologies Subcommittee to explore what types of tools were currently available to local environmental decisionmakers, and what **additional** tools might be useful and necessary. The Subcommittee met throughout 1996 and 1997 to develop the findings and recommendations contained in this report. We believe the report offers many constructive recommendations for change which, if implemented, will result in enhanced capacity for improved environmental decisionmaking at the local level, and better promulgation of federal environmental initiatives.

Several LGAC members deserve special recognition for the development of The Report of the Tools and Technologies **Subcommittee**: Sara Bost, **Jack** Kenny, Rueben **Miller**, Jocelyn Mills, Susan Mudd, Francois Narce-Bernard, Gary Paxton, Amy Swam, Rosemary Tierney and Dick Zais. In addition, EPA staff Denise Ney and Mark **Flory** provided technical assistance and support. Valuable ideas and insights were provided by former Assistant Administrator Shelly Metzenbaum. Randy Ftanke, as chair of the **LGAC**, oversaw the timetable and final product.

We wish to thank all the Committee members and staff for their efforts.

Lillian Kawasaki, Co-Chair
Tools & Technologies
Subcommittee

Bill **Anderson**, Co-Chair
Tools & Technologies
Subcommittee

M. INTRODUCTION

We are about to enter a new era of environmental protection. Traditional federal **regulatory** command and control models have achieved much in terms of controlling point sources of pollution, largely industrial in nature. Our air and water are cleaner than in decades past. These regulatory successes have left us with a much more difficult task left to do - developing and delivering tools and technologies that help us deal with countless small businesses, farms, homes, cars and other **nonpoint/area** and mobile sources of pollution.

While they are not dealt with at length within the body of this report, there are several new initiatives and perspectives that will provide us with important conceptual tools for protecting and enhancing the environment in the coming century. In many cases, these new tools represent a departure from past practices and ways of **thinking** about ourselves, how we **relate** to our broader environment and how best to protect it.

Ecosystems management provides a holistic context from within which to evaluate environmental policies and impacts. Our environment is the result an enormously complex interaction of soils, hydrologic and climactic regimes that determine, to a considerable degree, plant, animal and human communities. An ecosystem perspective provides us with the open systems model we need to comprehensively predict and plan for the impact of our actions and policies. Ecosystems management necessitates a multimedia perspective that recognizes the essential interdependence and interconnectedness of air, water and land.

Human communities are an integral part of ecosystems and it is at the community and regional levels that environmental planning and protection must take **place**. Community based environmental planning and protection represents a grassroots, bottoms-up way of approaching environmental protection that challenges traditional governmental bureaucracy. It empowers citizens to recognize their stewardship responsibilities and build organizational capacity at the local level where all environmental problems must ultimately be resolved. Community based environmental planning and protection also recognizes the need to acknowledge the importance of a continuing dialogue over issues of environmental justice and equity.

Pollution prevention, source reduction and resource conservation needs to evolve in the Twenty First Century. Human communities and ecosystems are best protected by pollutants **through prevention, eliminating** the need to deal with the consequences of exposure. Pollution prevention makes ecologic and economic sense. Enhancing the management of community ecosystems coupled with pollution prevention tools and technologies, provides us with better leverage to **protect** and enhance the environment.

These various concepts are powerful tools for **meeting** the environmental challenges of the future. This report also details specific recommendations in the areas of communication, education, planning and resources that would require a federal investment to build real capacity at the local level.

Partnerships are key to **creating** a new paradigm of cooperation between all levels of government, businesses, advocacy groups, communities and citizens. The prospect is for a healthier, sustainable environment and a more **efficient**, productive economy.

IV. COMMUNICATIONS: FINDINGS

In the past, local governments have felt that they have to often been left out of the federal environmental decision-making process. This lack of dialogue, real or perceived, has hindered the development and implementation of **environmental** initiatives at the local level. Local governments grapple with multiple federal entities with differing priorities, requirements and timelines, and infrequently see or hear from federal agencies or departments, except in the case of problems or crisis.

