



United States
Environmental Protection
Agency

Office of Policy,
Economics, and
Innovation (1801)

EPA-100-R-00-040
January 2001
www.epa.gov/stakeholders

Stakeholder Involvement & Public Participation at the U.S. EPA

***Lessons Learned, Barriers, &
Innovative Approaches***

January 2001

Table of Contents

EXECUTIVE SUMMARY	iii
INTRODUCTION	1
LESSONS LEARNED IN STAKEHOLDER INVOLVEMENT & PUBLIC PARTICIPATION	
<i>Establishing Trust Is Integral</i>	4
<i>Credible Data and Technical Assistance Can Be Critical</i>	5
<i>Recognize the Links Between Environmental, Economic and Social Concerns</i>	5
<i>Successful Stakeholder Involvement and Public Participation Activities Require That Agency Staff Receive Training or Expert Assistance</i>	6
<i>Several Factors May Limit Participation</i>	7
<i>Lessons Learned in Multi-Stakeholder Negotiation</i>	7
<i>Lessons Learned in Partnerships</i>	8
<i>Lessons Learned in Community Outreach</i>	9
<i>Lessons Learned in Public Participation in Agency Decisions</i>	10
<i>Lessons Learned in Capacity Building</i>	11
UNIQUE BARRIERS TO EFFECTIVE STAKEHOLDER INVOLVEMENT AND PUBLIC PARTICIPATION	
<i>Numerous Stakeholders, Complex Issues</i>	12
<i>Defining EPA's Role in Multi-Stakeholder Negotiation</i>	13
<i>Complexity in Place-Based Projects</i>	14
INNOVATIVE APPROACHES TO STAKEHOLDER INVOLVEMENT & PUBLIC PARTICIPATION	
<i>Ensuring Meaningful Public Input (1995)</i>	16
<i>Building Capacity (1996)</i>	17
<i>Building Capacity (1997)</i>	18
<i>Using Technology to Improve Stakeholder Involvement (1997)</i>	19
<i>Performing Outreach (1999)</i>	21
CONCLUDING REMARKS	22
ENDNOTES	24
LIST OF EVALUATIONS AND REPORTS	28

Project Manager: Eric Marsh

Evaluation Support Division

Office of Environmental Policy Innovation

Office of Policy, Economics, and Innovation

U. S. Environmental Protection Agency

This page intentionally left blank

Executive Summary

In the 1990s, EPA increased its efforts to involve the public by giving citizens, industry, environmental groups, and academics a much greater opportunity to play key roles in environmental decision-making. Today, EPA is continuing this tradition by initiating and supporting a vast array of stakeholder involvement and public participation initiatives well-beyond the scope of what was originally in place when the Agency opened for business in 1970. Due to the diversity and extensive number of Agency initiatives involving the public, however, much of the wisdom and experience gained by EPA staff implementing these efforts can be lost from one activity to the next, making it difficult for the rest of the Agency to benefit. Staff performing outreach and leading stakeholder involvement and public participation activities in one office may have limited interaction with staff performing similar types of work in other offices. In addition, Agency reviews of stakeholder involvement and public participation tend to focus on single initiatives and preclude Agency staff from benefitting from a broader perspective of EPA's public involvement activities.

With this report, the Office of Environmental Policy Innovation (OEPI) has taken a fresh look at Agency efforts to involve the public by reviewing formal evaluations and informal summaries from across the Agency that identify, describe, and/or evaluate Agency stakeholder involvement and public participation activities. Based upon our review, we identify key cross-cutting lessons learned, pinpoint unique barriers and ways to overcome them, and highlight innovative approaches to stakeholder involvement and public participation. *This report is informed by Agency evaluations and reviews and is written for Agency staff and EPA's co-regulators. As such, it will be a valuable tool for staff who are (1) considering new initiatives; (2) seeking to improve existing ones; or (3) in need of new perspectives on stakeholder involvement and public participation at the Agency.*

Our review suggests that EPA has made important progress in expanding its efforts to work with the public and is continually trying to improve. However, EPA has limited ability to measure improvements in how the Agency works with stakeholders and the public. Many of the reports, summaries, and briefings reviewed for this report were sufficient to characterize the effectiveness of a particular Agency stakeholder involvement or public participation activity. However, several documents lacked an evaluative component, making it difficult to discern different efforts' strengths and weaknesses. To improve Agency initiatives in the future, it would be valuable to evaluate a greater number of EPA's initiatives to work with the public: for both traditional and non-traditional approaches. It's clear that the Agency has worked hard to involve the public. What isn't always as clear is how effective EPA's initiatives have been. A greater focus on developing standard evaluation criteria and performance measures that evaluators can draw upon should greatly assist this effort.

This page intentionally left blank

Introduction

Throughout the 1980s and 1990s citizens have sought to become more active participants in the environmental decision-making process. The U.S. Environmental Protection Agency (EPA) has responded by working hard to better ensure that citizens can have a substantive impact on environmental decisions affecting them at the national, regional, and local levels. The public's role in environmental decisions was generally limited during the 1970s to federal register public comment periods on rules and permit decisions, review of environmental impact statements and occasional input through a relatively small number of Federal Advisory Committees. However, in the early 1980s through its regulatory negotiation efforts, EPA began moving beyond traditional rulemaking to a collaborative process. Although these regulatory negotiation efforts were few, the framework used in these multi-stakeholder, consensus-based processes helped lay the groundwork for expanded public participation initiatives in the 1990s.¹

Today EPA initiates and supports a vast array of stakeholder involvement and public participation activities^a well-beyond the scope of what was in place when the Agency opened for business in 1970. Some of these activities and initiatives include: Superfund Technical Assistance Grants, Superfund Job Training Initiative, Forum on State and Tribal Toxics Action, Consumer Labeling Initiative, Sector-based Environmental Protection, Regulatory Negotiation, Watershed Partnerships, Environmental Justice Small Grants Program, Community-based Environmental Protection, and National Community Involvement Conferences.

In the 1990s, EPA increased its efforts to involve the public by giving citizens, industry, environmental groups, and academics a much greater opportunity to play key roles in environmental decision-making. EPA engages the public and stakeholders by conducting outreach, exchanging information, providing the public with opportunities to make formal EPA

^aThis report makes reference to stakeholder involvement activities and public participation activities throughout. *Public participation activities* represent the full spectrum of actions and processes that EPA uses to involve the American public in the work of the Agency. Public participation activities and processes allow the public to participate in Agency actions and hold the Agency accountable for its decisions. Some activities with significant public participation components discussed in this report include public hearings for Superfund and permit-related actions and public dialogues.

Stakeholder involvement activities imply activities where EPA engages a select set of individuals, groups or representatives of those individuals and groups to work directly on specific issues. Stakeholders are individuals and organizations or their representatives who work with EPA primarily because they have an interest in the Agency's work and policies or seek to influence the Agency's future direction. Some activities and programs discussed in this report that include a specific stakeholder involvement component include Project XL and regulatory negotiations. For a more thorough discussion of EPA public participation terminology, see *Engaging the American People: A Review of EPA Policy and Regulations with Recommendations for Action*.

recommendations, and working with certain groups to develop consensus agreements.^a Roundtables, constituency meetings^b, charrettes^c, information gathering sessions and websites are just a few tools the Agency has come to rely upon over this past decade to ensure more effective stakeholder involvement and public participation. As evidence mounts that some of the best solutions to environmental problems can be achieved in tandem with the public, EPA will continue to advocate for and support more effective ways to engage stakeholders and the public.

Recent EPA actions that reflect this include (1) finalization of a report to the Administrator that lays out a framework for improving how EPA conducts its public participation initiatives;^d (2) on-going Agency effort to revise EPA's policy and regulations that guide public participation efforts;^e (3) development of a comprehensive permitting reference guide that provides the foundation for understanding federal permitting public participation requirements and serves as a point of departure for getting more specific information on a given state's requirements;^f (4) release of a guidance document that promotes effective federal government consultation and collaboration with American Indian and Alaska Native Tribes regarding federal decisions that could affect tribal lands, resources, members and welfare;^g and (5) release of a guidance document that encourages early communication and collaboration between facilities, governments, and communities in order to overcome the gridlock and distrust that often

^a For a more detailed discussion on the range of EPA's public participation activities see *Engaging the American People: A Review of EPA Policy with Recommendations for Action*. For more information contact Pat Bonner (bonner.patricia@epa.gov).

^b A *constituency meeting* brings together representatives from similar organizations such as environmental groups in order to address certain issues.

^c A *charrette* is a workshop designed to involve the public in a planning or design process.

