

The Principles and Processes of Public Involvement:

A State-of-the-Art Synthesis for Agencies

Venturing Into Ecosystem Management

Abstract:

Today we are faced with the challenge of both developing a working definition of sustainability and implementing this philosophy into our communities. The ability to maintain a healthy environment and economy, integrate scientific and technical knowledge, and pursue a participatory democracy lies at the heart of achieving a sustainable ecosystem. This paper outlines critical elements that should be included in public involvement programs, as agencies implement ecosystem management. Imperative to any program is an understanding of the human values, motivations, and paradigms of the citizenry as well as an understanding of the dynamics of relationships and the structures surrounding government and public interaction. Furthermore, successful integration of the public into the decision-making environment requires building and maintaining trust and cooperation between government agencies, private interests and the public. This is best accomplished by learning and implementing the basic principles of public involvement which serve as a useful guide to foster citizen participation. Finally, consideration is given to the different geographic scales of decisions federal agencies must consider, including ecosystem, regional and local programmatic public involvement processes.

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INTRODUCTION

Natural resource professionals in the twenty-first century will face a continuing critical challenge -- how to accommodate an increasing demand for public involvement in planning and policy making while instituting natural resource management through a sustainable ecosystem approach. The demand for the expanded role of public participation is based on both philosophical and pragmatic considerations. Philosophically, these include the general expectation in a democratic society that individuals have the right to be informed and consulted, and to express their opinions on issues relating to the public commonwealth. Pragmatically, public involvement helps to ensure the public support necessary to develop ideas, promote plans, and successfully implement actions (Sewell 1977).

Although there seems to be a growing acceptance of the necessity of public participation, there remains considerable difficulties in putting the concept into practice. The purpose of this paper is to examine the major principles and processes of public participation that shed light on the common quandaries faced by government officials as they implement public involvement programs. Consideration is given to the different scales of decision making federal agencies must consider, including ecosystem, regional, and local programmatic planning processes. Integrating the public into the decision making environment is vital to successful long-term ecosystem management. This requires building and maintaining trust and cooperation between government agencies, private interests and the public and is best accomplished by learning and implementing the basic principles of public involvement.

Our History

At the core of all public and government interaction in America stands our fundamental convictions in democratic idealism. Thomas Jefferson (1743-1826) espoused the relevance of citizen participation in public decision making and called for greater public education through a free press, debate and open inquiry. As the country has grown, so have our expectations for public involvement matured. Industrialization, urbanization, big government and mass media have further shaped attitudes and belief systems concerning the role of the individual within society and shaped our expectations for society's interaction with government.

In many respects public involvement and resource management have matured together. Shortly after his appointment in 1898, Gifford Pinchot (Head of the US Division of Forestry) released a memorandum advising Foresters of their responsibilities to the public and

acknowledging the need for positive public - government interaction; he noted the necessity of public involvement: *"It is more trouble to consult the public than to ignore them, but that is what you are hired for. " "Public support of acts affecting public rights is absolutely required."* (Strong 1971) Unfortunately, Pinchot's advice was not always observed within his own agency or in others. While government entities often touted the benefits of citizen participation, many agencies were negligent in their efforts to include the public in decision making or worse yet, offered only artificial avenues for participation. This inability or unwillingness to listen or respond to public comment resulted in a lack of trust and a sense of tokenism between the citizenry and government entities.

Increasing disenchantment with resource management and government in general, in the 1960's and 1970's, prompted new demands that a wider spectrum of citizens be given access to the decision-making process. This sentiment was reflected in the legislation of the period, especially the National Environmental Policy Act (NEPA) of 1969, the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA), the National Forest Management Act (NFMA) of 1976, and the Federal Land Policy Management Act (FLPMA) of 1976 (Fazio 1986), which outlined appropriate roles for public participation.

The 1970's not only produced a changing legislative framework for citizen involvement but also forged new perspectives in understanding the relationship between humans and nature and the impacts caused by human activities to the environment. Concerns about the long term viability of public land practices spurred intense public scrutiny and an increase in technical data collection efforts. The role of science and research was elevated as an integral part of land use planning and decision-making. By the 1980's the Forest Service's new perspectives policy espoused an integrated approach to natural resource planning and began to test parameters for ecosystem management.

A New Vision For The Future

By the early 1990's the federal government began to embrace the concepts of ecosystem management and natural resource sustainability. In fact, in 1992, the Chief of the Forest Service distributed a memorandum which stated:

I am announcing... that the Forest Service is committed to using an ecological approach in the future management of national forests... By ecosystem management, we mean that... we must blend the needs of the people and environmental values in such a way that the national forests... represent diverse, healthy, productive, and sustainable ecosystems. I'm

confident that with our knowledge, expertise, and experience along with a stronger public involvement effort, we can bring the American people and their needs together with the land they own in a better way than it has ever been done before by anyone in the world. (Robertson 1992)

The importance of public involvement in defining a sustainable ecosystem was also emphasized in the United Nations World Commission Report on Environment and Development (Our Common Future, 1987). Citizens have important functions in achieving virtually all the key elements of sustainable development: maintaining ecological integrity and conserving the resource base, the pursuit of equity, thinking globally while acting locally, and increasing social self determination (Lerner 1992). In fact, the World Commission on Environment and Development called for all governments to substantially increase financial support for community based planning groups.

