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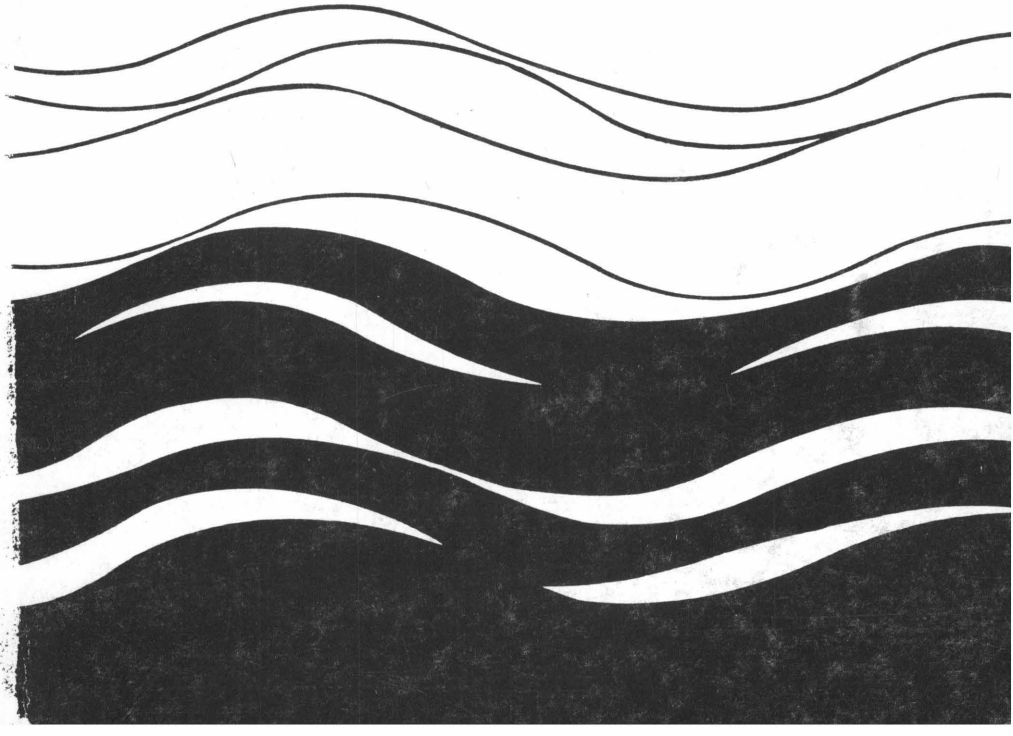

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Social Feasibility As An Alternative Approach to Water Resource Planning

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ABSTRACT

This research examined the approaches of 31 states to including public participation in water resource planning and reviewed the available literature on the subject in order to evaluate (1) the nature and extent of public participation in this area and (2) the compatibility between citizen involvement techniques and policy types. It found a wide gap between the advice on public participation offered by the literature and current state participation programs. The literature suggests consulting a wide number and variety of citizens and interests, involving participants throughout the planning process, utilizing several different types of techniques — especially those requiring dialogue between planners and the public — and allowing citizens to help evaluate and select plans. The current pattern of public participation in water resource planning, on the other hand, consists of participation by limited numbers, in limited ways, at limited points in the process.

The research suggests that conflict over public participation in water resource planning is due, in part, to confusion over the nature of the policies involved. Based on these findings, two models to bridge the gap by incorporating greater consideration of policy type into water resource planning are offered: (1) Social Feasibility Model and (2) the Political Feasibility Model. The report suggests that, although the Political Feasibility Model has been widely accepted in water resource planning, planners have not understood that social and redistributive policies involving value conflicts are best chosen through the Social Feasibility Model. The report also offers guidelines for implementing the Social Feasibility Model.

Key Words: public participation, water resource planning and management

INTRODUCTION

Interest in and demand for increased public participation in administrative decision making surged during the late 1960s and early 1970s. As the first burst of enthusiasm faded, however, planners became aware that Sherry Arnstein's comment comparing the implementation of public participation to eating spinach was accurate: everyone agrees it is good for them, but no one enjoys it.[1] Developing and implementing an effective public participation program is difficult. As a result, planners and the planning literature shifted their focus to technical issues. Water resource planning became project selection, financing, and construction involving a very limited range of actors and interests. Many plans developed in this manner failed to achieve acceptance,[2] however, leading David Harrison to comment that the water resource planning process lacks a constituency to support it.[3] This lack of constituency may be one reason it is increasingly difficult to obtain funds for both water planning and water development.

Recently, there has been renewed interest in the general concept of public participation.[4] Shifts in federal and state policies also suggest a need to re-examine the theory and practice of public participation in water resource planning and management. New federal requirements mandating greater local financial support of new projects have led the Corps of Engineers to re-evaluate its planning procedures because "local governments and other non-federal participants will consequently demand a larger say in project planning and priority setting."[5] It may be, as Warner stated, that public involvement is what will allow water resource planning to develop the constituency Harrison argues it lacks.[6]

Public participation cannot help achieve that goal unless it finds an accepted place in water resource planning and management. This report endeavors to increase acceptance of citizen involvement in water resource decision making by re-examining public participation's role in the policymaking process. It will investigate the theory and practice of public participation in the area of water resources, provide a potential explanation of why theory and practice appear to conflict, and describe two models of public participation appropriate to different types of policies: (1) the Social Feasibility Model and (2) the Political Feasibility Model.

I. The Social Feasibility Model

The Social Feasibility Model requires planners to begin with the "social system, and work through the engineering system and the political

system to accomplishment rather than have the social factors as the last to be taken into account, if at all."[7] Social feasibility means incorporating community values and concerns into water resource planning, and its most appropriate foci are social policies (those requiring choices concerning the allocation of scarce resources among competing needs) and redistributive policies (those transferring benefits from one interest to another). It does not mean citizen control of the planning process or removal of ultimate authority for plan selection and implementation from planning professionals.

Pitkin's concept of substantive representation provides a good model. Pitkin's idea of substantive or political representation suggests a way of combining technical expertise and social values:

> The substance of the activity of representing seems to consist in promoting the interest of the represented, in a context where the latter is conceived as capable of action and judgment, but in such a way that he does not object to what is done in his name.[8]

It is up to a representative, she argues, to act independently in his or her constituents' interest, "yet not normally conflict with their wishes."[9] Political choices are not arbitrary matters of indifference, but neither are they solely questions of knowledge. Instead, "they are questions of action, about what should be done, consequently they involve both facts and value commitments, both ends and means."[10] This fact means there will be tension between independence and accountability in the representative's role. This tension is very visible in the actions of elected officials. However, as more and more legislation delegates authority to administrative agencies, this tension between independence and adherence to citizens' wishes has begun to be felt by administrative personnel as well. Adherence to substantive representation will require planners to solicit, understand, and incorporate community values into a water resource project or plan. At the same time, this view allows planners to assume a leadership role by arguing that administrative independence also is part of delegated authority and to suggest areas in which technical expertise should dominate choice among options. Understanding of roles at the beginning of the planning process can prevent many conflicts during what probably will be a long process of value clarification, alternative evaluation, and plan selection. It also will help planners see public participation as a help rather than as a hindrance to the accomplishment of their responsibilities. Planners listen to citizens, keep them informed, and do not try to force adoption of plans that the community opposes. However, unanimity can never be achieved, and final choice must rest with the planner. In addition, even with the best public participation program, not all will be willing

or able to participate. Allowing citizens to dictate final choices would be an abdication of professional responsibility and could allow small but vocal segments of the public to dominate the decisionmaking process.

II. The Political Feasibility Model

On the other hand, the most appropriate arena for the Political Feasibility Model may be decisions involving distributive and regulatory policies. Depending on the issue involved, this model begins with the political system to work out an accommodation among competing interest groups (distributive policies) or with technical experts who represent citizens and reach decisions based on the community's best interests (regulatory policies). This model substitutes representation by groups for direct citizen involvement. The Political Feasibility Model rests on the assumption of pluralism that democratic values can be preserved in a system of multiple, competing elites who determine public policy through bargaining and compromise. Pluralism is the dominant American political theory, and politicians, planners and administrators often adopt its emphasis on group rather than individual participation in policy making. They also often adopt pluralism's view of the public interest: that policy around which a consensus forms.