^d *Engaging the American People: A Review of EPA Policy and Regulations with Recommendations for Action*.

^e Update on EPA's 1981 Policy on Public Participation. For more information contact Pat Bonner (bonner.pat@epa.gov).

^f *Public Involvement in Environmental Permits: A Reference Guide*. Office of Solid Waste and Emergency Response. U.S. Environmental Protection Agency. August 2000. <http://www.epa.gov/permits/publicguide.htm>. This permit guide provides a baseline of information on public participation activities in the permitting process to all stakeholders in an uneven playing field. Permits are largely delegated to the states, and most of the states have their own process for engaging citizens in permit decisions--some of those are very comprehensive and others are less so.

^g *Guide on Consultation and Collaboration with Indian Tribal Governments and the Public Participation of Indigenous Groups and Tribal Members in Environmental Decision Making*. Office of Environmental Justice. Office of Enforcement and Compliance Assurance. U.S. Environmental Protection Agency. Prepared by the National Environmental Justice Advisory Council Indigenous Peoples Subcommittee -A Federal Advisory Committee to the EPA. November 2000. For more information contact Danny Gogal (gogal.danny@epa.gov).

accompany hazardous waste facility siting decisions.^a

Due to the diversity and extensive number of Agency initiatives involving the public, however, much of the wisdom and experience gained by EPA staff implementing these efforts can get lost from one activity to the next, making it difficult for the rest of the Agency to benefit. Staff performing outreach and leading stakeholder involvement activities in one office may have limited interaction with staff performing similar types of work in other offices. In addition, Agency reviews of stakeholder involvement and public participation tend to focus on single initiatives and preclude Agency staff benefitting from a broader perspective of EPA's public involvement activities. To date, no comprehensive effort has been made to collectively document the many lessons EPA has learned in its efforts to more effectively involve the American public.

With this report, the Office of Environmental Policy Innovation (OEPI) has taken a fresh look at EPA public involvement initiatives by reviewing formal evaluations and informal summaries from across the Agency that identify, describe, and/or evaluate Agency stakeholder involvement and public participation activities. In total we reviewed just over thirty evaluations and reports. Based upon our review, we identify key cross-cutting lessons learned, pinpoint unique barriers and ways to overcome them, and highlight innovative approaches to stakeholder involvement and public participation. *This report is informed by Agency evaluations and reviews and is written for EPA staff and EPA's co-regulators. As such, it will be a valuable tool for staff who are (1) considering new initiatives; (2) seeking to improve existing ones; or (3) in need of new perspectives on stakeholder involvement and public participation at the Agency.*

^a *Social Aspects of Siting RCRA Hazardous Waste Facilities*. Office of Solid Waste and Emergency Response. U. S. Environmental Protection Agency. April 2000. <http://www.epa.gov/epaoswer/osw/mbody.htm>

Lessons Learned in Stakeholder Involvement and Public Participation

In the following pages we discuss some of the major lessons learned by EPA staff from various program offices and regions who have implemented stakeholder involvement or public participation activities. The lessons describe common themes and recommendations found throughout the evaluations, summaries and reports. These lessons are rooted in the experiences of EPA staff, their co-regulators, industry, environmental groups, and local citizens. The first section below describes five lessons learned that could apply to almost any public participation or stakeholder involvement initiative. The second section describes five sets of lessons that are specific to particular Agency activities such as stakeholder negotiation, community outreach, and capacity building.

Establishing Trust Is Integral

Trust between EPA and the public is a crucial component of any stakeholder involvement or public participation initiative in order to ensure an effective working relationship. However, trust between the Agency and stakeholders can take time to develop. Historically, some communities and organizations have had adverse relationships with government agencies that carry into the present. In other instances, statutory or regulatory limitations may lead to a break down of trust between communities and agencies.² For example, in the 1980s at a Superfund site in New Mexico, EPA at first had difficulty addressing the affected community's contaminated drinking water supply because of a petroleum exclusion in the Comprehensive Emergency Response, Compensation, and Liability Act (CERCLA).³ This initially damaged the affected community's trust in, and respect for, the Agency.⁴

To overcome such barriers, making extra efforts to ensure trust can prove crucial. For example, in a Superfund community in Los Angeles in the early 1990s, only by initiating a comprehensive and concerted effort to engage the community about site problems and cleanup solutions was EPA able to develop the trust it needed with the community to move forward on cleanup.⁵ Much can be done to enhance trust including: 1) meeting with the community early,⁶ 2) responding to community concerns and clearly explaining what action will be taken to address their concerns,⁷ 3) maintaining a presence in the community, 4) working with the community on equal footing,⁸ 5) openly sharing information,⁹ 6) involving stakeholders in decision making and data gathering,¹⁰ 7) linking up with trusted local officials,¹¹ and 8) keeping communication channels open.¹²

Credible Data and Technical Assistance Can Be Critical

Credible sources of information can serve a very important role in solving conflicts with stakeholders and the public. One evaluation completed in late 1998 looked at eight Agency regulatory negotiations and found that eighty percent of the controversial issues “were either successfully negotiated or resolved through the presentation of objective data and/or analysis.”¹³ Often, data credibility depends upon whether the data can be produced or confirmed by an outside source. Without outside expertise, groups with non-technical backgrounds can be significantly disadvantaged in their ability to participate effectively in decision-making.¹⁴ In the Carpet Policy Dialogue, a one-year multi-stakeholder policy discussion initiated in 1991 that focused on encouraging the carpet industry to reduce volatile organic compound (VOC) emissions, the industry was responsible for gathering the data needed for the policy discussions. This led to controversy over the adequacy and reliability of the data and potentially limited progress on certain policy issues because several stakeholders did not trust the industry’s data collection method.¹⁵ No outside verification of the data was conducted and participants’ concerns were not relieved. One participant remarked that “a lot of issues were swept under the rug as a result of the dialogue needing to accept the data as it was presented.”¹⁶

Without a concerted effort to ensure reliable, trustworthy data, the stakeholder process may prove frustrating for all participants involved. EPA has made strides to improve in this area, however, by enabling participants in multi-stakeholder processes easier access to technical experts. For example, in 1988, the Superfund program started making Technical Assistance Grants available to community groups which enabled them to hire technical experts to review technical issues associated with contaminated sites. This effort has proven to be a considerable success making it easier for community groups to interpret data and reports, understand technical issues, improve dialogue with EPA, educate other nearby residents about the issues, and establish the credibility of the group.¹⁷ More recently, in response to claims that Project XL did not enable local residents to fully participate in individual XL project negotiations since they often lacked technical expertise, the Project XL team developed a grant program similar to that of the Superfund program whereby stakeholder groups can apply for task-specific technical assistance to help them address XL issues either in project negotiation or implementation. In early 2000, two stakeholder groups each accessed this grant to improve their ability to participate in project negotiations for two XL projects involving a paper mill in Jay, Maine.

Recognize the Links between Environmental, Economic, and Social Concerns

Throughout the 1990s more communities began to recognize that in order to improve their quality of life they must focus on solutions that link together their environmental, economic and social concerns. As communities have adopted this approach, EPA has reached out to communities to assist them in their holistic planning efforts by advocating and supporting the Watershed Approach and Community-based Environmental Protection. However, being a

regulatory agency, EPA can be slow to direct focus on communities' social and economic priorities. In EPA's Brownfields Initiative launched in 1994, EPA was initially criticized for spending most of its attention addressing concerns of developers and investors instead of those expressed by potentially affected community members. For example, one observer suggested that "EPA's Brownfields locomotive left the station without a major group of passengers."¹⁸ A year later, however, EPA responded to this criticism by hosting a series of public dialogues designed to solicit input from local residents most likely to be directly impacted by Brownfields policy decisions.

EPA can work to integrate economic and social concerns into environmental decision-making by forming partnerships with impacted communities and taking time to learn about community quality of life and environmental justice concerns. EPA staff should be prepared to answer questions about local economic impacts and health impacts of its environmental decisions.¹⁹ For instance, will the permitting of a certain type of facility negatively affect a community's ability to garden, fish, or hunt because of possible future contamination? EPA can improve its understanding of impacts by gathering a wide-variety of information from local residents including demographic information, oral history of community's health, and location of important cultural, religious, and historical sites.²⁰ By working harder to integrate social, economic, and even cultural concerns of the community, EPA can enhance trust between industry stakeholders and the community and ultimately strengthen environmental decision-making both in its non-traditional activities, such as Project XL, and in its regulatory activities, such as the permitting of hazardous waste facilities.