Today we are faced with the challenge of both developing a working definition of sustainability and implementing this philosophy into our communities. The ability to maintain a healthy environment and economy, integrate scientific knowledge, and pursue a participatory democracy lies at the heart of achieving a sustainable ecosystem. Conceptual complexity and the tenacity of people make this a difficult quest. That people have beliefs is not the problem: without beliefs and values, there would be little reason for pursuing an actualized society. Yet the ability of humans to learn is frail. We need prudence, inventiveness and persistence (Lee 1993), and a willingness to accept a rate of change that is unparalleled within our past history.

KEY THEORIES IN PUBLIC INVOLVEMENT FOR THE 21ST CENTURY

Historically, change has been closely tied to conflict. The ability to accommodate change and the conflicts inherent in it, is important to the long term viability of our society. At the same time there is a need for order, consensus, and common goals within and between government organizations and the publics they serve (Brown 1983). Effective management of public involvement is critical in designing constructive change processes. It requires an understanding not just of the conditions that potentially create conflict, but more importantly, *the promotion of conditions that create cooperative relationships* (Burton 1993). To facilitate

the kinds of change inherent in ecosystem management while maximizing cooperative relationships with stakeholders, natural resource managers must have an understanding of the theory and nature of public involvement including its human dimensions and the framework for its implementation.

Understanding the Human Dimension of Public Participation.

Human Needs Theory and the Layered Conflict Model

Understanding human motivation is relevant to developing an effective public involvement program. Human needs theory offers a common construct for differentiating those motivations that are socially and politically significant--motivations that are universal in the human species, that are cultural, and those that are transitory (Burton 1990). These three categories are commonly referred to as needs, values, and interests.

Needs will usually be pursued by all means possible. Values are those ideas, habits, customs and beliefs that are characteristic of particular social groups. Interests (and positions) refer to the occupational, social, political and economic aspirations of the individual. A key feature of interests is that they are negotiable; it is possible to trade an individual interest for a social gain (Burton 1990). Understanding public interests plays an important role in developing quality communications. Knowing the distinction between interests that can be traded off, values that can only be changed with difficulty and needs that are not negotiable, is an imperative element in formulating successful land use policies. Public policy managers who rely on interest-based approaches to communicate may find their efforts rejected when confronted with deeply held, culturally defined values that are in conflict with a proposed policy or action. For instance, if a manager believes that the public policy question is simply one of determining how much timber to harvest (*an interest*), he/she may run head long into conflict when people who *intrinsically value* ancient forests step forward to take part in the public involvement process.

Motivations vary for individuals, thus the orientation of government public participation efforts must also. Reactions by parties at the positional and interest levels are inclined to be rational so that government and public stakeholders can use cognitive methods to sort out issues and

POSITIONS:	Political & Strategic	Rational Choice Paradigm
INTERESTS:	Desires & Wants	Rational Choice Paradigm
VALUES:	Learned & Socialized	Non Rational Choice Paradigm
NEEDS:	Basic & Human	Biogenetic Paradigm

Figure 1. Layered Conflict Model -- Laue 1986, Avruch & Black 1991

make decisions about trade-offs. When conflict is perceived through values, responses tend to be non-rational; the result is that people spiral backwards, rehashing past "injustices." Their perceptions of the origins, processes, and outcomes of conflict (with the agency or other public interest groups) include a tangential history that shape their views of present events and more importantly, affect their views towards any future actions (Warfield 1993).

Continuum of Community Relationships.

The dynamic nature of relationships between stakeholders (agencies and publics) often frustrates natural resource managers. Relationships with particular groups can be quite good, then can seemingly change, degenerating into conflict and crisis based interactions. This is often due to the fact that motivations (particularly interest based motivations) are not static. Stakeholder relations frequently move between relationships of cooperation and competition. A tool for examining the roles that interest groups engage in is the Continuum of Community Relations (Laue, Cromick 1978 and Warfield 1993).

COOPERATION	COMPETITION	HEIGHTENED TENSION	CONFLICT	CRISIS
<i>Interests groups engage in:</i> Resource trade-offs.	<i>Interests groups:</i> Challenge the status quo.	<i>Interests groups engage in:</i> Angry exchanges thru media & public forums.	<i>Interests groups:</i> View the status quo as not representative.	<i>Interests groups:</i> Attack the status quo.
Creating values.	Disagree over resource allocation.	Boisterous public meetings.	Pursue lawsuits & demonstrations.	Disrupt public order.
Agreement on process.	Test and stretch existing processes.	Positional, claiming stances.	Regard public process as unfair.	Traumatize policy.
Mutual respect.		Challenging public processes.		Feel public processes are illegitimate.

Stakeholders are always moving along this continuum

Figure 2. Continuum of Community Relations.

Within the continuum various forms of relations between government entities and public stakeholders exist, and often several positions can be occupied simultaneously by different interests within the community. The model presents the complex public environmental arena that natural resource managers must work within, and illustrates that roles and interests can

change over time or can change based on a situational issue. Yet, understanding motivations, paradigms, and roles is just one part of establishing a successful public involvement program. It is also essential to examine the framework in which people participate, i.e. those structures surrounding government and public interaction in decision making.