Disagreements over the nature and extent of public involvement seem to arise most frequently when planners try to handle social and/or redistributive policy issues according to the Political Feasibility Model. The concluding section of this report will provide some guidance on developing a consistent public participation program based on the type of policy issue that would allow water resource professionals to better incorporate social as well as political and technical realities into their water resource planning programs.

III. Footnotes

1. Sherry Arnstein, "A Ladder of Citizen Participation," *Journal of the American Institute of Planners* 34(1969): 216.

2. One often-cited example is the *Brandywine Plan. The Brandywine Plan* was developed in 1966 by the Institute of Environmental Studies of the University of Pennsylvania. The plan's purpose was to develop a comprehensive watershed protection strategy to protect water supplies in a rapidly suburbanizing area from agricultural nonpoint source pollution. Planners employed an innovative public awareness program but failed to

achieve public support, because the community's ideas and values were not incorporated into the plan.

3. David Harrison, "Do We Need a National Water Policy Process?" (report submitted to U.S. Department of the Interior, December 1981), S-5

4. See, for example, H. George Frederickson and Ralph Clarke Chandler, eds., "Symposium on Citizenship and Public Administration," *Public Administration Review* 44(Special Issue, 1984); Benjamin Barber, *Strong Democracy: Participatory Politics for a New Age* (Berkeley: University of California Press, 1984); Harry C. Boyte, *Community is Possible: Repairing America's Roots* (New York: Harper & Row, 1984); Matthew A. Crenson, *Neighborhood Politics* (Cambridge: Harvard University Press, 1983); and Guy Gran, *Development by People: Citizen Construction of a Just World* (New York: Praeger Publishers, 1983).

5. John F. Wall and Kyle E. Schilling, "The Corps of Engineers: Planning to Meet the Financing Challenge," (March 1985),1.

6. Katherine Warner, *Public Participation in Water Resources Planning* (Washington, D.C.: National Water Commission, 1971), 159.

7. Roy Burke, James Heaney and Edwin Pyatt, "Water Resources and Social Choices," *Water Resources Bulletin* 9(June 1973): 443-447.

8. Hanna Pitkin, *The Concept of Representation* (Berkeley: University of California Press, 1967), 155.

9. *Id.,* 165.

10. *Id.,* 212.

PUBLIC PARTICIPATION IN THEORY

The first step in re-examining public participation's role in water resource policy making is understanding its theoretical roots. Understanding the theory of public participation provides the concepts needed to evaluate both its practice and its place in the policymaking process. The authors reviewed the public participation literature published between 1969 and 1984 in order to determine any shared themes or commonly accepted recommendations related to the development and implementation of a public participation program. They found that the literature for those fifteen years emphasizes six issues: (1) who should participate, (2) how should citizens participate, (3) during what planning stages should citizens be involved, (4) on what issues should public input be solicited, (5) how much decisionmaking authority should citizens have, and (6) how should the respective needs and demands of organized versus unorganized interests be weighted? This section outlines the major findings of the literature on these questions. The next section investigates the application of these recommendations to water resource planning.

I. Who Should Participate, How, and When?

The literature review reveals apparent consensus on three issues related to the design and implementation of public participation programs: (1) who should participate; (2) how should citizens participate; and (3) during what planning stages should they participate. First, all affected interests should be included. Second, citizens need to participate in a variety of ways that reflect overall program goals (functional orientations), the particular planning stage, and the importance of feedback. Third, public participation ought to be an integral aspect of all planning stages if possible. This apparent consensus, however, breaks down when the literature attempts to define affected publics and program goals.

Although all affected publics should be included, the literature offers a variety of definitions of the term. Some argue that "action bodies" should participate, because affected groups are effective groups.[1] Only such groups possess sufficient political leverage to gain their objectives.[2] Fraenkel's discussion of two different types of citizen participation strategies (the leadership committee approach which involves decision making by small groups of community influentials and a public policy methodology which requires active, in-depth involvement by all segments of the community) is one example of this idea.[3] Such com-

munity improvements as water project planning, he argues, require the leadership committee approach which encourages participation by those who are in basic agreement about the desirability of the project and who control the resources needed to accomplish it. The public policy methodology encourages broad participation and would be disastrous in such situations because, as participation broadens, consensus concerning the need for particular projects and control over resources dissolves. Godschalk and Stiftel's work lends some support to this argument. Their study of 208 planning in North Carolina found that developing a consensus required limiting the number and types of interest groups consulted.[4]

Other authors define "affected interests" much more broadly. Often proponents seem to be arguing for representation of all possible organized and unorganized interests at the same level, on all issues, on a one-person-one-vote basis, in order to correct what they perceive as a situation in which benefits accrue to those already well-off.[5] In part, this is because of the emphasis by one segment of this school on using public participation as a method of bringing about social change. In part, this also occurs because these writers recognize the social and redistributive aspects of water resource policy and the value conflicts these kinds of policies activate.

What seems evident from the literature is that some middle ground must be found. As Willeke points out, water resource planning may need different "publics" participating at different stages.[6] The goal need not be the inclusion of all groups because there may be a number of bases on which people may view themselves as affected: (1) proximity, (2) economics, (3) use, (4) threat to community culture, or (5) threat to social values.[7] Rather, the need is to "lay bare the total spectrum of interests involved in various alternatives, to *identify the consequences* from different courses of action, to recognize *who benefits and who bears the burdens* of the various alternatives, and to *assess their needs and abilities* in this regard."[8] Public participation should be utilized to get "some sense of what the issues are, what the *range* is, and what some of the richness of content is."[9] This requires that the planner (1) understands the types of policies (distributive, redistributive, regulatory, or social) and conflicts (value, interest-based, or technical) generated by a project, plan or decision, (2) realizes, based on policy and conflict type, the amount of controversy he or she can expect, (3) is able to identify both organized and unorganized interests that will be catalyzed by different levels of conflicts, and (4) sees that those who might view themselves as "significantly affected"[10] are represented, either physically or by planning staff advocacy efforts.

Citizen Advisory Committees (CACs) have been suggested as one way to broadly represent interests without increasing the complexity and decreasing the efficiency of the planning process. By far the best work on Citizen Advisory Committees as indirect linkages between planners and the public has been done by Madge Ertel. She found CAC members well-qualified but not representative of the general public. Instead, they

> epitomize the concept of select groups of individuals chosen for the advisory role mainly by virtue of their pre-existing knowledge and experience on the relevant subject matter, their established position as influentials in their local communities, and their identification with recognized interest groups within the study region.[13]

Beatty and Pierce's finding that CAC members and those who join water-related groups are least representative of the public's views supports Ertel's picture of CAC representativeness.

The same kind of subsurface disagreement displayed in discussions of who should participate surrounds discussions of goals. The most frequently stated criticism of agency efforts to involve citizens is that inadequate opportunities were offered to the public to express concerns and have those concerns considered.[14] Students of public participation agree that involvement techniques need to match overall program goals or, in Warner's terminology, functional orientations. However, little agreement about goals exists. Should the objective of a program be educating citizens, allowing them to review plans and offer reactions, or active interaction between planners and citizens concerning the values, design, and choice of a plan? Support in the literature can be found for all three positions and mirrors the real-world disagreements of planners and citizens. For example, when Warner asked agency staff members to list the goals of public involvement most mentioned information dissemination.[15] Other researchers have found that agency goals focus on education in order to develop support for the plan and improve the agency's efficiency and image.[16] Citizens, on the other hand, seek a more active role and emphasize planner/public interaction to expand their inclusion in generating ideas and alternatives, plan and program review, and the choice of a final plan. Sewell and Phillips found that citizens "viewed public participation as a means to reduce the power of planners and the bureaucracy and to ensure that people affected by government policies have influence over their design and implementation."[17] The Water Resources Council reported that "the majority of participants requested greater public involvement,[18] and respondents in Warner's study wanted to move from the role of interested observer to that of active participant in the planning process.[19]

II. Issues, Authority and Influence

No pretense of consensus surrounds discussion of the other three issues: (1) what weight should be accorded organized versus unorganized interests, (2) in what issues should citizens be involved, and (3) how much decisionmaking authority should citizens have? Some have argued that those with the most information and interest or the most to lose should receive the greatest attention. Supporters of advocacy planning and those seeking to redistribute policymaking power reach the opposite conclusion, arguing that attentive publics have a variety of ways to make their influence felt. The planning process, therefore, should give the most weight to unorganized affected interests lacking the resources, leadership, and influence of mainline interest groups.