Successful Stakeholder Involvement and Public Participation Activities Require That Agency Staff Receive Training or Expert Assistance

Agency staff involved in stakeholder and public participation efforts, including partnerships, need special training both in the value and use²¹ of these activities and how to conduct them properly. If training is not available, staff should obtain expert assistance. A variety of skills and techniques in addition to adequate background knowledge are a must if the initiative is to be successful. For instance, at the start of the Carpet Policy Dialogue in 1990 (see above), little effort was made to train EPA staff as to what their roles would be alongside the facilitator. As a result, several EPA staff did not know what to expect and did not understand how to best participate.²² In a 1999 evaluation that looked at public participation in contaminated site cleanups, Community Advisory Board members involved in contamination remediation at the Sandia National Laboratory Site near Albuquerque remarked that public participation processes will not be perceived as credible unless agency staff are educated why such processes are important and how they should be implemented.²³ Other areas in which staff involved in public participation and stakeholder involvement activities could benefit from training include: listening and communication, partnering, process management, negotiation, consensus-building, vision-building, cross-cutting analysis, and multi-media approaches to environmental protection.^{24,25} In addition, for staff lacking experience but currently involved in public

participation initiatives at the community level, efforts should be made to coordinate work with local residents experienced in community outreach.²⁶

Several Factors May Limit Participation

Several factors may limit the willingness or ability of citizens to participate in either stakeholder involvement or public participation initiatives. Citizens may have difficulty participating in technical discussions because they believe they will be unable to significantly influence issues, or because they lack time to participate substantively. They may choose not to participate because of a lack of controversy surrounding an issue or because they are simply “turned off” by conflict.²⁷ In a 1998 EPA evaluation of public involvement in the Source Water Assessment Program, a Congressionally-mandated program requiring all state environmental agencies to develop and implement plans for ensuring safe drinking water, several citizens described additional reasons why they were unable to participate effectively as advisory committee members for their respective state agencies. These included inadequate explanations of background and technical material, inadequate minutes from meetings, and overwhelming amounts of reading.²⁸ Furthermore, citizens may choose not to participate for historical (e.g., this solution was attempted years ago without success), social (e.g., outsiders have low expectations of what stakeholders can actually contribute) or cultural (e.g., the problem was a result of god’s will), reasons.²⁹ Non-participation may also be a cultural way of indicating opposition to a certain initiative.³⁰ It is not necessary to have high a degree of involvement for all public participation or stakeholder involvement initiatives. However, lack of adequate participation or lack of effective means for participation can result in agreements or policies that do not necessarily reflect the interests of communities or constituencies that will be most impacted by them.

Recognizing Barriers to Participation

Inadequate explanations of background and technical material

Difficulty participating in technical discussions

Inadequate minutes from meetings

Overwhelming amounts of reading

Perceived inability to influence issues

Lack of time to participate



Lessons Learned in Multi-Stakeholder Negotiation

Many Agency initiatives involve some form of multi-stakeholder negotiation. Key lessons learned can improve the quality of future negotiations for the Agency and participating stakeholders. First, in the early stages of any stakeholder negotiation it is crucial to clarify the

type of stakeholder process to be used, what the goals will be, and what the negotiation process can and cannot accomplish. Even if there is only a low-level of trust among stakeholders, an effective communication and decision-making process can still allow for successful negotiation to take place.³¹ Second, it is important to educate stakeholders on both the process and technical issues before the negotiation. By spending extra time up-front to better ensure a common understanding for all stakeholders, the quality of the negotiation should be greatly improved and the time required to carry out the negotiation significantly reduced. Third, it's important to use a trained facilitator throughout the negotiation. Lack of quality facilitation can impede a successful negotiation. Moreover, employing a trained facilitator only when it becomes apparent that a facilitator is needed may not erase troubling developments that have already emerged.³² Fourth, it is often essential that EPA senior leadership play a very active role in negotiations. If EPA does not show high-level support for the process it's advocating, it's clear that other stakeholders may be less than enthusiastic about developing an agreement or product. With high-level participation, EPA can keep other stakeholders at the table and clarify possibilities for agreements.³³

Finally, it's important to include a full diversity of stakeholders and perspectives. The greater the diversity, the more likely the process itself and resulting products will be perceived as credible. It can be easy to by-pass certain stakeholders and pull together a group where issues can be resolved with relative ease. Only by drawing together all affected stakeholders, however, can contentious issues truly be resolved and effective, long-lasting agreements be reached.³⁴ Moreover, by ensuring diversity, there is a much greater likelihood that issues of environmental justice may be resolved.³⁵ Without a broad range of voices, the concerns of disenfranchised can be more easily ignored.

Lessons Learned in Partnerships

Many evaluations focused on partnerships involving EPA and other stakeholders. The partnerships vary considerably in terms of stakeholders, the size of the area of concern (e.g, single rural community to a region spanning several counties), and the types of environmental problems addressed, yet the evaluations describe several valuable lessons learned that could be

Improving Stakeholder Negotiations



Clarify the type of process to be used, what the goals will be, and what the process can and can't accomplish

Educate stakeholders on both the process and technical issues

Use a trained facilitator throughout the negotiation – don't wait until troubles emerge

Plan EPA's involvement carefully – high-level participation is critical

Include a full diversity of stakeholders

applied to almost any partnership. One important lesson is the need for participating stakeholders to develop clear visions, goals, and action items for the partnership.³⁶ With goals and objectives broken down into discreet tasks, it is easier for partnership efforts to measure and celebrate results and build trust. There will not always be complete agreement on an overall vision, but a vision that everyone accepts can be sufficient to get the partnership started. This can, in turn, set the stage for the development of more specific objectives and action items.³⁷ For partnerships where problems are complex and somewhat ambiguous, it can be useful to develop a shared context of meaning amongst the different stakeholders. For example, use of EPA's comparative risk process can center the partnership decision-making process around a common set of definitions³⁸ and make it easier for all to participate. Another essential lesson is that local stakeholder involvement in partnerships can be critical. Without local leadership and support, it may be difficult to advance the partnership.³⁹ Finally, care should be taken with the press to make sure they understand partnership efforts and can adequately explain them to the community.⁴⁰

Building Better Partnerships



Establish clear visions, goals, and action items

Encourage a vision that everyone can accept

Develop a shared context of meaning for stakeholders in partnerships with ambiguous goals

Closely involve local stakeholders

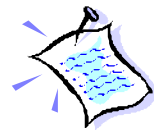
Ensure that partnership goals, activities, and results will be effectively

Lessons Learned in Community Outreach

Community outreach can involve a variety of actions including posting information on an agency web site to holding a public hearing.

Evaluations covering community outreach include several important lessons. First, when preparing to educate groups about a certain issue, it's important to know your audience. This includes understanding how the audience prefers to learn, making information easy to understand, and providing information in plain English or the predominant languages of the community. Building on this, it is also important to host meetings at times that are convenient for most community members and to announce meetings through media that are regularly used by community members. Additionally, when conducting outreach it is important to ensure that the message is heard beyond those most willing to

Enhancing Community Outreach



Know your audience

Hold meetings at times convenient for community members

Work hard to engage those community members not immediately receptive to your message

Use websites to complement, rather

listen.⁴¹ Certain groups are easier to communicate with than others. However, chances are that some groups most likely to be impacted by a decision will be hardest to reach. Special efforts, therefore, must be made to meet this challenge. Websites are useful for conducting outreach, however they are by no means perfect. Besides the fact that not everyone has access to the Internet⁴², websites do not always operate correctly, they do not allow for meaningful public input, and it can be time-consuming to download material from them.⁴³ Finally, it's important to realize that no matter how information is provided, certain groups simply may not believe the information⁴⁴ or, they may only believe the information if it coincides with their position.⁴⁵ This can lead to considerable frustration on behalf of all parties involved. Although there are no easy remedies for this, allowing groups adequate opportunity to respond and gain additional feedback from the Agency may help to defuse certain controversies.