Framing the Public Involvement Structure

Arnstein's Ladder of Citizen Participation

When citizens discuss their interaction with government entities they often voice a common frustration: they feel that the important decisions have already been made by the agency and the purpose of the involvement program is simply to get the public to "rubber stamp" a decision. This perception has historical merit and was supported empirically by Sherry Arnstein's research in the late 1960's. She discovered that although a variety of avenues for public participation existed, most efforts were "token" opportunities where individuals had no real influence on the outcome of decisions. Arnstein developed a model illustrating the many degrees to which publics can be involved by an agency and the corresponding degree of citizen influence on decisions (Arnstein 1969).

Arnstein's Ladder of Citizen Participation	
8. Citizen control	Degrees of Citizen Power
7. Delegated power	
6. Partnership	
5. Placation	Degrees of Tokenism
4. Consultation	
3. Informing	
2. Therapy	Non Participation
1. Manipulation	

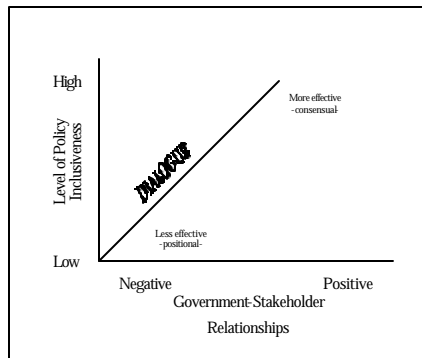
Figure 3. Ladder of Citizen Participation.

The model highlights the importance of structuring public involvement efforts so that there is a true opportunity for the public to influence the decision or proposed action. Token efforts are almost always identified as insincere, produce negative public relations, and do not belong in the future of public involvement at any level of ecosystem management.

The Importance of Public and Policy Maker Relationships

In taking Arnstein's ladder further, a 1993 model (Warfield 1993) built on the idea that there is a positive correlation between 1) the status of government and stakeholder relationships (positive or negative), 2) the degree to which diverse stakeholders are included in decision

making processes, and 3) the type of dialog occurring with stakeholders (positional to consensual). Warfield's model proposed the idea that the degree of effectiveness of dialogue has a correspondingly positive impact on policy inclusiveness, which in turn improves the relationship of stakeholders to policy officials (the opposite also holds true; in less effective efforts dialogue tends to be positional and antagonistic in nature, which means less



inclusiveness in policy implementation and a deteriorated state of relationships). While the model is not meant to present precise correlation (and it is important to note that intervening variables, such as changes in political administrations, can impact policy inclusiveness) it does effectively demonstrate the importance of including the key publics in effective dialogue in successful policy implementation.

Figure 4. Policy Inclusiveness & the Status of Relationships.

Planning for the Future

The role of social learning and transactive planning.

Historically, the social and political adjustments that changing ecological circumstances require have been resisted. Change has been denied, in part, because it implies the need to adjust systems to people, rather than the other way around. Today, there is a potentially disastrous gap forming between conditions that create public conflict (ecological and economic degradation) and pro-active steps taken by government to deal with them (e.g. land use allocations, policies, or even successful, participatory public involvement programs) (Burton 1993). Based on a few key theories, a new framework for public involvement in ecosystem management can be constructed which includes ways to deal with the interests, values and needs of stakeholders. This framework must maximize positive agency - stakeholder relationships, the degree to which public stakeholders are included in decision making and the quality of the dialog occurring with the public. A new framework must also incorporate the wealth of scientific and technical data being forwarded in environmental research. The transactive planning and social learning models (described below) provide a conceptual basis from which public involvement programs can be built for ecosystem management.

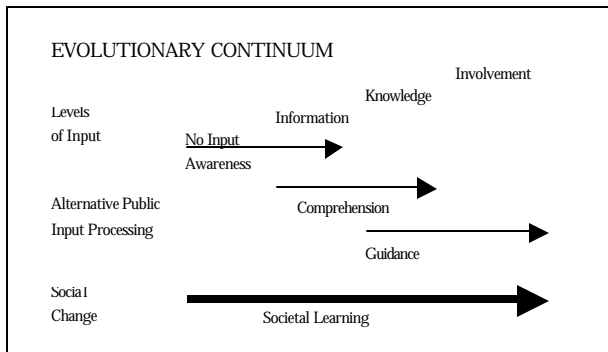
Transactive Planning

No discussion of public involvement frameworks would be complete without discussing transactive planning (Friedmann 1973). Transactive planning is a model for community planning which is highly interactive and links knowledge to action by a process of mutual learning between experts and the public, in which inter-personal relationships acquire central importance. The primary mode of communication in transactive planning is dialogue; it is through dialogue that knowledge becomes consciously established in the matrix of ongoing activities. The idea that society requires the technical expertise and the guidance of institutions that are responsive to the needs of public (Friedmann 1987) is based on the idea that we must learn from one another by joining scientific and technical intelligence with personal knowledge and values at critical decision points.