Disagreements over types of issues and decisionmaking authority are closely related and most easily discussed together. One group of writers maintains that, although citizen input is essential, the public's role is not to make policy directly.[20] They argue that citizen involvement, even if widely based, may not equal the public interest. Accountability rests with the legislative and executive branches of government, not with citizen advisory groups. From this perspective public participation is most valuable "when it comes to setting goals and priorities which are later translated by governmental groups."[21]

Another group of writers, however, considers the incorporation of public input to be essential throughout the planning stages and on a variety of levels.[22] This group argues that technical questions often contain value elements. Rather than have these questions answered solely in terms of the planners' unstated values, explicitly stated community values should be included. Additionally, citizens may possess expertise important to the formulation of a sound technical plan.

This lack of consensus in the literature makes it possible only to offer very vague criteria for evaluating state public participation programs in water resource planning. The authors did find agreement on the following points, however. First, more publics need to be involved—especially elected officials. Second, planners should involve publics flexibly based on such group characteristics as location, interest, social and demographic profiles, and such decision factors as planning stage and degree of controversy. Third, it is very important to utilize an open process that ensures that the unrepresented can participate if they choose. In addition, all agree on the importance of matching participation techniques with planning goals and stages and on the importance of using a variety of techniques. Participation programs often have several object-

ives, and no one technique can satisfy them all.[23] Different methods of participation help to achieve different goals. In examining successful programs in Dallas, Texas and Los Angeles, California, Warner found that "a linked series of activities with feedback to the participants on progress to date provided after each step. . .is crucial in maintaining the motivational incentive for further public involvement."[24] Therefore, the techniques used should be geared to (1) the goals of the program, (2) the particular planning stage, and (3) providing feedback on agency response to public input. Also frequently mentioned are use of Citizen Advisory Committees to link the public, the agencies and elected officials and the incorporation of feedback so citizens know they have been heard. Finally, there is great consensus on the importance of developing continuous participation programs, or, at the very least, soliciting input (1) after the identification of alternative solutions but before a tentative choice is made and (2) following the selection of solutions but prior to completion of a final report.[25]

III. Footnotes

1. Adam C. Davis, *Public Participation in Water Pollution Control Policy and Decision Making* (Raleigh: Water Resources Research Institute of the University of North Carolina, 1974):6.

2. A.V.S. Lochhead, "Current Issues in Community Work," *Community Development Journal* 9(January 1974): 2.

3. R.M. Fraenkel, "Community Development Goals and Citizen Participation," *Community Development* 12(October 1977): 77-85.

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5. W.R. Derrick Sewell and Timothy O'Riordan, "The Culture of Participation in Environmental Decision Making," *Natural Resources Journal* 16(January 1976): 10.

6 Gene Willeke, "Identification of Publics in Water Resource Planning," James Stewart, ed., in *Proceedings: Conference on Public Participation in Water Resources Planning* (Raleigh,: Water Resources Research Institute of the University of North Carolina, 1974):3-16.

7. James Creighton, *Public Involvement Manual* (Washington, D.C.: Government Printing Office, 1980): 34.

8. Norman Wengert, "Where Do We Go With Public Participation in the Planning Process?" Leonard Dworsky, David Allee and Sandor Csallany, eds., in *Social and Economic Aspects of Water Resources Development* (Urbana: American Water Resources Association, 1972): 11. Emphasis in the original.

9. *Id.*, 80.

10. Creighton, 41.

11. The importance of advocacy planning is discussed by Gene Willeke, "Identification of the Publics," Harold Albert, ed., in *Education of Water Resources Planners and Managers for Effective Public Participation* (Clemson: Water Resources Research Institute, 1978): 67-92; Joseph Pavoni, ed. *Handbook of Water Quality Management and Planning* (New York: Van Nostrand Reinhold, (1977); and Barclay Hudson, "Comparison of Current Planning Theories: Counterparts and Contradictions," *Journal of the American Planning Association* 45(October 1979).

12. Madge Ertel, *The Role of Citizen Advisory Groups in Water Resources Planning* (Amherst: University of Massachusetts Water Resources Research Institute, 1974).

13. *Id.*, 46.

14. See for example Warner, 4; Ertel, *The Role of Citizen Advisory Groups, 4;* Advisory Committee on Intergovernmental Citizen Participation in the American Federal System (Washington, D.C.: Government Printing Office, 1979): 12; and Pavoni, 341.

15. Warner.

16. Sewell and Phillips, 352; James J. Glass, "Citizen Participation in Planning," *Journal of the American Planning Association* 45 (April 1979): 180-189.

17. Sewell and Phillips, 352.

18. Water Resources Council, *Report on Public Involvement,* Vol I (Washington, D.C.: U.S. Water Resources Council, 1975): A-3.

19. Warner, 142.

20. Fraenkel, Elizabeth David, "The Role of the Public in Decision-making," Francis Leversedge, ed., *Priorities in Water Management* (Victoria, B.C.: University of Victoria Press, 1974): 23-41; and Eleanor Lee, "Grass Roots Response and Recommendations," Linda McKenzie, ed.,*The Grass Roots and Water Resources Management* (Pullman: State of Washington Water Research Center, 1972): 25.

21. Lee, 25.

22. See for example Arnold Bolle, "Public Participation and Environmental Quality," *Natural Resources Journal* (July 1971): 497-505; Thomas Borton and Katherine Warner, "Involving Citizens in Water Resources Planning," *Environment and Behavior* 3(September 1971): 287; Gregory Daneke, "Public Involvement in Natural Resource Development: A Review of Water Resource Planning," *Environmental Affairs* 6(1977): 11-31; and Richard Sellevold, "The Corps of Engineers," Linda Mc Kenzie, ed., *The Grass Roots and Water Resources Management* (Pullman: State of Washington Water Research Center, 1972): 74.

23. Glass, 188.

24. Warner, 160.

25. Peggy Ross, "Education of Publics in Participation in Water Resources Policy and Decision-Making," James Stewart, ed., *Proceedings: Conference on Public Participation in Water Resources Planning* (Raleigh: Water Resources Research Institute of the University of North Carolina, 1974): 136.

THE PRACTICE OF PUBLIC PARTICIPATION IN WATER RESOURCE PLANNING

Do state agencies responsible for water resource management incorporate the literature's recommendations into their planning process? In order to answer that question project investigators studied the public participation programs of thirty-one states: Alabama, Arizona, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, North Carolina, Ohio, Oregon, Pennsylvania, South Carolina, Tennessee, Texas, Washington, West Virginia, Wisconsin, and Wyoming. The following criteria were used in selecting states to be studied. First, an attempt was made to contact all southeastern states because of the similarity between their physical and socio-political climates and that of Virginia. In addition, investigators thought it important to contact as many states as possible that have some type of water plan or water planning process. Because the primary purpose of this study is to offer information on public participation that is relevant to the Commonwealth of Virginia, the investigators excluded those western appropriation states that do not have a water planning process in addition to their system of appropriative water rights.

Research results are based on informal interviews with water resource planning agency representatives in each state. In order to identify the agency and staff person responsible for public participation in water or natural resources for a particular state, letters were sent to the Water Institute in each state studied asking for names and addresses of agency contacts. In most instances, this process quickly led the investigators to the correct individual. All water institutes were able to provide the correct agency and with that information the staff member responsible for the public participation program was easy to find. Investigators began the study with a formal telephone questionnaire but soon found that respondents were often uncomfortable and unwilling to answer certain questions concerning attitudes toward citizen involvement when they were formally presented. Therefore, investigators developed a more informal process for eliciting the same information.