Local governments also need to communicate amongst themselves about environmental issues to a greater degree than currently occurs. The EPA should facilitate this networking at the state **and/or** regional level, whether through conferences or print and electronic communication.

EPA's greatest resource is the American people and **their** strong desire for a clean and safe environment. The EPA should place a priority on designing an interactive public **information/education** plan to communicate with the American public.

RECOMMENDATIONS :

1. The EPA should **continue** its role as the collector and distributor of environmental data to all levels of government as needed and to the general public. It is vital that this information should be **made** user-friendly and easily accessible to a wide range of potential users. A comprehensive **inventory** of available information of use to local governments should be regularly updated in print and electronic formats.
2. The EPA should consider establishing Public Information Centers (PIC) in each of the Regions. The Centers would serve as the point of contact for local governments to request data, technical assistance (mapping, indicator species, grants), and to facilitate local issues. The EPA should continue to provide informational and educational publications in both written and electronic formats (software, CD-ROMs, etc.) for local governments and the general public.
- 3: The EPA should define and encourage community based environmental protection (CBEP) at all levels and in all divisions of the agency emphasizing people skills and outreach techniques. Once defined, CBEP oriented training should be offered to state and regional regulatory bodies.
 - ◆ The EPA in conjunction with local and state governments, should develop a handbook on CBEP aimed at **local** government officials. This handbook should catalog EPA publications, databases, electronic **media and** links to similar information and materials available **from** other federal agencies.
4. The EPA should provide personnel through the Intergovernmental Personnel Act (**IPA**) to assist the states in providing technical assistance, information and **decision-making** tools to local governments and communities that will fit their needs.
5. Local governments should receive training on what environmental information is available and how to access it. EPA, through **PICs** or state government, should **provide** practical training on the Internet, World Wide Web and Geographic Information Systems (**GIS**) as well as more traditional data sources.
6. The EPA should explore the feasibility of an executive order designating the agency to coordinate among federal departments and agencies where multiple entities are involved with one local jurisdiction on a particular environmental project or issue. There should be one stop shopping for **local** governments.

V. EDUCATION: FINDINGS

There is a need for additional education and training at the local government level. The Subcommittee defined education and training in broad terms as those ongoing efforts intended to build local capacity to implement environmental protection. There is a need to educate about fundamental terms, issues and concepts. Improved education and training will result in better implementation of programs and full utilization of existing technologies and resources. Educating local governments about existing and proposed EPA programs and regulations also assures greater acceptance of those programs and allows local governments an opportunity to recommend changes to improve program functions. While this report emphasizes the need for education and training about federal initiatives for local environmental decision makers, elected officials and **staff**, there is additional need for outreach to non-governmental and community organizations.

Training in new and emerging information technologies is another pressing need at the local level. A wealth of environmental information is available on the Internet and via **CD ROM**, but local governments need to know how and where to look in order to **fully** utilize it. Geographic **Information** Systems are another **important** new technology that holds great promise for environmental analysis and management but, again, local governments need to know how to access federal databases, and many need training in the basics of **GIS** design and implementation.

It is important to recognize that there is a wide range of skills at the local level in terms of **information** technology, and many smaller towns and rural areas do not have the resources necessary to fully utilize new technologies. For that reason, it is important to recognize that different capacities necessitate different training and educational opportunities. In the foreseeable future, the EPA will need to rely on both print and electronic media.

While education has not traditionally been part of the regulatory mission of the EPA, it is not difficult to imagine a future scenario where education becomes an important tool to move beyond simple compliance and towards a more sustainable future.