Transactive Planning revolutionized public involvement by emphasizing to policy-makers that information brought forward by the public was as critical to the decision process as information forwarded by "experts." The theory has several underlying concepts, but the three components that must occur if the essential linkage between knowledge and action is to be established are: 1) dialogue, 2) mutual learning, and 3) societal guidance. *Dialogue* places emphasis on person centered (face-to-face) communication (such as in public task forces or workshops). *Mutual Learning* is the process in which processed knowledge of the expert is related to the personal knowledge and values of the public in the joint exploration of problems and possible solutions. If mutual learning is effective it can produce the necessary *Societal Guidance*--a combination of downward control (from the agency) and upwards consensusformation (with the public).

Social Learning

Building on the concept of transactive planning and societal guidance, Force and McLaughlin (1982) noted that as social change becomes a recognized outcome of land use planning, managers and planners will more often serve as *social change agents* (those key individuals who determine how to include the public in defining what societal changes should occur). Because several alternatives for public processes and levels of input exist, the change agent must determine what type of public involvement processes support societal change. These processes need to incorporate social learning--a dynamic process in which an individual



becomes aware, comprehends and ultimately gains an ability to evaluate knowledge for decision-making.

Figure 5. Conceptual Framework for Public Processes

Lee (1993) further emphasized that exploring the human aspects of ecosystem management is imperative. This exploration results in *Social Learning* when political change is formulated by accepting policies as experiments, structuring them commensurably and learning from them as they are applied (adaptive management). Social learning is urgently needed in large ecosystems that are divided among multiple jurisdictions. This government/public interdependence highlights the importance of learning from one another and is a vital element of achieving long term viability. Learning and effective administration are contingent—if social learning is going to occur in a durable fashion it must be reflected in public involvement policy and those principles that govern interaction. Human action affects the natural world in ways we do not sense, expect, or control, yet being able to do so lies at the center of achieving sustainability (Lee 1993).

KEY PRINCIPLES IN BUILDING A SUCCESSFUL PUBLIC INVOLVEMENT PROGRAM

- Clearly State Goals & Objectives
- Plan for Effective Dialogue
- Build Cooperation Constructively & Deliberately
- Emphasize Education & Social Learning
- Diversify The Public Involvement Framework
- Be Open, Honest, & Responsive
- Understand the Multiplicity of Publics & Techniques
- Use a Third Party Intervener when Necessary.
- Establish a Framework for Continuing Dialogue
- Analyze, Evaluate & Monitor

Figure 6. Principles of Public Involvement

In theory, government retains all decision making authority on public policy decisions for federal lands. However, as the human population grows, technology changes, and as pressures to use the environment increases, citizen acceptance or rejection of proposed land use policies will become an ever more critical component of policy implementation. The struggle to define how resources will be used has become increasingly evident in the past decade and is illustrated by the phenomenal growth in litigation over land use practices. In recent years, citizen organizations have multiplied in numbers and increased their involvement with federal

agencies in order to influence and shape policies and procedures. Distribution of written materials fostering citizen power such as "How to Appeal Forest Service Decisions" (Wilderness Society 1989) has also increased. Unfortunately, the culmination of these efforts has often resulted in a political deadlock with citizen groups struggling against one another, leaving no clear path for public policy to follow.

Public involvement practices for the twenty-first century will require new and different skills and perspectives on the part of both the citizens and the federal land managers. For public involvement to be effective, it will be essential to build upon a set of principles that can serve as a useful guide under any of the wide variety of circumstances present in natural resource management. The following principles define key elements necessary to foster citizen participation to achieve sustainable ecosystem management.

Clearly State Goals & Objectives

Overall the level and form of participation will hinge in part on a few critical components that help clearly define what it is that the agency wants to accomplish through the public venue. An effective and efficient program needs to be tailored to the level of government and nature of the issue being considered.

Identifying what the agency wants to accomplish.

Identifying why public involvement is needed and what is desired from it is crucial to the success of any program. An effective citizen participation process involves the appropriate use of different forms and techniques to accomplish various purposes. Clearly defining and articulating the purpose and goals of a public involvement program is often overlooked. For instance, is the goal to give information to citizens, to obtain information from or about citizens, to generate issues or to generate solutions? Once these decisions are made then a program can be constructed so that all public activities logically relate to these goals.

Determining how much public participation is possible, on what issues, and at what stages in the decision making process participation is desirable.

There are a variety of issues that compete for public attention. Routine matters require little or no direct inputs while strategic matters typically involve conflicts between interests and thus require a higher level of participation. It is neither useful nor feasible to consult every individual on each issue that may be of interest (Sewell 1977). The challenge is to find the array of issues where inputs from legitimate interests would lead to higher levels of social

satisfaction and guidance. It is also important to note that progressively higher levels of participation may not lead to progressively higher levels of social satisfaction (Wengart 1971). Programs need to be constructed so that they optimize benefits for both the citizens and the government and minimize costs. Legislative guidelines provide direction for determining the appropriate level of participation as do other factors such as budget, expediency of decision, and the level of public interest in the issue being considered.