Lessons Learned in Public Participation in Agency Decisions

In addition to providing information to stakeholders and the public, the Agency works to actively involve these same groups in Agency decision-making on issues ranging from cleanup at a contaminated site to permitting discharges at an industrial facility. The evaluations reviewed discuss a range of lessons learned that focus on public participation in decision-making. First, it's important to involve the public in Agency decision making early. Stakeholders and the public have perspectives and insight that can greatly improve the quality of decision-making. For example, in 1997, a community's input regarding a proposed remedy for a Superfund site located on the lower east fork of Poplar Creek in Tennessee led to a savings of \$160 million in clean-up costs after citizens argued that the level of risk reduction called for in the proposed cleanup plan did not justify the \$168 million price tag, and opted for an \$8 million cleanup instead.⁴⁶ Second, holding public meetings and hearings that are structured to address public concerns is critical. Such efforts send a signal to the community that the public's input truly is valued.⁴⁷ Third, when EPA asks for and receives citizen input, the Agency needs to be able to clearly explain how that advice will be used. If the Agency makes a decision at odds with citizen input, the Agency should clearly explain why and expect that citizens will strongly desire to re-state and argue their position. The Agency must have a clear, flexible process that allows citizens to further debate the

Effectively Involving the Public in Agency Decisions



Get the public involved early

Ensure that public meetings and hearings allow public's concerns to be adequately addressed

Clearly explain how public input will be used

Give public adequate explanations if their input is rejected

Re-double efforts to involve the public in Agency decision making if

Agency's decision and be open to the possibility that the decision may require changes before being considered final. Without such measures, the credibility of the public participation effort may be lost.⁴⁸

Finally, if public participation in Agency decision making is low, it is important for the Agency to identify why, test a variety of efforts to encourage participation, or even re-think the entire process. Without such efforts, the Agency may not be able to discern whether a program or permit will actually benefit the community.⁴⁹

Lessons Learned in Capacity Building

Several evaluations touch on the capacity of citizens to participate more effectively in environmental decision-making. EPA has used a series of tools including grants, direct technical assistance, information postings on the Internet, hardware, technical resources such as phone conference and email support, and facilitation services. The evaluations provide several lessons about capacity building that are relevant. First, capacity building efforts can help communities lacking organization and leadership turn concerns into action and enable citizens to better process information and provide input into Agency decisions.⁵⁰ Second, even relatively low levels of funding for capacity building initiatives can have significant impacts. Flexibility in how the funding is spent can encourage innovation, and initial grant monies can make it easier to leverage other sources of funding.⁵¹ Finally, when engaging in a capacity building initiative it is important to understand the civic infrastructure of the community targeted for assistance.⁵² Fully understanding and capitalizing on the existing resources and institutions can make it easier to undertake and enhance an initiative's effectiveness. For example, in a 1999 EPA New England capacity building effort, EPA was able to greatly increase the participation for its urban sprawl demonstration projects by networking with regional municipal associations.⁵³

Why Build Capacity?



Enables communities lacking organization and leadership to turn concerns into action

Helps citizens better process information and provide input into Agency decisions

Empowers communities to leverage additional resources

Allows communities to capitalize on their existing civic assets

Unique Barriers to Effective Stakeholder Involvement and Public Participation

When implementing various stakeholder involvement and public participation initiatives, obstacles and roadblocks often emerge which can curtail an initiative's potential effectiveness or momentum. In this next section we describe some of these unique issues and discuss what attempts were made to overcome them.

Numerous Stakeholders, Complex Issues

Achieving success in stakeholder negotiations involving large numbers of stakeholders and/or complex technical issues can be difficult. In 1995, EPA faced both these challenges directly when it established a Subcommittee under the Clean Air Act Advisory Committee to provide advice and recommendations on new, integrated approaches for meeting the new and revised National Ambient Air Quality Standards (NAAQS) for particulate matter and ozone and for reducing haze in national parks and wilderness areas. The Subcommittee consisted of 83 members, and was supported by four working groups and a coordination group which together included roughly 140 more individuals. Participants represented diverse stakeholder interests ranging from state, local, and tribal governments, public health and environmental groups, to industry, academia and other federal agencies.

EPA asked the Subcommittee to address several different complex policy and technical issues that could have long term ramifications for air quality management and to provide innovative solutions which would satisfy the concerns of each participating stakeholder. Given the diversity and number of stakeholders involved, and given the emphasis placed upon addressing the concerns of each stakeholder, this effort could have easily been plagued by disagreements between stakeholder groups, lack of coordination between the Subcommittee and the working groups, or lack of clear direction and objectives.

The framework used for the negotiation enabled stakeholders to avoid this outcome for number of reasons. First, after the work groups were formed, the Subcommittee assigned topics to each work group according to their responsibilities initially outlined by the Subcommittee. Each workgroup then highlighted key issues and chose lead authors to develop issue papers. These actions appear to have ensured that the most important topics were adequately addressed. Second, the coordination group provided instructive guidance for how issue papers should be developed by producing a set of content- and process-related principles that served as frameworks. The process-related principles consisted of six parts that described who would be expected to give input, how decisions would be made, and how the issue papers should be presented to the Subcommittee. The content-related principles consisted of nine parts that described substance-related factors that must be considered when developing the issue papers. For example, the fourth principle suggests that any working group recommendations requiring

amendments to the Clean Air Act be clearly identified and include an analysis of the advantages and disadvantages of doing so. The coordination group also conducted preliminary reviews of products before the work groups presented them to the Subcommittee.

Third, one of the working groups, the Communication and Outreach working group, labored to ensure adequate levels of communication within the Subcommittee and other work groups by creating an Internet site where information could be posted and by producing “plain English” summaries of issue papers. Finally, another working group, the Science and Technical Support working group, helped fill the technical gaps experienced by other working groups developing issue papers by addressing specific technical questions, participating on joint issue paper teams, writing specific sections for other work group papers, and providing formal comments.⁵⁴

Through the course of the negotiation effort, the working groups presented approximately twenty-five issue papers to the Subcommittee. These issue papers then formed the foundation which the Subcommittee used to decide which recommendations would be made to EPA. Although consensus was not reached on an overall package of recommendations, the Subcommittee successfully provided EPA with numerous options and recommendations regarding programs to meet the new and revised NAAQS and for furthering progress in regional haze reduction.⁵⁵

Ensuring Successful Outcomes in Negotiations with Numerous Stakeholders and Complex Issues



Provide direction and ensure that certain topics will receive adequate attention

Consider developing a set of content-related and process-related principles to help guide how issues should be addressed

Assure proper levels of communication between subcommittees and work groups

Provide on-going scientific and technical support to work groups

Defining EPA’s Role in Multi-Stakeholder Negotiation

In multi-stakeholder negotiations, it can be difficult for EPA to determine its appropriate role. This can slow negotiation momentum and build frustration for other participating stakeholders. Should the Agency play the role of observer, advisor, facilitator, and/or stakeholder? Even when the Agency decides what its role should be, however, this does not necessarily make it easy for EPA to participate. In the Carpet Policy Dialogue, a consensus-based approach focused upon reducing exposure to volatile organic compounds released from carpet products that took place over a year between 1990 and 1991, participating Agency staff showed a lack of consensus about what role they were supposed to play even though the

negotiation was facilitated by an outside party. Differing perspectives resulted from two factors. First, certain EPA participants were not comfortable that nontraditional processes did not have a clear basis in law. Second, it was very difficult to develop a consistent Agency response to issues that arose in the dialogue because of the time and effort needed to work with four different offices and staff operating under different environmental statutes. As a result, EPA made several remarks that were either ambiguous or competing during the initial stages of the dialogue.

After this troubling start, however, EPA eventually began to provide a more coherent perspective on issues. The Agency did this by establishing an ad hoc coordinator who, with the support of EPA management, helped to ensure that critical concerns and issues raised during the dialogue were brought to the attention of, and addressed by, appropriate EPA staff. In addition, EPA was able to participate as an effective stakeholder because of 1) the high degree of importance the Agency placed on the dialogue, 2) the one year deadline that served as a catalyst for resolution of issues, 3) the establishment of clear objectives, and 4) EPA's ability to assemble an Agency stakeholder team with sufficient technical expertise.⁵⁶

Complexity in Place-Based Projects

Significant challenges can also arise in ensuring effective stakeholder involvement in place-based projects covering large geographic areas, involving numerous stakeholders and varied and complex issues. EPA learned first-hand about these challenges when it got involved in the *Eastward Ho!* Initiative, a robust regional project in South Florida on the Atlantic side aimed at encouraging development in existing urban centers, limiting sprawl and promoting sustainable development. EPA's effort centered mainly around forming a Brownfields Partnership to ensure that Brownfields redevelopment would fit within *Eastward Ho!*'s overall vision. The Partnership includes over 65 counties and localities, business leaders and other organizations.⁵⁷ The Partnership region covers a 115-mile long corridor along the coastal ridge in eastern Dade, Broward, and Palm Beach Counties, containing nearly five million people and 2,100 contaminated sites.⁵⁸ EPA worked with partnership members to ensure that contaminated sites were inventoried, permitting and regulatory issues associated with site redevelopment were addressed, and all stakeholders participated in the Partnership, among other activities.⁵⁹

With such an ambitious project involving so many stakeholders EPA could have easily