All interviews were conducted by telephone, followed the same format, and asked for the same information. Each agency representative was asked to describe the agency's water-related activities and the extent and form of public involvement in those activities. Also sought were the representative's perceptions about public influence on agency activity, appropriate participation mechanisms, the makeup of the interested public, and the agency's experience with and reaction to public involve-

ment. The purpose of this approach was to define a general pattern of public participation in water resource planning and management.

I. Patterns of Participation

Although each state water resource planning agency surveyed did have some form of public participation program, the type of program and the extent of public involvement in water resource planning and management varied greatly from state to state. Several general patterns, however, did emerge from this examination. These patterns relate to (1) who should participate, (2) when participation is appropriate, and (3) how citizens should participate. They emphasize participation by limited numbers of citizens in limited ways at limited points in the planning process.

A. Limited Numbers of Participants

During the interview process it became clear that there is generally a strong emphasis on interest groups. When agency personnel spoke of the public, they were often referring to specific organized publics or interest groups which seek to influence agency policy in various ways. Those agencies that clearly depend on interest groups for support and information enjoyed the additional political leverage associated with public involvement. Although the pattern may not be the same elsewhere, in these states a symbiotic relationship has developed between user-oriented interest groups and water resource managers based on the shared goal of water development. Conflicts, when they arise, are disputes over the nature and method of development not whether it should occur. In some cases, agencies appear to rely on interest groups as heavily as those groups rely on the agency. In those states involvement of environmental groups has decreased the consensus over development and the level of conflict has increased. Water resource managers lose much of their political leverage and the planning process becomes more time-consuming and expensive.

This limited view of who should participate is related to the widespread perception among water resource management representatives that most of the public is uninterested in water resource policy decisions. When participation does occur, it is viewed as short-term, issue-oriented, and adversarial. Those people deemed most likely to participate are members of groups actively involved with specific water policy or regulatory issues. This perception may also help to explain why agencies place such a heavy emphasis on bargaining with coalitions and groups. The interest group orientation is a matter of concern to the

Texas Department of Water Resources which fears that the interests of the larger general public are not well represented in such an approach. In a new effort to involve the general public, a random selection of people is surveyed by telephone, informed of proposed plans, and given an opportunity to indicate their views.

B. Limited Points in the Planning Process

The majority of those state agencies contacted (74 percent) felt that the general public does have the capacity for involvement. Yet, in almost every state interviewed, public involvement is restricted to the selection of policy alternatives generated by experts and defined by the agency. Estimations of the value of public involvement and the capacity of the public to participate in all stages of the planning process dramatically diminished when administrative functions were involved. None of the state water resource planning agencies interviewed involve the public in the implementation or enforcement of policy. These two stages of the planning process plus the development of policy alternatives are restricted to experts and agency personnel. The general consensus is that advisory committees are effective only when they focus on specific issues. Costly delays usually result if they consider general policies. A great deal of time, effort, and expense is needed for a diverse group of people to meet regularly and long enough to adequately address an issue or plan. Table 1 shows the number of states involving the public during each planning stage.

Agencies with minimal public participation programs tended to elicit either very little response or negative responses to proposed policies. State agencies with more extensive public participation programs tended to receive more positive feedback, although not completely positive responses. Clark Duffy of the Kansas Water Office attributes the generally positive public response to their programs and policies to the inclusion of the public in the development stages of the planning process. He stated that "if the public is asked to approve a plan when they do not have any knowledge of how or why the plan was developed, it is unlikely that they will react positively."

C. Limited Types of Involvement

Public involvement in agency activities can be at the initiative of either the public or the agency. Although an agency may report substantial public involvement in its water-related activities, it does not necessarily follow that the agency actively seeks that involvement. The public may decide to participate regardless of the agency's behavior. Thus, the

agencies interviewed were queried about activities generating interaction between the agency and the public. Two kinds of interaction take place at the instigation of the agency: communicating information to the public about agency programs (one-way communication) and soliciting the public's reaction and values (two-way communication). Table 2 shows the number of states engaging in one-way and two-way communication with the public.

Informing the public about what the agency is doing is an important step in public involvement. The public's possession of information about the activities of the agency is important in deciding whether or not to become involved and what positions to take on relevant issues. For all of the interviewed agencies the use of the news media is the most popular method of informing the public, closely followed by the use of newsletters and monthly magazines.

Several state agency representatives stressed the necessity of hiring staff members who have some expertise in producing effective press releases that will be acceptable to the news media. A few state water planning agencies such as those in Wisconsin and Arkansas have hired communication specialists. Kansas also uses local citizen leaders to encourage a two-way flow of information between the agency and the public. However, only a few states surveyed (Kansas, Maryland, Pennsylvania) were willing to spend the funds necessary to develop an effective two-way flow of information.

A state's functional orientation reveals the type of public involvement it seeks to encourage. The education/information orientation emphasizes one-way communication of information from planners to the public and includes little room for citizen response. Although the review/reaction orientation still emphasizes one-way communication it does allow citizens to respond to plans and policies generated by water resource professionals. However, there is no attempt to discuss alternatives with the public or let it know about any action taken on their input. Interaction/dialogue does require two-way communication and encourages citizen response to plans and citizen/planner interaction. Table 3 reproduces Warner's categorization of techniques according to their functional orientation.

This research found that the dominant method of obtaining public attitudes about programs is the use of public meetings (review/reaction). Only nine have adopted the interaction/dialogue orientation. Table 4 lists the number of states utilizing each of the functional orientations in their public participation programs. Advisory committees, which

usually are appointed by the various state legislatures or governors, often include representatives of environmental organizations, mayors and selectmen of local cities, and prominent businessmen. The general public that is unaffiliated with any group or organization usually is not represented on the advisory committees that serve the water resource planning agencies interviewed. Few states are willing to make the financial commitment necessary to develop and maintain a well-informed, organized advisory committee. Although thirteen states utilize CACs, only eight of these committees exhibited an interaction/dialogue orientation. Some state water resource planning agencies only are required to supply CACs with information designed to increase members' support for an already formulated plan or policy. In these instances CACs are unable to act as mediators between planning officials and the public. Indiana, Iowa, North Carolina and Ohio, however, do involve CACs in the choice of alternatives and final plans.

In summary, it appears that few states meet even the minimum criteria agreed upon in the literature. Those with Citizen Advisory Committees (about 50 percent of the states surveyed) have incorporated elected officials into some aspect of the policymaking process. However, these committees often have very limited memberships and responsibilities. Otherwise, participation in most of the states studied is limited to interest groups, and no more than 20 percent provide opportunities for the unrepresented to participate if they so choose. There are few ongoing programs, little feedback, and almost no attempt to match techniques with planning stages or to involve groups flexibly based on the degree of controversy or on such characteristics as location, interest, and social and demographic profiles. Fifty percent do seem to match goals and techniques in that their goal is information dissemination and education, and the techniques most frequently utilized fit that functional orientation.

II. Exceptions to the Rule

There are a few notable exceptions to the general pattern of limiting public participation to the setting of general goals or reaction to policies generated by agencies before adoption. The Wisconsin Department of Natural Resources, Kansas Water Office, Pennsylvania Department of Environmental Resources, Maryland Department of Mental Health and Hygiene, Arizona Department of Water Resources and Oregon Water Resources Department are water resource planning agencies that involve citizens in all stages of the planning process except the implementation and enforcement of policy.

The public was involved in the entire planning process that took place in Pennsylvania ten years ago. Regional planning agencies coordinated the public participation effort. They chose the places and times for public meetings that were held monthly in twelve regions of the state. They also publicized the meetings through the use of local leaders and updated mailing lists. During the development of the water resource plan, the first round of public meetings dealt with the goals and objectives of the proposed plan. Planners solicited feedback on this aspect of the plan before going on to the technical aspects. After a general agreement was reached concerning goals and objectives, the group discussed a whole range of specific topics and issues related to the plan's development and implementation. The individuals moderating these public meetings were members of the engineering staff competent in presenting the technical aspects of the plan; however, water resource policy experts moderated any discussions of policy issues. These staff members were responsive to the suggestions of the public because they had to implement the plan. The public was responsive to the staff members because these lower level bureaucrats were well-informed about potential problems affecting the general public.