While some level of citizen participation is appropriate at all stages of government decision-making, the widest range of participation usually occurs at the recommendation, adoption and implementation stages of the decision making process. However, it is also critical to provide ample opportunities for participation at the earlier goal setting and problem definition stages. Traditionally, the fewest opportunities for public involvement occur at the fact finding research stage, and at the stage in which alternatives are developed. The high degree of expertise needed at these stages sometimes limits the amount of participation. It should be recognized, however, that "experts" have no monopoly on creativity and in fact narrowly defined professional training can, on occasion, restrict the vision necessary for developing a full range of alternatives (Advisory Commission Report 1979).

Deciding who should participate.

Ideally, the process of decision-making should take into account the views of all those who have a legitimate interest in the matter at issue. Sometimes it is clear who those individuals are, and other times, particularly in ecosystem or regional level decisions, it is very difficult to identify all legitimate interests. Typically, reliance is placed on interest groups and concerned individuals who make their views known. Unfortunately this can exclude substantial minorities who fail to participate, for one reason or another. It is also important to note that citizens who are drawn to the participation processes very often are not representative of the general citizenry--they tend to represent specialized interests or concerns. Determining who the proposed project will impact, as well as asking the question "who will care about these perceived impacts?" can lead to a snowball approach for identifying potential legitimate interests.

Plan for Effective Dialogue

Effective public dialogue is the result of a deliberate effort to design a course of action that removes the causal conditions of conflict while promoting a positive environment conducive to collaborative relationships. A crucial element in planning effective dialogue is providing

"institutional focus" on an issue. Problems tend to leap suddenly into public prominence, remain there for a short time and although perhaps unresolved, fade away, to be replaced by other problems which are perceived more urgent (Downs 1972). This brief political attention is enforced by mass media and is not easily overcome. To find lasting solutions for land use planning problems, a shift in paradigm must be sought within the agency and the citizenry—a slow and time-consuming process. Thus an essential responsibility for experts and government personnel is to work towards maintaining both public and agency focus on an issue until that issue is resolved and change is in place.

The political task that precedes problem solution (through negotiating or dialogue) is to organize contending parties so that each is able to deal with the others (Lee 1993). The major difference between traditional forms of public involvement and those required for our future is the level of true collaboration and involvement of non-decision makers with the decision making authorities (Crowfoot 1990). Developing a framework for dialogue entails a nontrivial effort to organize the parties so that they can enter into some relationship with one another beyond opposition. The goal is to provide clear decision processes (whether autocratic, majority rule, or consensus) so that questions of means (or cause) can be addressed successfully.

Build Cooperation Constructively and Deliberately Over Time.

Quality relationships require a gradual, consistent and deliberate effort. Government/public cooperation needs to increase if sustainability is to become an integral focus of land use planning. As sustainable approaches to natural resource management are sought a new time continuum for planning must also be implemented. It will no longer be pragmatic to plan for periods of 10 - 50 years, planning vision for ecosystems must incorporate the needs of future generations and will require extending the planning time frame to at least 50 - 100 years. Public involvement activities therefore, must be designed as part of an integrated long term process. Each action will need to be thought of and designed as part of the larger (and longer) planning process; not as a separate, unique and isolated function. Time, foresight and vision will be required in establishing crucial long-term cooperative relationships between government representatives and the public.

Emphasize Education & Social Learning

Understanding and learning about the human dimension of natural resource management is a key function of all public involvement processes and the role for experimentation, research, education and learning needs to be expanded within the public realm. The translation of science to the public is important if behavior is to be influenced, but so too is it important to infuse technical data with public reality, public values, and creative responses. Public involvement as a process is itself a means of tackling methodological problems of research and discovery. Parties interacting within a facilitated and analytical framework are questioning assumptions, challenging preconceived notions and perceptions, and thus making discoveries, not only about their own situation, but also about human behavior in general. The ability to join scientific and technical information with personal knowledge and values, to explore the world as rapidly as knowledge can be gained, and to change environmental policies commensurably is critical to the success of ecosystem management (Lee 1993).

Diversify The Public Involvement Framework

Deliberately fostering diversity--learning in many different places, each supported in a different way or through a separate activity--enhances the chances that important lessons can be learned within the process (Lee 1993) and that societal guidance for achieving sustainability will emerge. Effective citizen participation processes involve the appropriate use of different forms of public activities and participation techniques at key stages in governmental activity. Currently some 31 different forms of participation have been used to foster agency/public contact (Advisory Committee Report 1979). The results of various studies indicate that no one public involvement activity is in itself adequate and that a combination of several participation techniques are usually required to successfully implement public policies (Sewell 1977).

Maintaining a variety of ways to *disseminate information* (such as open government meetings, conferences, publications, mass media, displays, exhibits, mail, advertising and notices, hot lines, drop in centers, electronic bulletin boards, correspondence, word of mouth), and pursuing a variety of forms of *information collection* (hearings, workshops, meetings, conferences, consultation, research, participant observation, surveys, etc.) is critical to the success of a public involvement program. As the geographic area for natural resource management expands (for instance, from a forest timber sale to a watershed) so too does the number of legitimate public interests who need to be informed of potential actions that may affect them. The mix of individuals involved and the mix of their level of involvement expands as ecosystem management is coordinated. Attitudes towards having a multiplicity of

land managers involved (i.e. government agencies, tribes, and state, and local agencies) has traditionally been viewed as a negative. However with the future expanding population base, the benefits of having a variety of agencies pursue a variety of means to reach the public will be an advantage.