Ingredients for Working Effectively as an Agency Stakeholder



Provide a coherent EPA perspective on issues by establishing coordinator to ensure that critical issues raised by dialogue are addressed by appropriate EPA staff

Assemble an EPA stakeholder team with sufficient technical expertise

Set meaningful deadlines

Establish clear goals

chosen to avoid getting involved, fearing an inability to contribute adequate resources, lack of a defined role for the Agency, or lack of clear goals to enable measurement of success. However, EPA engaged in a number of different ways that had positive effects on the Partnership effort. First, EPA brought a “big picture” perspective to the project. This encouraged local leaders to look past boundaries and adopt a wider regional perspective. EPA’s national perspective also paved the way for the involvement of a more diverse group of stakeholders previously not considered.⁶⁰ Second, EPA supported the effort by providing key fiscal and education resources. For instance, stakeholders benefitted greatly from EPA’s effort to educate Partnership members about communities confronting similar Brownfields issues from across the nation.⁶¹ EPA also provided and supported a communication network that enabled participants to consistently discuss ideas and make decisions collaboratively.⁶²

In addition to specific contributions, EPA also used new strategies. First, EPA used a “try and see”⁶³ approach when working to further the Brownfields Partnership’s progress. Because of the complexity inherent in efforts such as the *Eastward Ho!* Initiative, understanding causes and effect can be difficult. In those situations, even small changes can have significant consequences. EPA provided Partnership members with information about how to apply to be recognized as a National Showcase Community. As a result, in 1998, the *Eastward Ho!* Brownfields Partnership area was selected by Vice President Gore as a Showcase Community,⁶⁴ potentially contributing to a great number of positive political, social, and economic effects.⁶⁵ Second, EPA used guiding principles instead of a precise formula for addressing problems that potentially had more than one right answer. Instead of deciding criteria for the right answer, EPA set principles to help local leaders debate the relative merits of each solution in the context of determining what “answer” would make the overall South Florida effort stronger.⁶⁶

**Keys to Being a
National Teammate in
Complex Local
Projects**



Supply the “Big Picture” perspective

Provide key fiscal and educational resources to expand options

Take a “try and see” approach to project improvement –even seemingly small contributions can have significant, positive effects

Support a communication infrastructure to facilitate dialogue between stakeholders

Use guiding principles to make decisions when potentially more than one right answer exists

Innovative Approaches to Stakeholder Involvement and Public Participation

Traditional methods of involving the public and stakeholders have typically included public notice and comment periods and occasional public hearings. Some see the Agency's avenue for participation as adequate and realistic based upon the high number of rules and permitting decisions the EPA is involved in each year. Others have criticized the Agency for blocking effective public participation claiming that the Agency does not adequately notify the public of proposed Agency actions or that resource or technical barriers are so high that the public cannot effectively participate. However, innovations in stakeholder involvement and public participation are helping to overcome these barriers and EPA, co-regulators, and the public are all benefitting.

A handful of these innovations are discussed in more detail below. The innovations cover the years 1995 through 1999. Some innovations focus on process. These include innovative ways to build capacity, such as giving regional organizations authority to distribute federal grant monies to small communities to make environmental improvements; innovative ways to ensure meaningful public input, such as holding public hearings in a non-traditional manner; and innovative ways to perform outreach, such as building support for Agency initiatives by working first through local municipal associations. Other innovations focus on technology, such as a computer program that assists stakeholders to work towards agreements. While the innovations come in various forms, they all have the common goal of ensuring better and more meaningful involvement of stakeholders and the public.

Ensuring Meaningful Public Input (1995)

EPA is testing unique approaches to ensure that the public can meaningfully impact EPA programs and activities. During the initial stages of EPA's Brownfields Economic Redevelopment Initiative, EPA was criticized by the public for not soliciting input from those residents that would potentially be most impacted by Brownfields clean up and redevelopment but instead for focusing mainly on concerns of developers and investors. In response, EPA co-sponsored a series of innovative public forums referred to as the Public Dialogues to enable environmental justice advocates and community-based groups from across the country to voice their concerns regarding this high-profile, national policy issue. EPA's partner in this effort, the National Environmental Justice Advisory Council (NEJAC), closely involved communities in "planning, preparation, structure, and execution"⁶⁷ of the Dialogues and centered the Public

Did you know... In June and July 1995 EPA and the National Environmental Justice Advisory Council sponsored a community-driven public forum in five cities across the United States to give community groups a direct say in EPA's Brownfields Initiative?

Dialogues discussions on the issues of most concern to communities. Instead of a typical question and answer format, each Public Dialogue had two distinct components. In the first part, communities voiced their concerns regarding the Brownfields Initiative and their visions for ensuring healthy and sustainable communities. In the second, government agency representatives, social institutions, and business organizations were asked to describe what role they could play to help these communities achieve their visions. In addition, to avoid having concerns and recommendations reduced to sanitized phrases in the final Public Dialogues report, organizers made every effort to accurately reflect the voices of community members. As such, the supporting report contains extensive quotes from Dialogues participants throughout the text. Together, these actions resulted in a robust set of recommendations and action items for involving communities more directly in EPA's Brownfields efforts.⁶⁸

Since the report was released in 1996, the concerns raised and recommendations made in the report have resulted in numerous positive impacts. First, the Agency has developed and prepared annual Brownfields conferences to engage and join numerous stakeholders to exchange information and develop additional opportunities for communities to be directly included in Brownfields redevelopment decisions. EPA has supported other dialogues as well through grants and cooperative agreements to further encourage the sharing of Brownfields ideas and environmental justice experiences of different stakeholders from government, business, and communities. Federal agencies have also joined together to support the Brownfields National Partnership in order to improve interagency collaboration on Brownfields redevelopment issues. In addition, EPA has helped create a job training program which prepares trainees for environmental careers while achieving Brownfields clean ups.⁶⁹

Building Capacity (1996)

EPA is playing a hands-on role to help communities solve local environmental problems. In Southern Baltimore, EPA worked side-by-side with community members, business leaders, and local, state, and federal government officials to assess air pollution threats from 125 industrial, commercial, and waste facilities concentrated in an area containing roughly 30,000 people. In 1996, members of the partnership effort set goals to (1) determine if existing toxics from these sources may affect community health, and (2) recommend actions for air quality improvement. After setting goals, partnership members conducted an odor survey, reviewed a TRI report on local releases, and met with a

Did you know... Starting in 1996, EPA Office of Pollution Prevention and Toxics' Community Assistance Technical Team began playing an instrumental role as a member of the Community Environmental Partnership in the development of a community-driven, risk-based screening approach to assess numerous air pollution threats in Southern Baltimore?

dioxin expert. Following this preparatory work, partnership members agreed on a risk-based air pollutant screening approach to help identify which chemicals being emitted pose the greatest risks. For the first screening, partnership members used accessible information and performed “simple and protective risk calculations”⁷⁰ to review the 175 chemicals being emitted. Two subsequent screenings were then performed, enabling partnership members to perform a more extensive analysis on a smaller set chemicals. After the final analysis, partnership members developed recommendations based on the screening effort and a report describing the results and recommendations for the community. The results of this effort have helped the community set priorities and determine possible remedies for air quality improvement. The report has also provided the community with a baseline from which to measure air quality improvements in the future. In addition, the screening methodology will soon be made available in a “how-to” manual to enable other communities to directly assess and improve local air quality.⁷¹

Building Capacity (1997)

EPA is using grants in new ways to assist local community environmental efforts (e.g., EJ, CBEP). In 1997 the Office of Research and Development’s National Risk Management Research Laboratory (NRMRL) used special CBEP funds to assist nine rural communities in Region III to address a variety of local watershed issues and other environmental problems through a unique approach which involved regional resource providers and the National Association of Counties (NACo). Implementation of this effort was a partnership between NRMRL, the Office of Research and Development’s Office of Science Policy, and Region III. The purpose was to facilitate implementation of local problem solving by 1) providing training for local teams to become aware of assistance tools from EPA, 2) supporting regional resource providers to assist the local teams in their efforts, and 3) providing a nominal amount (\$10 to 15,000) of money to be used as the local teams and their resource providers saw fit. Funding was provided to NACo who subsequently entered into agreements with the resource providers (The Alliance for Chesapeake Bay, Canaan Valley Institute, and the Virginia Eastern Shore Resource Conservation and Development Council), who in turn provided the finances for the local projects.