Other states also report positive experiences with their public participation programs and the survey explored with agency staff members perceived reasons for their positive interactions with the public. These states had more extensive public participation programs than those in which planners reported primarily nagative experiences. Kansas is in the process of developing a new water resource plan and its planners feel that involving the public throughout the process encourages both two-way communication and more favorable public response. Michigan, too, incorporates public input into several planning stages, although advisory groups appointed by the governor are the defined public.

Arizona keeps an up-to-date mailing list of interested individuals and groups to help it define the "public" affected by a proposal or that should be consulted at a particular planning stage. Arkansas' water resource planners stress the importance of presenting the public with a detailed proposal if a positive public response is sought. South Carolina holds public meetings via video-teleconference every four months and interested citizens can visit one of the twelve technical education centers throughout the state to participate in the meetings. Additionally, the South Carolina Water Resources Commission solicits feedback about its program through random surveys.

Several states offer examples of good use of Citizen Advisory Committees. North Carolina, in particular, relies extensively on an ongoing

committee that meets with the Division of Environmental Management staff every two months to discuss complex issues related to water quality planning. The committee sets general goals and lists and selects policy alternatives. The Office of Water Resources also uses CACs in which all interested can participate in its discussions of water supply planning. Tennessee's Division of Water Management feels that the most effective form of public participation is small, well-informed advisory committees, and seeks to balance the interests of local officials, state agencies, and special interest groups in seeking members. However, anyone is welcome to participate. The agency uses these committees to set general goals, list policy alternatives, advise the agency on the ongoing planning process, and review the final plan. Maryland also uses committees composed of private citizens, public interest groups, economic interests and public officials to set general planning goals and to enumerate and select policy alternatives.

PLANNING "THROUGH A GLASS DARKLY"

The results of this research, then, pose a dilemma. On the one hand, researchers found fifteen years of literature advocating inclusion of more participants, additional types of agency/citizen interaction, and more frequent solicitation of public input during various planning stages. However, agreement dissipates once ideas for implementing these recommendations are discussed. In addition, the review of current state programs portrays a desire by water resource agency professionals to limit public involvement. This section discusses three major sources of confusion hindering development and implementation of public participation programs and their relevance to water resource planning. These sources of confusion are different opinions on or theories of: (1) the nature of the policies involved in the decision; (2) representation; and (3) the planners' role in the decisionmaking process. Confusion over these issues has hampered consistency and resulted in planning "through a glass darkly."

I. Public Participation and the Policy Process

The key roadblock to incorporating public participation into water resource planning has been a failure to differentiate among types of policies. Any policy process involves three basic types of conflict: (1) technical, (2) value, and (3) interest-based. Water policy is no exception. Technical or cognitive conflicts occur over factual conditions that, theoretically, can be resolved through application of the scientific method.[1] Issues associated with technical conflict include the most favorable site for an augmentation project, the choice between structural or non-structural solutions to a particular water resources problem, and the cost and benefits of alternative projects or problem solutions. The second type of value conflict over water resources' policies results from the different importance assigned social goals such as economic development and environmental protection by affected interests.[2] Although these conflicts rarely are resolved completely, they can be mitigated and a cooperative spirit maintained when value conflicts openly are discussed as legitimate concerns and some attempt is made to include them in the policy choice. Finally, "conflict over the incidence of projected project impacts—who will gain and who will lose as a consequence of taking action" is the hallmark of interest-based conflict.[3] Resolution of interest-based conflict depends on bargaining among affected groups. Each of the three types of conflict is best attacked by a different kind of policy.

Lowi and others have identified four categories of policies available for

attacking technical, value and interest-based conflicts: distributive, redistributive, regulatory, and social (Tables 5A and 5B).

Distributive (subsidy) policies provide "tangible benefits to certain individuals or groups."[4] Traditionally, water resource planning has focused on distributive and regulatory policies. Distributive policies allocate resources (such as funding for water development projects) and arouse interest-based and technical conflicts (such as facility siting or determining costs and benefits). Regulatory policies (such as developing 208 guidelines, BATs, or aquifer protection strategies) stress technical skills and the resolution of conflicts that theoretically can be resolved through application of the scientific method.[5]

Now, however, planners are interacting with citizens over redistributive and social policies. Redistributive policies transfer financial, social, or other resource benefits from one group to another.[6] In so doing, they generate both value and interest-based conflicts by creating "winners and losers" and challenging strongly held ideological beliefs.[7] No longer is the legislative response to water problems limited to the distribution of construction funds for supply augmentation projects. Instead, water resource planning includes "multiobjective planning and multiple purpose projects, together with concern for environmental quality and equitable income distribution."[8] Such redistributive policies as interjurisdictional water transfers or changes in a state's rights allocation system also emphasize a new type of interest-based conflict. Whereas legislators and agency personnel formerly dealt with interest-based conflicts among such citizens as better-educated, white-collar, high-income, "water-front property owners, those who use water for transportation and business, and heavy water users,"[9] the new interest-based conflicts generated by redistributive policies often include groups with which agency staffs have had no experience.

Citizen involvement in planning also arouses discussion of social policies which are the most difficult to resolve because they involve value conflicts. They center around the relative importance of water for economic purposes and water for maintaining the quality of human, fish, and animal life. They also generate disputes over whether scarce resources should be devoted to water policy planning or to other human needs. However, as the focus of water resource planning widens beyond project construction, "political discussion accordingly shifts its focus. . .to balancing various social needs."[10] It is at this point that water resource planners are most at a loss and receive the least help from those experienced in reconciling competing social values, i.e., legislative representatives.

II. The Problem of Representation

Water resource planners rely on interest groups and other indirect linkages to represent and define the public interest. This reliance is part of planners' attempts to achieve their goals and is based on the belief that direct citizen involvement is impractical or unwise, conflicting with the more positive view of participation espoused by those advocating expanded citizen involvement in policy making. Yet, because the American political culture contains certain contradictions which force it to react to public participation with a Janus face, both sides can find support for their arguments.

The first face would limit opportunities for public participation on three grounds: (1) direct citizen involvement represents a threat to democratic values, (2) direct involvement is not possible; and (3) direct involvement is not necessary. Both the survey of state public participation programs and the literature search undertaken for this report reflect a concern in the planning community about the public's supposed lack of information, interest, and commitment to democratic values.[11] Planners believe that people avoid involvement unless they feel a decision will directly and massively affect them and that the policymaking process will become too costly and time-consuming if effective public participation is encouraged. As the survey of state agencies demonstrates, they also believe that water resource planning involves technical questions that require technical expertise. Ashton, for example, argues that

> The normative question remains as to whether increased involvement of the public is desirable recognizing the costs of such involvement and that much of this involvement has been, and would continue to be, based on emotional considerations and either false or inadequate information.[12]

Norman Wengert appears to agree citing the work of Dye and Zeigler who maintain that "mass governance is neither desirable nor feasible.[13] Elites are inevitable and necessary, they argue. Masses, not elites, pose the greatest threat to individual freedom and American values of life, liberty, and property. Too much emphasis on public participation, the critics conclude, can be expected to result in worse policies both technically and in their treatment of individual rights.

Arguments over expanded public participation continue, however, because a strong tradition also exists in American political philosophy that supports a very different notion of representation. This tradition is the other face of the American political culture, and it reflects a set of ideal democratic values: (1) popular participation, (2) majority rule,

(3) minority rights, (4) individual freedom, (5) a commitment to the classical liberal values of life, liberty, and property, and (6) equality of opportunity.[14] These values emerge repeatedly in the planning literature as the motto, "those affected by decisions should have the opportunity to affect those decisions."[15]

Although the pluralists utilize the rhetoric of these ideals, pluralism is not the same as classical democracy. Decision making through elite interaction is not the same as individual participation. This may be necessary in a mass society whose sheer size makes impossible individual control over the social, political, and economic environment. However, group representation cannot achieve classical democracy's goal of personal development through active participation. Classical democracy viewed interest groups and political parties as detrimental to the democratic process, while pluralism considers them essential. Pluralism also poses problems of (1) how unelected elites can be held accountable to the people; (2) the influence of group members over the organization's policies, and (3) whether elite competition protects the dignity of the individual since decisions often seem based as much on logrolling as on elite competition.[16]

Authors emphasizing this face of the American political culture believe individuals can and should represent themselves. Expanded public participation efforts are needed because many interests are left out of decision making under current rules. Further, the omission of these interests is unfair and harmful to the policy process. In a political culture that emphasizes scarcity of resources, as the American culture does,[17] groups as well as individuals must compete for the limited number of benefits available, thus increasing conflict and decreasing cooperation as each interest scrambles for its "fair share." Policy making is a self-seeking affair in which those with the most resources outbid those without the time, money or leadership to compete. Further, if there is a consensus on policy between leaders and nonleaders (and several writers disagree with that statement), it is because the views of the unrepresented are not reflected in opinion polls. Political decision making is not neutral. Those with the ability to "exploit the process" reap the benefits.[18] Therefore, they argue, participation is needed.