Be Open, Honest, & Responsive

Truth and honesty are an integral part of a public involvement program; if lacking, the effort will result in tokenism, mistrust and often lengthy appeals / litigation. Ensuring that there is a clear definition of purpose in every agency action taken in the public sector and that there is an honest opportunity for the public to participate in the decision-making process, helps to legitimize decisions and develops crucial public support for agency projects. Internal approval and support for taking an issue before the public should be sought prior to any public involvement.

To maintain public cooperation for agency activities, citizens need to feel that they are informed about how and why agency decisions are made. Developing and following a decision process is critical to the success of a public involvement program. Stating clearly (in writing) how information gathered will be used in helping to form decisions - how decisions will be made, when decisions will be made, and by whom is a critical component and ensures that all participants (agency and public) understand at the onset of a process how information will be gathered and used. Processes should not be started and stopped arbitrarily. If changes are necessary, they should be discussed with the public and a mutual understanding about how the process is to be modified should be developed.

Understand the Multiplicity of Publics and Public Involvement Techniques

More than 150 years ago Alexis de Tocqueville (1835) observed that Americans band together in voluntary associations with unusual frequency. This is as true today as it was then. The public is actually many publics. Citizens who are drawn to the process are not necessarily truly representative of the general citizenry--they tend to represent special interests or concerns. Processes should account for the major forms of citizen participation including *organizational forms* (citizen groups, special interest groups, specific program clientele groups, official citizen committees) and *individual forms* (voting, program client, making statements, working in public projects, campaigning, lobbying, administrative appeals, going to court, demonstrations). Consideration should also be given to the internal public, that is to

those individuals within the agency; these individuals are often overlooked and can dramatically influence the success or failure of a proposed action.

Deciding how to most effectively achieve communications is a critical element of public involvement programs. The techniques associated with public participation should be related to the goals for involvement and the characteristics of the publics. Being familiar with the many channels of communication available and remembering to diversify efforts is essential. A recommended list of sources which depict techniques and approaches used in conducting effective public involvement processes is attached in Appendix A.

Use a Third Party Intervener when Necessary

Traditionally it has been held that with good-will, parties to a dispute can settle their differences by negotiation and compromise. As we move towards ecosystem management this may hold true less and less. The complexity of multi-public, multi-agency negotiation compounds issues and in some cases third party intervention may be needed to help dialogue, and to move toward an informed consensus (Burton 1990, Warfield 1993, Lee 1993). A third party can play an important role, helping the parties to organize and facilitating interaction) among them thereafter. The third party may also provide mediation, negotiation or arbitration on controversial issues. Neutral and active facilitation will become more important as groups with different value systems struggle over the appropriate use of resources. By using a third party approach the agency demonstrates a concern for equitable solutions to public problems. (Warfield 1993).

Establish a Framework for Continuing Dialogue

The future belongs to those who prepare. No public involvement process should seem to start and stop arbitrarily, rather the process should be viewed as a continual program in which there are peaks in activity and quieter times. Feedback loops are essential and will remain an important part of public involvement programs in the future. In order to successfully manage ecosystems, agencies will need to think of public involvement efforts as an ongoing dynamic part of the larger decision making process. Assuming that decisions will become less incremental in the future, and will reflect a unified vision for the ecosystem then so too must public involvement efforts be part of the long range vision, flowing from one inter-linked decision to the next.

Analyze, Evaluate & Monitor Public Involvement Efforts

A public involvement process is not complete until responses have been analyzed, the program has been evaluated and monitoring is underway. It is important to note that analysis and evaluation are not the same. Analysis is the description of the nature, content, variation, and extent of public input, while evaluation is the subjective interpretation and weighing of all data that have been collected and analyzed for the purposes of making a decision (Hendee 1977).

Analysis can include a variety of methods including content analysis, analysis of existing data, participant observation and survey research. On the other hand, evaluation seeks to determine how well the objectives of the program have been met. It provides a factual basis for corrective adjustments to guide both managers and the public to achieve their goals. Once a program has been implemented it is necessary to determine if 1) the targeted public was reached and to what extent, 2) was there adequate response, and 3) what is the long range impact for the agency (i.e. are there lasting effects such as changed behavior or support for a policy). It should be apparent that unless the goals and objectives were clearly stated for the process there really is no way to know what to look for as end results.

The agency must also be responsible for providing public assurance (so the public knows that they have been heard) and ensuring the legalistic components (i.e. meeting the legal requirements for public involvement). Monitoring data should become part of the feedback loop to the public. For example, in the Bob Marshall Wilderness (USFS Montana) monitoring results are compiled into periodic reports and sent to interested publics to ensure continued public participation (Stankey 1984), this promotes social learning and knowledge sharing, and prepares the public for potential future actions.