Did you know...In 1997 ORD’s National Risk Management Research Laboratory (NRMRL) used special CBEP funds to assist nine rural communities in Region III to address a variety of local watershed issues and other environmental problems through a unique approach which involved local resource providers and the National Association of Counties (NACo)

The first major activity was a training session at the U. S. Fish and Wildlife facility in Shepherdstown, West Virginia where the presenters included all the federal partners, EPA’s Offices of Water and (what is now) the Office of Policy, Economics, and Innovation, and NACo. The presenters attempted to familiarize the local groups with an array of EPA and other potentially valuable tools available on the Internet and in hardcopy. Each of the local teams from

the states of Maryland, Pennsylvania, West Virginia, and Virginia was asked to develop a one-year implementation plan which included at least one tool from this workshop. Tools included Region III's Internet-based Green Communities Toolkit, EPA's draft Community Cultural Profiling Guide, and Geographic Information Systems (GIS). By the end of the project great strides had been made by all of the local projects, and a debriefing for all participants was held in Deep Creek Lake, Maryland, which clearly showed that the EPA support, though modest, was the key to successfully advancing the project and in many cases provided support to obtain numerous other grants which totaled many times the funding offered through the project. It even more convincingly showed that the local or regional resource providers were the absolute essential ingredient to success by working with the local groups and helping them move forward with a whole array of needs and tools, and that direct EPA involvement is often intimidating and stifling owing to its regulatory nature.⁷²

Using Technology to Improve Stakeholder Involvement (1997)

EPA is using and supporting technology to improve stakeholder involvement. The best example of this involves the Spring Creek (PA) Watershed Association, an EPA grant recipient that applied a large share of its funding to rent a state of the art computerized facility at Pennsylvania State University to facilitate their community visioning process which involved 40 stakeholders from across their 175 square mile watershed. Before each session a facilitator collaborated with a Team Decision Center information officer to carefully plan the meeting agenda and develop questions to ensure that the responses would provide the information needed to enable participants to

Did you know... Starting in 1997, the Spring Creek Watershed Association applied a large share of its EPA funding to rent a state of the art computer facility in order to facilitate a community visioning process involving a group of 40 stakeholders from across a 175 square

move one step closer towards achieving their original goals. Once meetings began, participants sat at computer terminals where they could each type in responses to questions and instantly see all responses on a larger screen. When participants voted on key issues, statistical analyses were immediately performed and displayed allowing participants to easily observe results. Ample time for discussion was also provided, during which participants could also send in anonymous responses via their computers to be posted on the large screen. Five, three-hour meetings, involving approximately 40 stakeholders, were held over the course of eight months. Each meeting was very successful, resulting in consensus, decisions, and work products. It was approximated that, without benefit of the advanced technology, each of the five sessions would have required full two-day retreats to yield the same positive results. Moreover, it was determined that because of the streamlined technology and focused sessions, a much higher number of key stakeholders participated.⁷³

Performing Outreach (1999)

EPA is continually working to improve how it can reach out to stakeholders and keep them involved in Agency activities. In 1999, EPA New England and state co-sponsors undertook an exciting, low-cost initiative in three watershed areas in Massachusetts and New Hampshire to ensure high levels of support and participation for seven hands-on workshops for local government officials. The goal of these workshops was to improve local officials' abilities to integrate environmental management practices into traditional regulatory and planning activities by providing tools and techniques on pollution prevention, environmental management systems, GIS, and smart growth planning in storm water management. EPA, along with state co-sponsors, took a number of steps to ensure high levels of support and participation including: 1) establishing a working group of local officials from more than one town department and from several towns in each watershed to select and develop capacity-building workshop topics; and 2) networking with municipal associations that could help raise awareness about the workshops. Such efforts resulted in several important outcomes including 1) time savings; 2) significant increases in participation of local officials; 3) certain officials being more likely to adopt new practices after learning what proactive officials in other towns were doing; and 4) a greater understanding that local problems have regional implications.⁷⁴

Did you know... In 1999 EPA New England and state co-sponsors in Massachusetts and New Hampshire took a strategic, pro-active approach to building momentum for a series of workshops designed to encourage towns to integrate environmental and smart growth considerations into local decision making in

Other Ways EPA & Co-Regulators are Getting Innovative...

Conducting a needs assessment by placing survey cards in newsletters asking residents to list three most important issues (Rocky Flats, CO, Superfund site, circa 1990)⁷⁵

Hosting small meetings in residents' homes instead of holding traditional large meetings in public halls (Tacoma, WA, Superfund site, circa 1990)⁷⁶

Asking activist groups to recruit participants to broaden interest in agency activities (State Source Water Assessment Program, circa 1996)⁷⁷

Letting citizens choose the structure and decision-making process of an agency-sponsored citizen advisory committee (State Source Water Assessment Program, circa 1996)⁷⁸

Hosting workshops via satellite, letting attendees either call or fax in their questions (Emission Measurement Center/Air Pollution Training Institute 1998)⁷⁹

Concluding Remarks

EPA has greatly expanded the opportunity for the public to participate in Agency decisions, especially during the past ten years. Yet EPA has been criticized on a number of fronts regarding its stakeholder involvement and public participation efforts: not performing effective or sufficient outreach; not providing the public with adequate and timely information; not making it easier for persons with non-technical backgrounds to participate in technical decisions; not taking the advice it specifically asked stakeholders to provide; and only allowing communities to make their input known once industry and the Agency have already spent considerable time debating the most important decisions. In light of these criticisms, the Agency is making strides to continually improve.

Through this review, however, we have found that EPA has a limited ability to measure improvements in how it involves and works with the stakeholders and the public. Many of the summaries, briefings and reports reviewed for this report were sufficient to characterize the effectiveness of a particular Agency stakeholder involvement or public participation activity. Unfortunately, several documents lacked an evaluative component, making it difficult to discern different efforts' strengths and weaknesses. Moreover, except for the Superfund program, most in-depth evaluations centered on non-traditional agency activities such as Community-based Environmental Protection, Project XL, and Regulatory Negotiations. To improve Agency initiatives in the future, it would be valuable to evaluate a greater number of EPA's initiatives to work with the public: for both traditional and non-traditional approaches. It's clear that the Agency has worked hard to involve the public. What isn't always as clear is how effective EPA's initiatives have been. Greater focus on developing standard evaluation criteria^a and performance measures^b that evaluators can draw from should greatly assist this effort.

^a For example, it would be helpful if more evaluations answered the following questions:

What were stakeholder/public perceptions regarding their ability to participate in the process? To what degree were those expectations met? What was the level of effort required by stakeholders/the public to participate? Were the goals and steps of the process clearly explained? To what extent did the effort meet those goals? Was the process fair? Was the process competent? (e.g., was the process well-structured? was there proper leadership in place to guide the process?)

What major factors contributed to the success or shortcomings of the stakeholder involvement/public participation effort? How could the stakeholder involvement/public participation effort have been designed differently to work more effectively?

What resources (staff, time, extramural \$) did EPA spend to engage in a stakeholder involvement or public participation effort? What were the FTE (full-time employee) or dollar amounts required to perform the public participation or stakeholder involvement effort? To what extent can the level of resources be associated with positive results of the stakeholder involvement/public participation effort?

^b For example, possible performance measures could include the following: How many stakeholders/citizens participated in the effort? Were all significant stakeholder groups represented? Did the effort result in a product or agreement that furthered progress towards achieving positive environmental outcomes?

Before launching a new focus on evaluation, the Agency will need to address several issues: who should conduct the evaluations, what resources should be allocated to conduct them, which activities should be evaluated, and how should the results be shared. Although these questions will be difficult to answer, the Agency is poised to begin addressing them. The Agency's recent report to the Administrator on public participation and on-going effort to revise the 1981 Public Participation Policy point to an increased emphasis on involving stakeholders and the public. EPA today is in a better position than ever to improve how it works with stakeholders and the public to strengthen environmental decision-making.