III. The Planners' Role

Planners' concerns about their professional role and authority also hinder expansion of public participation. These concerns are expressed in (1) planners' need to control their interaction with the public (especially their opposition to the interaction/dialogue orientation and the

techniques that operationalize it) and (2) conflict between planners' and the public's goals for citizen participation.

Bolan suggests planning professionals need to control interactions with their audience in order to enhance professional and personal esteem.[19] The doctor's or lawyer's office, for example, presents a formal setting for professional/client relationships that structures the interaction to surround the professional with an aura of respect and esteem. This environment encourages the professional to interact in a relaxed, self-confident manner because he or she expects the audience not to ignore or reject a communication from a person who is presented as an authority in this setting. The planning professional's environment, however, is not as secure, because the interaction often takes place outside of a professional office setting in the public arena where it is much more difficult to control interactions with the audience (the general public).[20] If a person's professional and personal esteem rests on the ability to control that interaction, he or she will adopt techniques to increase a sense of control. Hearings, CACs, and other techniques that limit communication with a wide audience enhance that impression of control during a public participation activity. Expanded participation, that encourages interaction and feedback rather than mere project endorsement, may contribute to feelings of uncertainty and promote defensive behavior that exacerbates conflict.

A second problem is the conflict between planners' and the public's goals. One method planners appear to use for controlling their interaction with the public is the adoption of goals that limit communication and interaction. The public, however, has a different set of goals which emphasize expanded communication, interaction, and involvement in decision making. Agency personnel stress the goals of information dissemination and development of support,[21] while the public's goals include broadening the scope of the study to include social factors, assuring the consideration of genuine alternatives, and offsetting the influence of special interest groups.[22]

Some planners feel that utilization of public participation techniques which expand the number of citizens involved, their opportunities to express themselves, and their influence during a variety of planning stages increases conflict and hampers development of consensus. As conflict increases, it becomes more difficult to reach decisions and planners lose control of the planning process. Daneke does not agree, arguing that increased conflict will not necessarily accompany expanded participation but may in fact result from limited participation.

In addition, developing consensus for a plan is a goal that cannot be achieved unless another problem is overcome: the tendency of many planners to confuse participation with accommodation.[23] If a planner views participation in terms of information dissemination for an already formulated plan, then he or she will solicit support from the public but not input. The public's goal is participation in formulating those plans and, therefore, it stresses accommodation of its views. In the past, as evidenced by the *Brandywine Plan* and plans formulated by the Puget Sound Task Force and the Grand River Basin,[24] the public felt it was asked to participate futilely—in some instances, after plans were completed; in others, during an early phase and then not again until very late in the planning process. Sometimes input was sought at appropriate times and by effective methods, but no agency feedback was offered and no changes were made in the water resource plan or project. Thus, it appears that opposition to plans arises not because of public participation, but because of confusion concerning the goals for public participation.

In summary, these three sources of confusion are particularly difficult to oversome because each reinforces the others. The side of the American political culture implemented by most water resource planners emphasizes the potential dangers arising from public participation and justifies the pattern of limited involvement found in the survey of 31 states. Planners' lack of familiarity with social and redistributive policies leads them to consider water resource planning either in strictly technical terms or in terms of the plan's destributive effects on traditional interest groups. If the public is not capable of direct participation, planning involves primarily technical or distributive decisions, and interest groups sufficiently represent all those affected that the plan selected is legitimate, then planners' goals of educating the public and asking for support cannot be questioned. Further, under such circumstances, there are no grounds for questioning the planner's right to make decisions with only limited public involvement. Thus, the interaction of several parts of the planner's environment and experiences reinforces his or her view of water resource planning.

IV. Footnotes

1. William Lord, "Water Resources Planning: Conflict Management." *Water Spectrum* 2(Summer 1980), 7.

2. *Id.*, 9.

3. *Id.*

4. C.P. Chelf, *Public Policymaking in America* (Santa Monica, Cal.: Goodyear Publishing Co., 1981), 13.

5. Lord, 7.

6. Chelf, 14.

7. *Id.*

8. Arthur Chan, "The Nature of Water Resources Policy and Policymaking," *American Journal of Economics and Sociology* 41 (1982), 86.

9. Beatty and Pierce, 1008.

10. Chan, 85.

11. Bolle, 500: Davis, 2.

12. Peter Ashton, "Accountability of Public Water Resource Agencies," J. Steward, ed., in *Proceedings: Conference on Public Participation in Water Resources Planning* (Raleigh: Water Resources Research Institute of the University of North Carolina, 1974), 74.

13. Dye and Zeigler, 3-4.

14. Dye and Zeigler, 10.

15. See for example, Borton and Warner, 286; Arnstein; Sewell and Phillips, "Models for the Evaluation of Public Participation Programs," *Natural Resources Journal* 19(1979): 337-358; Warner; Daneke; Lochhead; John Strange, "The Impact of Citizen Participation on Public Administration," *Public Administration Review* 32(September 1972), 457; Roger Parjani and Nicholas Fattu, *Public Participation in State Planning: An Analysis of Coastal Zone Planning in Three Southeastern States* (Unpublished manuscript prepared for Georgia Sea Grant Program, 1980); and Creighton.

16. Dye and Zeigler, 12-13.

17. See C.B. McPherson, *The Political Theory of Possessive Individualism* (London: Oxford University Press, 1970); D. Devine, *The*

Political Culture of the United States (Boston: Little-Brown, 1972); and L. Hartz, *The Liberal Tradition in America* (New York: Harcourt, Brace, and World, 1955).

18. Harvey R. Doerksen and John C. Pierce, "Citizen Influence in Water Policy Decisions: Contents, Constraints, and Alternatives," *Water Resources Bulletin* 11(1975), 962; Strange, 469.

19. Richard Bolan, "Practitioner as Theorist: Phenomenology of the Professional Episode," *Journal of the American Planning Association* 46(July 1980), 265.

20. *Id.,* 269.

21. Warner, 113.

22. *Id.,* 146.

23. *Id.,* 19.

24. Daneke, 19-22.

THROUGH THE LOOKING GLASS: RECOMMENDATIONS FOR IMPLEMENTING PUBLIC PARTICIPATION

The keys to remedying the confusion and to increasing planner acceptance of and willingness to implement public participation programs are understanding the types of policies involved and devising planning strategies that acknowledge the appropriate role for citizens in that type of policy decision. Further, understanding the policy type can aid planners in recognizing the appropriate representational method and professional role. Planners then could utilize Warner's typology of functional orientations, for example, to help them select orientations and methods that fit the policy type and minimize conflict over respective role perceptions. This section outlines a method for determining whether a policy decision should be made using the Political Feasibility Model or the Social Feasibility Model. It also discusses the requirements for implementing each model.

I. Implementing the Political Feasibility Model

Pluralism is the dominant American political ideology.[1] It seeks to provide pragmatic solutions for the problems of implementing democracy in decision making. Groups are available to represent almost any position or interest. Individuals can exercise political influence by joining a group and access to leadership positions within a group is open. In addition, individuals influence decisions by choosing among competing elites in elections. Pluralists argue that power within American society is widely distributed. Public policy may not reflect majority preferences, but does represent a balance of power among competing interests. Different interests or groups dominate different types of policy decisions. Overall, in a pluralist system, policies are determined through bargaining and compromise and the public good is that option around which consensus forms.