RECOMMENDATIONS:

1. The Regional Offices should be responsible for annual meetings with local governments, organized on a regional or individual state by state basis. The principal purpose of these annual meetings would be educational: to inform local governments about new initiatives and **provide** training opportunities to local officials and staff. At least once a year, the regions, states, counties, cities and towns should convene to **learn** from one another.
2. **An** inventory should be conducted of training and educational programs currently available, and additional emphasis placed on future budgets to provide such programs for local government officials and **staff**.
3. Several regional offices are to be commended for the liaison positions that many have created with individual states. The critical functions performed by these positions should be **recognized**, emphasized and expanded by the EPA. There should be at least 1 FTE in each region responsible for local government liaison. EPA **headquarters** should create a Local Government Desk to provide outreach and assistance to local governments.
4. The regional offices should perform more educational activities targeted at local governments, at a minimum this should involve a regular **newsletter** informing local governments of new initiatives, assistance, training and educational opportunities.

VI. INFORMATION: FINDINGS

Information is important to the extent that it informs community environmental planning efforts. It is at the community level that environmental problems and opportunities are identified, strategies developed and resources marshaled. Gathering and managing **information** is **central** to the success of this local environmental decision making process, since communities can often feel adrift in a veritable sea of information, unable to chart a course as a result of the vast data before them. We do live in an era of information overload, so much data 'is **there**', it makes even deciding what to look for difficult.

Community environmental plans provide local governments with a method for prioritizing, goal setting and consensus building. This focused **effort** provides a methodology for identifying what types of environmental information is needed by a community. Information must be tailored to the particular needs of individual communities since communities confront such a wide variety of issues and problems. Community environmental planning recognizes the inherent wisdom in the phrase, "Think globally and act locally." It is at the local and regional levels that environmental problems originate and must be resolved. The cumulative impact of communities acting to accomplish positive change results in a better national environment. A bottom-up approach **is** ultimately the **most** realistic and productive. Community environmental planning serves to empower local governments and citizens to assume stewardship responsibilities. Successful community planning involves engaging all the stakeholders, including citizens, nonprofits and the private and public sectors, in an ongoing community dialogue over their environmental future.

The EPA has a central role to play in collecting and **disseminating** environmental **information**, providing useful research and analysis to local governments as they plan for protecting and enhancing their environments.

RECOMMENDATIONS :

1. The EPA should encourage regions and states to promote the idea of comprehensive community environmental planning. EPA should develop a model partnership agreement that outlines the commitment of the parties to a clean, safe environment and details a general environmental planning process to be undertaken.
2. The EPA should develop a training program for **environmental** planning facilitators which could be used at the regional, state or community level. Facilitators would be responsible for guiding communities through visioning processes and **would** provide other technical assistance in crafting and implementing an environmental plan.
3. The EPA should gather examples of community environmental planning processes and plans, and make these available **to local** governments interested in undertaking this effort through the proposed Public Information Center.

VII. RESOURCES: FINDINGS

Local governments are increasingly being asked to do **more** with fewer resources. The long-term fiscal outlook for governments at all levels involves prioritizing, streamlining and greater **efficiencies**. Additionally, local governments must address increasingly pressing issues of public safety, health, welfare and economic development as devolution continues. All of **these** priorities compete with the environment for too few local dollars.

The costs of obtaining compliance with EPA regulations and implementation of Federal environmental protection laws is substantial. While Federal grants and loans are an essential financial resource, they are inadequate to achieve nation-wide objectives. The burden of financing environmental protection is increasingly borne by state and local governments with many lacking the capability, capacity, knowledge and sophistication to analyze and access all of the potential resource options available for funding environmental programs.