SCALES OF PUBLIC INVOLVEMENT

Findings from a variety of experiments in public participation suggest that, in general, the level of public interest on issues is variable and is often dependent on the scale of conflict or resources involved (Sewell 1977). At the local district level, where individuals can see their interests directly affected, they often take an enthusiastic interest. At the regional level, however, a much smaller proportion of the public likely to be affected takes interest, possibly

because the issues are too remote and the difficulties of identifying the likely effects on individuals is too great. For example, it is easy to visualize the effect of a human-waste carryout regulation at a favorite campsite, whereas a general rise in the level of pollution (which might have no readily observable Visual effects) is much more difficult to envision. At the ecosystem scale the expressed level of interest declines as the effort of imagination increases (Sewell 1977).

Geographic scale is not the only factor which can effect the level of public interest. Many issues, especially those which arise in planning and in environmental matters, are often technical and complex. It has been argued that some issues are beyond the capacity of the individual to grasp, at least beyond the local scale. In fact, many environmental issues may be beyond the grasp of those who must make the decisions (Sewell 1977). The level of understanding can be improved by education (social learning), and a great deal of effort is given to presenting issues in ways so that they can be readily mastered by the public. Unfortunately, considerable simplification is often necessary to ensure comprehension and this may leave the public with a false picture of the complexity of the issue at hand. Knowledge and understanding are inextricably linked and too often even a high level of interest is accompanied by a low level of knowledge and comprehension. Information and the ability to learn is of critical importance, whether about the very existence of an issue, its nature and seriousness, about the course of actions that are feasible or about the likely consequences (Sewell 1977).

Public Involvement Within Ecosystem Management

Ecosystem planning requires attention to goals, the public interest, key stakeholders, and political processes (Slocombe 1993). Environmental questions are complex and often lack definitive answers, thus conflicts involving ecosystems can become stymied (Lee 1993). Ecosystem management forces us to plan (and learn) across a plethora of boundaries, both political and geographic, and expands the time frame for information collection, action, evaluation and monitoring. In the long run sustainable ecosystem management relies on the principle of stewardship--the blend of respect for nature, interest in a healthy environment and economy, and a concern for future generations. No one person, group, or agency can successfully serve as steward; the significance of environmental stewardship lies in the concrete actions of thousands if not millions of individuals (Lerner 1992). The role of the agency is then to chaperon this stewardship, to help society maintain a focus on sustainability

issues, and to usher in an era where public participation and scientific and technical expertise are combined to formulate societal guidance.

Coordinating Public Involvement Efforts

The multiplicity of resource managers will play an increasingly important role in guiding future public involvement. Differences in mandate, responsibilities and geographic boundaries are the reasons for coordinating public involvement and should not become the barriers to it (McCoy 1994). The mix of individuals who will be involved and the mix of their level of involvement expands as we accept and coordinate ecosystem management efforts. In these differences in responsibilities and skills lie the strengths in achieving sustainability.

A principle goal should then be to develop a shared vision that incorporates the multiplicity of publics, experts, and land managers, and results in a dynamic construct capable of guiding the wide variety of activities present in natural resource management. This vision, should include a society in which the general interest is as well represented as special interests and in which average citizens play a decisive role in decision making (Yankelovich 1991). Simple activities such as holding annual inter-agency public involvement coordination meetings will help in accomplishing this goal; as will increasing efforts to incorporate the interests and values of the expanding number of internal publics.

Continual Learning through Increased Communication and Information Sharing

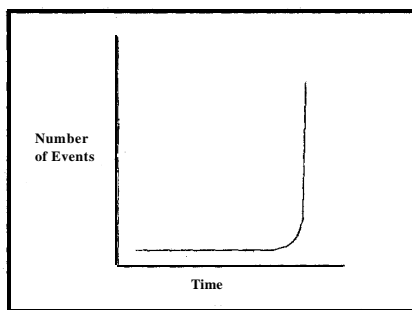
The impact of shifting paradigms (from utilitarian to sustainability) affects how the public evaluates trade-offs between short term interests and long term goals. Social learning is urgently needed in large ecosystems which are divided among two or more governing jurisdictions and a multitude of publics. Accepting and understanding this interdependence is a vital element of sustainability and a necessary goal for any public involvement program. Emphasis must be placed on the importance of learning from one another to ensure the long term viability of an area and to form the necessary links between public interest, knowledge, comprehension and action.

The development of shared data bases will become increasingly important in the future. Sharing data storage on simple key elements such as use figures, water quality, habitat areas, etc., should begin (or be increased) today. Information extension should also be diligently pursued (i.e. sharing technical expertise/knowledge with the public) as should information exchange (with other agencies and the public). These exchanges could be facilitated through simple activities such as combining inter-agency mailing lists, jointly planning newsletters,

mail surveys, or response forms. Public involvement, and the conflict that may accompany it, can either enhance or prevent learning. The public spotlight can, on occasion, thwart the learning necessary to reach sustainability, yet it is this same public interest that is indispensable in defining sustainability over time (Lee 1993).

Accommodating Conflict in an Era of Exponential Change

Government seems not to acknowledge, even after problems are out of control, the dynamic way in which the environment of conflict gets out of control (Burton 1990). The progression of conflict in land use planning can be illustrated by using an exponential change curve. With exponential change, there are, at first, imperceptible movements. No special attention is given to the few problems that arise. Then there appears to be an increase in the rate of change which attracts attention, but usually, only when it is too late to make adjustments (see Fig. 7).