It is obvious, therefore, that an essential aspect of pluralism is political feasibility. Political feasibility is the determining factor in distributive policy making where the focus of attention is the initial allocation of resources and competing interest groups are the source of conflict. Political feasibility also is an important aspect of regulatory policy making. Usually, more than one option is available for choice once cognitive disagreements are settled. At that point conflicts over choice move to the interest group arena to be settled by political means.[2] Public officials develop distributive and regulatory policies in terms of bargaining with and attempting to accommodate competing organized interests. This process has been the primary decisionmaking method in

water resource planning.[3] Therefore, only a few general comments will be offered on the model.

This model functions well in resolving conflicts over distributive and regulatory policies, but increases conflict when applied to redistributive and social policies. The Political Feasibility Model requires less citizen involvement and citizen involvement of a different type. Its main foci are the information/education and review/reaction functional orientations. There is less need for ongoing participation programs because the number and type of interest groups involved change with each issue. As long as the appropriate interest groups are identified, there is less need to actively solicit and almost no pressure to use citizen input. Accordingly, fewer agency resources and staff need to be committed to the decisionmaking process. Those interested in developing a planning process focused on the Political Feasibility Model are encouraged to review the work of the U.S. Army Corps of Engineers.

II. Implementing the Social Feasibility Model

Tables 5A and 5B provide clues for determining policy types that most successfully can be incorporated into the Social Feasibility Model. As Pitkin argues

> Politics abound with issues on which men are committed in a way that is not easily accessible to rational argument, that shapes the perception of arguments, that may be unchanged throughout a lifetime. It is a field where rationality is no guarantee of agreement. Yet, at the same time, rational arguments are sometimes relevant, and agreement can sometimes be reached.[4]

Social and redistributive policies involve the kind of issues Pitkin is describing here.

These two policy types focus on bounded choices in that not everyone can be accommodated in the ultimate decision. Although not necessarily a zero-sum game, there will be winners and losers. Harrison's categorization of institutional barriers is helpful in understanding the idea of bounded choice. In social and redistributive policy choices there is some institution, some equilibrium condition, that is threatened. Redistributive policies, for example, require that something be taken away from a "have" and given to a "have not." In the area of water resources, institutional barriers are encountered whenever someone suggests redirecting water development funds from the west to another region. Social policies involve bounded choices because individuals' values and attitudes are difficult to change. Accommodation of one value set may cause holders of a different value set to feel slighted or

oppressed. Conflict between Protestants and Catholics in Northern Ireland and the Sikhs and other Hindu sects in India are examples. In water resources, planners must face the fact that some uses of water may preclude others, for instance, setting minimum instream flows may protect habitat but preclude additional development.

In addition to presenting bounded choices, social and redistributive policies emphasize value conflicts. The decision also may contain conflicts among competing interest groups, but the focus of attention is different and primary concern is not of setting shares of a public good. The choice is not how to distribute the pie, but whether shares should be taken from one group or region and given to another or whether one value (economics or aesthetics) is more important than another (fish habitat, hydropower, or recreation) and, therefore should be predominant in reaching a decision.

If the planner determines that a decision involves social and/or redistributive policies, then the Social Feasibility Model offers an appropriate decisionmaking method. This model focuses on resolving value conflicts and, therefore, requires emphasis on public participation. If, as is often the case, a decision involves several types of policies the Social Feasibility Model should be used during those decision stages where value conflicts are dominant. The Social Feasibility Model has five major elements: (1) active solicitation of citizen input; (2) adoption of the interaction/dialogue functional orientation; (3) investment of agency resources in public education. (4) development of continuous programs. and (5) use of feedback. These recommendations should not break the budget of any water resource agency and they implement a practical rather than an ideal public participation program.

A. Solicit Citizen Input

Incorporating social values does not mean entirely turning the planning process over to citizens or abdicating one's professional judgement. Planners must try to determine who will be affected (socially or culturally as well as economically) and actively contact individuals or groups associated with those interests. Willeke discusses several methods of identifying affected interests.[5] Each method should focus on developing a genuine picture of community desires and values. There is nothing wrong with pursuing knowledge of social values and wishes through group interaction. However, professionals should try to discover and include a broad range of interests, not just traditional water interests and their environmental adversaries. All groups do not need to be included. However, the nature of the American policymaking process

where the public interest is defined as "what is acceptable" makes it important to gain an understanding of the range of interests and individuals affected and their needs and desires.

Adoption of the suggestion to actively solicit and use citizen values will require increasing the number and variety of individuals and groups consulted in order to clearly understand local issues and concerns. Initially, it may increase conflict, but, as Daneke suggests, it also will provide a chance for more moderate opinions to be included and thus an increased opportunity for achieving consensus. Because a majority of Americans tend to hold moderate views, "a greatly expanded participatory program might also broaden the support base for more moderate project alternatives."[6] Thus, it is possible for increased citizen involvement to actually help planners achieve their goal of developing plan support.

B. Utilize Interaction/ Dialogue Functional Orientation

Implementing the functional orientation appropriate to a given policy is more important than the particular public participation technique utilized. Relating functional orientations to policies allows planners to sort out the many available techniques and locate those most useful. Thus, techniques can be used at the point where they will do the public and the planner the most good. Table 3 sorts techniques by functional orientation. However, based on the literature review and the survey of water resource planning professionals, a slight revision of that Table may be in order. Table 6 lists the techniques considered by both planners and the literature to be most effective according to functional orientation and policy type. They also are less complicated and more cost-effective than many of the others advocated.

Techniques useful in actively soliciting citizen values emphasize the interaction/dialogue functional orientation. They require two-way communication between the planner and the public. Table 6 suggests several appropriate techniques. Others, such as interactive cable tv, value analysis, fishbowl planning, and policy Delphi can be found in the work of Judy Rosener and the Advisory Committee on Intergovernmental Relations. However, three techniques appear to be the most practical: (1) workshops, (2) advisory boards or committees, and (3) task forces.

Specific advice on conducting workshops can be found in the work of Graf and the U.S. Army Corps of Engineers.[7] Particular attention, however, should be paid to (1) minimizing jargon and presenting infor-

mation in a manner easily understood by the general public, (2) the use of audio-visual aids, (3) seating arrangements that facilitate interaction and discussion, (4) emphasizing group discussion of information presented, and (5) summarizing the workshop's findings on group values and concerns.

Ertel provides a variety of excellent suggestions on the formation and utilization of Citizen Advisory Committees, many of which also are applicable to task forces.[8] It should be remembered that a CAC is only one method of soliciting values. CAC members are not representative of the population as a whole, and they normally are chosen for the substantive advice they can offer. Effectively used, they provide a link between the pure technical expertise of the planner and the general citizen concerns, but to work efficiently, CAC membership must be limited. However, the more limited the membership, the less true public/planner dialogue occurs. If both regional and statewide CACs are used, it is important for some regional CAC members also to sit on the statewide committee. Otherwise, regional committee members may feel they have been committed to a plan which they had no input into developing.

C. Public Education

The staff needed to implement the Social Feasibility Model should emphasize communication in the sense of adult education, not public relations. Their task is not to sell a plan as if it were a product, but rather to increase citizens' overall understanding of water resources and how projects or policies currently under consideration affect those resources.

This means agencies need to move away from the "last-hired, first-fired" school of thought. As resources become scarce, citizen involvement programs often receive the first and most severe cuts. Yet, periods of minimal funding may be the time when new project development may be hardest to justify and participation specialists most are needed. Public participation helps planning professionals achieve their stated goals and, therefore, it deserves support.

Planners do not need to feel that they carry the burden of public participation alone. Education specialists and experts in eliciting citizen values and implementing two-way communication techniques are available at state colleges and universities, state water institutes, and state extension offices. Asking for help both stretches scarce financial re-

sources and improves the quality of the water resource participation program.