RECOMMENDATIONS:

1. The EPA should establish a Technical Financial Advisory Board within each region. Membership could include EPA staff and representatives from each state agency responsible for carrying out environmental programs, including members from local government and the Government Finance Officers Association (GFOA) who are knowledgeable and experienced in financial planning and analysis. Such a group would provide a valuable resource in identifying and suggesting comprehensive financial options and mechanisms to local governments which are available and legal within each state.
2. Each EPA region and Technical Financial Advisory Board should hold at least one workshop yearly to provide local governments with the latest information, funding options and guidelines for financing environmental programs and mandates. This workshop could be held in conjunction with each State's annual municipal league and county association convention.
3. The existing EPA information and reports on local government options and tools for financing environmental programs noted above should be summarized and indexed in a brief handbook (a maximum of 10 pages) and disseminated as follows:
 - ◆ A one page letter describing the handbook and financial resource tools available should be sent to (a) all state and local governments in the United States, (b) the Government Finance Officers Association, (c) International City Management Association, (d) National League of Cities, (e) U.S. Conference of Mayors, (f) National Association of Counties and other public interest groups to advise them of the availability of this financial resource information.
 - ◆ A copy of the Financial Handbook should be distributed to any agency or organization that requests a copy and also be displayed on the EPA's State and Local website on the Internet.
4. The EPA should develop a 30 minute video and CD ROM on financial resources which includes examples of alternative local government financing options which have been implemented elsewhere in the country to pay for environmental protection programs and projects.
5. Each EPA region should issue at least one annual Financial Resource Bulletin to state agencies, local government jurisdictions and other local public interest groups as noted in #3 above. The bulletin would be similar to EPA enforcement notices and include: a status report on the Federal budget and funding for all environmental programs within EPA; any changes in the status of new grants or loans for local governments available within each region and state revolving loan programs, updating any new innovative financial funding strategies for local government; and notifying state and local governments of any changes in eligibility to qualify for loans and grants from EPA.
6. The EPA should increase direct grants to local governments to implement environmental programs. EPA should implement efforts similar to brownfields grants to fund watershed protection and air toxics reductions. The EPA should also explore various incentive mechanisms, such as tax credits, as tools for encouraging compliance.

VIII. RULE-MAKING REVISITED: FINDINGS

The recommendations made in the Rule-Making report prepared by the LGAC within the last two years **should** be revisited to ensure that the report's recommendations are being implemented.

RECOMMENDATIONS:

1. **EPA** should provide a annual status report to the LGAC on **any** progress made in implementing the Committee's recommendations as well as any other Rule-Making Reinvention initiatives developed by the agency.
2. **EPA** should issue an annual brief bulletin (by direct mail **and** the Internet **website**) on agency **Rule-Making** to each state and local governmental jurisdiction, state **municipal** leagues and all major public interest **groups**. The content of the bulletin should address any new or significant changes in the Rule-Making **process/appeals** and implementation of the actions recommended by the **LGAC**.
3. **EPA** should institute similar status reports for other Committee recommendations.

IX. CONCLUSION

We are about to enter a new century and a new era in environmental protection. The past thirty years of command and control regulatory policy have brought about significant improvements in the quality of our air, water and soils. In order to go beyond compliance and build upon this history of success, we will require new tools, technologies and partnerships.

The recommendations contained in this Report share a common goal - building capacity in communities to protect and enhance their environments. This challenge is daunting considering the number of communities that need assistance in many forms. However, it is the only approach which offers long-term hope for successfully dealing with the threats to a sustainable environment. How we, as individuals in communities, live, work and play, ultimately determines the quality of our environment. It is the cumulative impacts of millions of individual decisions that we must deal with in the Twenty First Century. Only by educating and communicating at the community level will we be able to consciously design communities that enhance, rather than degrade, natural systems.

This effort at creating a community environmental stewardship ethic will require new **partnerships** between government at all levels - local, state and **federal**. Traditional hierarchical notions must be replaced with a more collaborative model that recognizes the strengths each partner brings to the process. Cooperation **must** be the hallmark of intergovernmental relations in the **future** because it will take the energies of all governments working together to achieve progress and common goals.

The Report of the Tools and Technologies Subcommittee of the Local Government Advisory Committee suggests steps which ought be taken to better prepare ourselves for a new century where the pace of change will be ever accelerating. New tools are needed for a new century: **new ways** of managing information; new methods of communication; new types of education; new resources **and** new ways of thinking about our place in the environment; our responsibility to the planet and to future generations.