The time span of perceptible change in any phenomenon becomes progressively shorter. What is hardly perceptible, or acceptable at first, suddenly becomes dramatic and unacceptable (Burton 1990). A variety of environmental conditions can be explained this way such as rates of exploitation of resources, population, or air and water pollution. Less conspicuous are the

Figure 7. An exponential change curve by-products of such changes, such as employment rates, human longevity and wildlife populations; these in turn further promote an environment of conflict. Decision-makers have been slow to recognize the environment surrounding change. Dealing with problems only when they emerge is not the answer to the kind of exponential futures society now faces. To achieve sustainability, there must be prediction, prevention, and an ability to adjust to change quickly and effectively (Burton 1990).

Public Involvement Within Administrative Regions

Currently, agency structure is oriented into regional administrations. Decisions being made at a regional scale are important to capture cumulative effects and to ensure that the terrestrial aquatic linkages and interactions are established (Slocombe 1993). It should be recognized

that current regional designations are artificial constructs with boundaries that are usually different for each agency. It should also be recognized that problems that arise in ecosystem management will not necessarily respect these artificial regional boundaries. In the future, the primary decision-making authority may not rest at the regional level; instead agencies may find the need to make decisions about resources at an "ecosystem administrative level," where science, public input and policy-making more logically blend. The main focus of public involvement efforts within the new areas should be to coordinate planning and policy efforts throughout the ecosystem. As with all citizen participation processes, public involvement has to be tailored to the scope of issues being considered. Managers should seek to reduce redundancies and pursue a holistic inter-agency approach.

Public Involvement Within Local Areas (Programmatic Planning)

Local programmatic planning has traditionally been a hotbed for public participation and will continue to be a very active arena. Citizens will always be interested in public policy decisions that affect resources in their backyard. What will change, as management shifts toward a more sustainable approach, is how these "backyard" decisions intertwine with the management of the larger ecosystem. Educational efforts to promote social learning will need to be greatly expanded at the local level. No longer will it be a "simple" debate over whether timber should be harvested in a specific area; rather, all issues will have to be addressed in terms of the larger ecosystem considerations such as what priority is to be given to long term viability of threatened and endangered species like the caribou, grizzly, and gray wolf. In the future, the creative use of public involvement will be planned so that it builds upon the base of understanding and trust gained at the local level. Fostering inclusion of local publics will allow regional level or basin-wide planning groups the opportunity to more quickly and effectively operate as a cohesive unit.

CONCLUSION

Our society stands now on the cusp of decision: Will our common destiny lie in achieving a sustainable society and if so, how will the philosophy be implemented? This is the time for reevaluation, for pursuing a vision of democracy that recognizes that the highest expression of

human rationality does not simply lie in acquiring technical knowledge and expertise but is found in ordinary people speaking and reasoning together on issues of common concern (Yankelovich 1991). To achieve a sustainable lifestyle we must blend the needs of the people with the needs of the environment and make our choices wisely. For the public to weigh choices effectively, it is necessary to emphasize the social values implicit in choices as well as the technical and scientific considerations. This can best be promoted in land use planning, through a system of social learning, and adaptive management.

When science yields viable alternatives for resource decisions that can be carried out within the realm of public acceptability, action should be taken by government. The form or content of the action may vary but the imperative to act does not (Yankelovich 1991). Problems that relate to social stability and human survival are not solved in the absence of an explanatory or preventive approaches to them (Burton 1990). Government must not only grasp the connection between improving the 'quality of public involvement and achieving sustainability, but government must provide the leadership necessary to produce societal change. Ecosystem management will succeed only if government agencies can accept their role as social change agents. Land use agencies must be able to identify and maintain a sharp focus on ecosystem issues and develop a successful plan for effective public dialogue on these issues.

This paper has outlined some of the critical elements that should be included in public involvement programs. Imperative to any program is an understanding of the human values, motivations, and paradigms of the citizenry as well as an understanding of the dynamics of relationships and the structures surrounding government and public interaction. Furthermore, successful integration of the public into the decision-making environment is best accomplished by building upon those public involvement principles which serve as a useful guide to foster citizen participation. Finally, agencies must also consider the scale of decisions including ecosystem, regional and local programmatic public involvement processes. Environmental questions are complex, developing and following a successful public involvement program will never be a simple task; the tools that we have are science and democracy. Societal change often comes at the price of conflict and strife, yet those who profess to favor freedom and yet reject agitation are "men who want crops without plowing the ground" (Frederick Douglass). Today, we are faced with the task of both developing a working definition of ecosystem management and sustainability, and implementing these ideas quickly into our lifestyles, communities, and government. The cost of treating the

symptoms of environmental based public conflict by traditional means are more than our future generations can afford. The totality of environmental conditions to which humanity must adjust, or finally succumb relies on our ability to develop new skills and perspectives on the part of both the citizens and federal land managers.

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APPENDIX A

SOURCES OF PUBLIC INVOLVEMENT TECHNIQUES AND METHODS

SOURCES OF PUBLIC INVOLVEMENT TECHNIQUES AND METHODS

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