Endnotes

1. J. Charles Fox. "A Real Public Role," 15 *The Environmental Forum* No. 6. November/December 1998, p. 24.
2. *Public Participation in Contaminated Communities*, Nicholas A. Ashford and Kathleen M. Rest. Center for Technology, Policy, and Industrial Development. Massachusetts Institute of Technology. March 1999, p. IV-23.
3. *Ibid.*, p. IV-20.
4. *Ibid.*, p. IV-23.
5. *Lessons Learned About Community Involvement: EPA Superfund Response Staff Tell How Public Involvement Has Helped Public Clean Up Sites*. U.S. Environmental Protection Agency. Washington, D.C. May 1999, see Del Amo/Montrose case study.
6. *Social Aspects of Siting RCRA Hazardous Waste Facilities*. Office of Solid Waste and Emergency Response. U. S. Environmental Protection Agency. Washington, D.C. April 2000, p. 11.
7. *Ibid.*, p. 11.
8. *Public Participation in Contaminated Communities*, p. IV-23.
9. *Ibid.*, p. IV-21.
10. *Lessons Learned About Community Involvement*, see Palmerton case study.
11. *Ibid.*, see Michigan City case study.
12. *Social Aspects of Siting RCRA Hazardous Waste Facilities*, p. 11.
13. *An Evaluation of Negotiated Rulemaking at the Environmental Protection Agency Phase I*. Dr. Cornelius Kerwin and Professor Laura Langbein, Conference Consultants. Administrative Conference of the United States. September 1995, p. 16.
14. *Constructive Engagement Resource Guide: Practical Advice for Dialogue Among Facilities, Workers, Communities, and Regulators*. Prepared for the Office of Pollution Prevention and Toxics. U.S. Environmental Protection Agency. Washington, D.C. Prepared by CRD Associates. June 1999, pp. 83-84.
15. *Carpet Policy Dialogue Assessment*. Prepared for the U.S. Environmental Protection Agency. Washington, D.C. Prepared by Michael Elliott, Southeast Negotiation Network. December 1993, p. 31.
16. *Ibid.*, p. 31.
17. *Technical Assistance Grant Program Customer Satisfaction Survey*. Community Involvement and Outreach Center. Office of Emergency and Remedial Response. U.S. Environmental Protection Agency. Washington, D.C. January 1997, p. 21.
18. *Environmental Justice, Urban Revitalization, and Brownfields: The Search for Authentic Signs of Hope -A Report on the "Public Dialogues on Urban Revitalization and Brownfields: Envisioning Healthy and Sustainable Communities."* National Environmental Justice Advisory Council. Waste and Facility Siting Subcommittee. A Federal Advisory Committee to the U.S. Environmental Protection Agency. December 1996, p. 6.

19. *Social Aspects of Siting RCRA Hazardous Waste Facilities*, p. 3.
20. *Ibid.*, p. 13.
21. *Public Participation in Contaminated Communities*, p. IV-30.
22. *Carpet Policy Dialogue Assessment*, p. 44.
23. *Public Participation in Contaminated Communities*, p. IV-30.
24. *Community Environmental Partnership, Baltimore, Maryland: Accomplishments and Lessons Learned - Presentation*. Hank Topper. Office of Pollution Prevention and Toxics. U.S. Environmental Protection Agency. Washington, D.C. April 2000, p. 16.
25. *Evaluation of EPA's Community Based Environmental Protection Efforts in South Florida - Draft*. Prepared for the Office of Sustainable Ecosystems and Communities. U.S. Environmental Protection Agency. Washington, D.C. Prepared by ICF Consulting Group. January 1999, pp. 47-48.
26. *Ibid.*, p. 64.
27. *Public Participation in Contaminated Communities*, p. IV-41.
28. *Assessment of Public Involvement in State SWAP Citizen Advisory Committees and/or Citizen/Technical Advisory Committees. Assessing Advisory Committee Involvement in State Source Water Assessment Programs. Final Summary of Three Telephone Conference Calls*. U.S. Environmental Protection Agency. Washington, D.C. September 1998, pp. 19-20.
29. *Public Participation in Contaminated Communities*, p. IV-23.
30. Andrea Lindsay, Community Involvement Coordinator. U.S. Environmental Protection Agency. Region X. Personal communication. 11 November 2000.
31. *Constructive Engagement Resource Guide*, p. 82.
32. *Analysis and Evaluation of The EPA Common Sense Initiative*. Prepared for the U.S. Environmental Protection Agency. Washington, D.C. Prepared by Kerr, Greiner, Andersen, and April, Inc. July 1999, p. 42.
33. *Ibid.*, pp. 45-46.
34. *Constructive Engagement Resource Guide*, pp. 82-83.
35. *Evaluation of EPA's Community Based Environmental Protection Efforts in South Florida*, p. 43.
36. *Top Ten Watershed Lessons Learned*. Office of Wetlands, Oceans, & Watersheds. Office of Water. U.S. Environmental Protection Agency. Washington, D.C. August 1997. <http://www.epa.gov/OWOW/lessons> (15 May 2000), Watershed Lesson 1.
37. *Evaluation of EPA's Community Based Environmental Protection Efforts in South Florida - Draft*, pp. 42-43.
38. *Ibid.*, p. 43.

39. *Community-Based Environmental Protection (CBEP): Characterization of EPA Regional CBEP Activities. Prepared for Office of Sustainable Ecosystems and Communities.* U.S. Environmental Protection Agency. Washington, DC. Prepared by ICF Incorporated. January 1999, p. 20.
40. *Baltimore Community Environmental Partnership Air Committee Technical Report*, p. 69.
41. *Public Participation in Contaminated Communities*, p. IV-15.
42. *Building the Environmental Capacity of Rural and Small Communities: Lessons Learned from the Technical Assistance for Community-Based Environmental Protection Project - Draft.* Prepared for the National Risk Management Research Laboratory. Office of Research and Development. U.S. Environmental Protection Agency. Prepared by the National Association of Counties. February 2000, p. 29.
43. *Assessment of Public Involvement in State SWAP Citizen Advisory Committees and/or Citizen/Technical Advisory Committee*, pp. 25, 23.
44. *Public Participation in Contaminated Communities*, p. IV-3.
45. *Ibid.*, p. IV-51.
46. *Lessons Learned About Community Involvement*, see East Fork Poplar Creek case study.
47. *Social Aspects of Siting RCRA Hazardous Waste Facilities*, p. 11.
48. *Public Participation in Contaminated Communities*, p. V-15
49. *Constructive Engagement Resource Guide*, p. 83.
50. *Public Participation in Contaminated Communities*, p. IV-18.
51. *Building the Environmental Capacity of Rural and Small Communities*, p. 3.
52. *Baltimore Community Environmental Partnership Air Committee Technical Report*, p. 64.
53. *Local Capacity Building Demo Write Up for OES Sprawl Strategy.* Office of Environmental Stewardship. U.S. Environmental Protection Agency. Region 1. Boston, Massachusetts. March 1999.
54. *Federal Advisory Committee Act (FACA) Subcommittee for Ozone, Particulate Matter and Regional Haze Implementation Programs. Final Report on Subcommittee Discussions Through December 1997.* Prepared for Air Quality Strategies and Standards Division. Office of Air Quality Planning and Standards. U.S. Environmental Protection Agency. Washington, D.C. Prepared by Science Applications International Corporation and EC\R, Inc. May 1998, pp. ES-1 – ES-5, 1-1 – 1-7.
55. *Ibid.*, p. ES-14.
56. *Carpet Policy Dialogue Assessment*, pp. 45-46.
57. *Evaluation of EPA's Community Based Environmental Protection Efforts in South Florida - Draft*, p. 9.
58. *Ibid.*, p. 18.
59. *Ibid.*, p. 17.

60. Ibid., p. 34.

61. Ibid., p. 34.

62. Ibid., p. 34.

63. Ibid., p. 3.

64. Ibid., p. 15.

65. Ibid., p. 35.

66. Ibid., pp. 35-36.

67. *Environmental Justice, Urban Revitalization, and Brownfields*, p. 2.

68. *Environmental Justice, Urban Revitalization, and Brownfields*.

69. *NEJAC - Public Dialogues Report Follow-up*. Fact Sheet. Outreach and Special Projects Staff. Office of Solid Waste and Emergency Response. U.S. Environmental Protection Agency. Washington, D.C. Prepared for the meeting of the National Environmental Justice Advisory Council Waste and Facility Siting Subcommittee, December 11-14, 2000, Arlington, Virginia.

70. *Baltimore Community Environmental Partnership Air Committee Technical Report*, p. 8.

71. *Baltimore Community Environmental Partnership Air Committee Technical Report*.

72. *Building the Environmental Capacity of Rural and Small Communities*.

73. Ibid.

74. *Local Capacity Building Demo Write Up for OES Sprawl Strategy*.

75. *Public Participation in Contaminated Communities*, pp. IV-41, 42.

76. *Lessons Learned About Community Involvement*, see case study entitled "EPA Dunking Helps Wash Out Community Resistance."

77. *Assessment of Public Involvement in State SWAP Citizen Advisory Committees and/or Citizen/Technical Advisory Committees*, pp. 23-24.

78. Ibid., p. 12.

79. *Outreach and Education Activities of the Emission Measurement Center*. Emission Measurement Center. Office of Air Quality and Planning Standards. Office of Air and Radiation. U.S. Environmental Protection Agency. Washington, D.C. March 28, 2000.

List of Evaluations and Reports

Analysis and Evaluation of The EPA Common Sense Initiative. Prepared for the U.S. Environmental Protection Agency. Washington, D.C. Prepared by Kerr, Greiner, Andersen, and April, Inc. July 1999. <http://www.epa.gov/sectors/csi.htm>

An Assessment of EPA's Negotiated Rulemaking Activities. Program Evaluation Division. Office of Management Systems and Evaluation. Office of Policy, Planning and Evaluation. U.S. Environmental Protection Agency. Washington, D.C. December 1987.

An Evaluation of Negotiated Rulemaking at the Environmental Protection Agency Phase I. Dr. Cornelius Kerwin and Professor Laura Langbein, Conference Consultants. Administrative Conference of the United States. September 1995.

A Review of Community Advisory Groups in Region 5: Lessons Learned. Superfund Division. Region 5. U.S. Environmental Protection Agency. Chicago, Illinois. October 1998.

Assessment of Public Involvement in State SWAP Citizen Advisory Committees and/or Citizen/Technical Advisory Committees. Assessing Advisory Committee Involvement in State Source Water Assessment Programs. Final Summary of Three Telephone Conference Calls. U.S. Environmental Protection Agency. Washington, D.C. September 1998.

Baltimore Community Environmental Partnership Air Committee Technical Report. Community Risk-Based Air Screening: A Case Study in Baltimore, MD. Office Pollution Prevention and Toxics. U.S. Environmental Protection Agency and Versar, Inc. March 2000. Contact: OPPT Community Assistance Technical Assistance Team. Hank Topper. Topper.Henry@epa.gov. 202-260-6750.

Building the Environmental Capacity of Rural and Small Communities: Lessons Learned from the Technical Assistance for Community-Based Environmental Protection Project - Draft. Prepared for the National Risk Management Research Laboratory. Office of Research and Development. U.S. Environmental Protection Agency. Prepared by the National Association of Counties. February 2000.

Carpet Policy Dialogue Assessment. Prepared for the U.S. Environmental Protection Agency. Washington, D.C. Prepared by Michael Elliott, Southeast Negotiation Network. December 1993.

Community Advisory Groups: Partners in Decisions at Hazardous Waste Sites -Case Studies. Community Involvement and Outreach Center. Office of Emergency and Remedial Response. U.S. Environmental Protection Agency. Washington, D.C. Winter 1996. <http://www.epa.gov/superfund/tools/cag/resource/casestdy.htm>

Community-Based Environmental Protection (CBEP): Accomplishments and Value-Added of EPA CBEP Projects. Prepared for the Office of Sustainable Ecosystems and Communities. U.S. Environmental Protection Agency. Washington, D.C. Prepared by ICF Incorporated. January 1999.

Community-Based Environmental Protection (CBEP): Characterization of EPA Regional CBEP Activities. Prepared for the Office of Sustainable Ecosystems and Communities. U.S. Environmental Protection Agency. Washington, DC. Prepared by ICF Incorporated. January 1999.

Community Environmental Partnership, Baltimore, Maryland: Accomplishments and Lessons Learned-Presentation. Hank Topper. Office of Pollution Prevention and Toxics. U.S. Environmental Protection Agency. Washington, D.C. April 2000.

Compliance Assistance Centers: FY 1999 On-line Survey Data & Web Trends - Presentation. Office of Enforcement and Compliance Assurance. U.S. Environmental Protection Agency. Washington, D.C. January 2000.

Constructive Engagement Resource Guide: Practical Advice for Dialogue Among Facilities, Workers, Communities, and Regulators. Prepared for the Office of Pollution Prevention and Toxics. U.S. Environmental Protection Agency. Prepared by CRD Associates. June 1999.
<http://www.epa.gov/ooaujeag/sectors/stake.htm>

Environmental Justice, Urban Revitalization, and Brownfields: The Search for Authentic Signs of Hope -A Report on the "Public Dialogues on Urban Revitalization and Brownfields: Envisioning Healthy and Sustainable Communities." National Environmental Justice Advisory Council. Waste and Facility Siting Subcommittee. A Federal Advisory Committee to the U.S. Environmental Protection Agency. December 1996.
<http://www.epa.gov/swerosps/ej/ejndx.htm#nejac>

Environmental Justice 1996 Annual Report (Working Towards Solutions). Office of Environmental Justice. U.S. Environmental Protection Agency. August 1997.
<http://es.epa.gov/oeca/main/ej/ej96annrep.html>

Evaluation of EPA's Community Based Environmental Protection Efforts in South Florida - Draft. Prepared for the Office of Sustainable Ecosystems and Communities -Draft. U.S. Environmental Protection Agency. Washington, D.C. Prepared by ICF Consulting Group. January 1999.

Evaluation of Project XL Stakeholder Processes: Final Report. Prepared for the Office of the Administrator. U.S. Environmental Protection Agency. Washington, D.C. Prepared by RESOLVE, Inc. September 1998. <http://www.epa.gov/ProjectXL/guidexl.htm#4>

Federal Advisory Committee Act (FACA) Subcommittee for Ozone, Particulate Matter and Regional Haze Implementation Programs. Final Report on Subcommittee Discussions Through December 1997. Prepared for the Air Quality Strategies and Standards Division. Office of Air Quality Planning and Standards. U.S. Environmental Protection Agency. Washington, D.C. Prepared by Science Applications International Corporation and EC\R, Inc. May 1998.

Final Report of the Federal Facilities Environmental Restoration Dialogue Committee: Consensus Principles and Recommendations for Improving Federal Facilities Cleanup. Federal Facilities Restoration and Reuse Office. U.S. Environmental Protection Agency. April 1996. <http://www.epa.gov/swerffrr/comminvolve/fferdc.htm> (click on "Final FFERDC Report")

Iron and Steel CSI - Self Evaluation. U.S. Environmental Protection Agency. Washington, DC. November 1996.

Lessons Learned About Community Involvement: EPA Superfund Response Staff Tell How Public Involvement Has Helped Public Clean Up Sites. U.S. Environmental Protection Agency. Washington, D.C. May 1999.

Local Capacity Building Demo Write Up for OES Sprawl Strategy. Office of Environmental Stewardship. U.S. Environmental Protection Agency. Region 1. Boston, Massachusetts. March 1999.

National Advisory Council for Environmental Policy and Technology (NACEPT) Past and Future: A Decade of Stakeholder Advice. Office of the Administrator. U.S. Environmental Protection Agency. Washington, D.C. July 1999. <http://www.epa.gov/ocem/nacept/fullrpt.pdf>

NEJAC - Public Dialogues Report Follow-up. Fact Sheet. U.S. Environmental Protection Agency. Office of Solid Waste and Emergency Response. Outreach and Special Projects Staff. Prepared for the meeting of the National Environmental Justice Advisory Council Waste and Facility Siting Subcommittee, December 11-14, 2000, Arlington, Virginia.

Outreach and Education Activities of the Emission Measurement Center. Emission Measurement Center. Office of Air Quality and Planning Standards. Office of Air and Radiation. U.S. Environmental Protection Agency. Washington, D.C. March 28, 2000.

Project XL Stakeholder Involvement Evaluation -Final Report. Prepared for the Office of Policy, Economics, and Innovation. U.S. Environmental Protection Agency. Prepared by Michael Elliott of the Southeast Negotiation Network under subcontract to RESOLVE and Marasco Newton Group. October 2000. <http://www.epa.gov/ProjectXL/finalreport.pdf>

Public Participation in Contaminated Communities. Nicholas A. Ashford and Kathleen M. Rest. Center for Technology, Policy, and Industrial Development. Massachusetts Institute of

Technology. March 1999.

Regulatory Negotiation Versus Conventional Rulemaking: Claims, Counter-Claims, and Empirical Evidence. Laura I. Langbein & Cornelius M. Kerwin. American University. 20 November 1997.

Social Aspects of Siting RCRA Hazardous Waste Facilities. Office of Solid Waste and Emergency Response. U. S. Environmental Protection Agency. April 2000.
<http://www.epa.gov/epaoswer/osw/mbody.htm>

Summary of Public Participation in FOSTTA. Office of Pollution Prevention and Toxics. U.S. Environmental Protection Agency. Washington, D.C. 23 March 2000.

Technical Assistance Grant Program Customer Satisfaction Survey. Community Involvement and Outreach Center. Office of Emergency and Remedial Response. U.S. Environmental Protection Agency. Washington, D.C. January 1997.
<http://www.epa.gov/superfund/tools/tag/resource.htm>

Top Ten Watershed Lessons Learned. Office of Wetlands, Oceans, & Watersheds. Office of Water. U.S. Environmental Protection Agency. Washington, D.C. August 1997.
<http://www.epa.gov/OWOW/lessons>