D. Develop Ongoing Programs

Integrally connected to the recommendation that water resources agencies hire adult education specialists is the importance of maintaining ongoing programs that keep both the agency and water resources in public view. These programs should have the basic aim of informing citizens about water resource problems, agency goals (both mission and participation goals), and roles in solving water resource problems, including what the agency sees as the public's role. Essentially, the task is to prepare a climate for cooperation and then build on that climate when specific projects or problems arise. A continuous program of interaction and information may decrease the need for numerous hearings and workshops as plans are developed. The stages where value conflicts usually dominate are at the beginning of plan development, after alternatives are formulated but before one is chosen, and prior to final plan selection. These are the points where understanding of value preferences are most helpful.

Many techniques exist to help planners implement ongoing water resource public participation programs. Only a few key elements will be mentioned here. Most important is keeping elected officials informed and including them in participation efforts. Citizen Advisory Committees are another important element of a continuous public participation program. As the literature review showed, CAC members often are opinion leaders and can be very useful in building support and reporting community values by informing their acquaintances, gathering and giving feedback, and giving talks to such groups as Kiwanis, Rotary, League of Women Voters, and PTAs.

Other aspects of an ongoing participation program are public service announcements, exhibits, and workshops. Whatever techniques are chosen, however, the essential idea is to provide access; it is then up to citizens to decide whether to participate. Planners should not and do not need to use all the available techniques. Instead, they should choose one or two techniques with which they are comfortable, that are relevant to the particular planning stage, and that will work in a particular community. The techniques listed under the Education/ Information heading in Table 6 are expecially appropriate here.

The type of program outlined here will be more expensive than the programs currently being implemented by most states. It also will be less

expensive than the programs advocated in much of the planning literature. Further, these programs can be cost-effective in terms of preventing the waste of planners' time and other planning resources.

E. Provide Feedback

Participation at these stages will not be useful, though, unless citizens receive feedback concerning their input. The theory of substantive representation does not require that planners mimic public demands. It does require explanation of why one alternative is chosen over another and how that alternative affects the values or desires expressed. According feedback a high priority is one of the easiest, most practical, most important, and most often ignored recommendations. It is essential to incorporating social feasibility into the water resource planning process. The review/reaction techniques listed in Table 6 can be very helpful in providing feedback. Also useful are such education/information techniques as newspaper articles, newsletters, use of CAC or task force members to present the planners responses to citizens, and the Corps of Engineers' "milestone" points for checking back with the public at those stages where critical choices must be made.[9] Seeking citizen input can increase plan support if citizens (1) see that their ideas and values are considered and (2) can develop an overall idea of the planning effort. Feedback helps achieve goals.

III. Conclusion

These recommendations are designed to make the citizen participation process more open to the public and less threatening to the planning professional. Both sides must compromise in order to reach these goals. Planners need to recognize that water resource planning not only involves technical questions, but also requires social choices that emphasize value considerations. Public participation advocates cited in much of the planning literature, on the other hand, must be more realistic in their expectations. Advocated programs are complicated, expensive, and often based on the assumption that public participation's purpose is to redistribute social and political power. It is not the job of the planning community to cure the ills of a mass society. It is the planner's job to ensure that the process of soliciting community values is open, democratic, and effective.

Use of these models can help to increase the consistency, understandability, and effectiveness of public participation in water resource planning. They provide a unifying concept that can clarify much of the earlier research on public participation. What often appears to be con-

flict in the literature or conflict between the theory and practice of public participation, may in actuality merely be confusion over the type of policy, representational school, and proper planner role involved in a particular planning choice. These models are not a panacea for resolving all the conflicts inherent in water resource planning. They do, however, provide a focus for the water resource planning community, in structuring policy options, the planning process, and appropriate levels of citizen involvement.

IV. Footnotes

1. Peter Bachrach, *The Theory of Democratic Elitism: A Critique* (Boston: Little, Brown, 1967); Robert A. Dahl, *Pluralist Democracy in the United States: Conflict and Consensus* (Chicago: Rand McNally, 1967); Geoffrey Debman, "Nondecisions and Power," *American Political Science Review* 69(1975): 889-900; Geraint Perry, *Political Elites* (New York: Praeger, 1969); David M. Ricci, *Community Power and Democratic Theory: The Logic of Political Analysis* (New York: Random House, 1971); and Jack L. Walker, "A Critique of the Elitist Theory of Democracy," *American Political Science Review* 60(1966): 285-295.

2. See for example, Bruce Williams and Albert Matheny, "Testing Theories of Social Regulation: Hazardous Waste Regulation in the American States," *Journal of Politics* 46(1984): 428-458; G. William Domhoff *Who Rules America?* (Englewood Cliffs, N.J.: Prentice Hall, 1967); James Q. Wilson, "The Politics of Regulation," James Q. Wilson, ed., *The Politics of Regulation* (New York "Basic Books:" 1980); Murray Edelman, *The Symbolic Uses of Politics* (Urbana: University of Illinois Press, 1964); Jonathan K. Baum, "Legislating Cost-Benefit Analysis: The Federal Water Pollution Control Act Experience," *Columbia Journal of Environmental Law* 9(1983): 75-111; and Kenneth H. Thompson, "Margin of Safety as a Risk-Management Concept in Environmental Legislation," *Columbia Journal of Environmental Law* 6(1979): 1-29.

3. See for example David R. Godschalk and Bruce Stiftel, *Making Waves: Public Pqrticipation in Statewide Water Quality Planning in North Carolina: An Evaluation,* (Raleigh: Water Resources Research Institute of the University of North Carolina, 1980); and Helen Ingram, "Patterns of Politics in Water Resources Development," *Natural Resources Journal* 11(January 1971): 102-118.

4. Pitkin, 212.

5. See Creighton, 43-45; Gene Willeke, "Identification of Publics in Water Resource Planning," James Stewart, ed., (Raleigh: Water Resources Research Institute of the University of North Carolina, 1974); and Willeke, "Identification of the Publics."

6. *Id.*

7. Don Graf, "Improving the Workshop Process," Linda McKenzie, ed., *The Grass Roots and Water Resources Management* (Pullman: State of Washington Water Research Center, 1972), 33-35; James Hanchey, *Public Involvement in the Corps of Engineers Planning Process* (Fort Belvoir, Va.: U.S. Army Engineers Institute for Water Resources, 1975); and Edward Silberman, "Public Participation in Water Resource Development," *Journal of the Water Resources Planning and Management Division* 103 (May 1977): 111-123.

8. Madge Ertel, *The Participatory Role of Citizen Advisory Groups in New England Water Resources Planning: A Preliminary Study* (Amherst: University of Massachusetts Water Resources Research Center, 1972): 15-16; Ertel, *Role of Citizen Advisory Groups,* 119-124; and Ertel, *Public Participation,* 42-43.

9. Hanchey identifies three critical' checkpoints where public meetings should be held. Each checkpoint corresponds to the end of one of three planning stages: development of a plan of study, development of intermediate plans, and development of final plans.

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TABLES

TABLE 1
Stages

	Goal Setting	Policy Development	Policy Evaluation	Policy Choice	Policy Implementation	Policy Enforcement
No. of States	14	6	31	6	0	0

TABLE 2
Types of Communication

	One-Way	Two-Way
No. of States	20	11

TABLE 3
Types of Public Involvement Mechanisms Grouped by Primary Functional Orientation

Education/Information	Review/Reaction	Interaction/Dialogue
Newspaper Articles	Public Hearings	Workshops
Radio and TV Programs	Survey Questionnaires	Special Task Forces
Speeches & Presentations to Organized Groups	Public Inquirer	Interviews
	Public Meetings	Advisory Boards
Field Trips		Informal Contacts
Exhibits		Study Group Discussions
School Programs		Seminars
Films		Charettes
Brochures		
Newsletters		
Reports		
Letters		
Conferences		

Source: Katherine Warner. Public Participation in Water Resources Planning. Washington, D.C.: National Water Commission (1971), 49.

TABLE 4
Functional Orientation

	Education/Information	Review/Reaction	Interaction/Dialogue
No. of States	5	17	9

TABLE 5A
Policies Suited to Political Feasibility Model

Distributive policies	Regulatory policies
1. Focus on projects, allocation of resources	1. Focus on 208 guidelines, BATs, aquifer protection, etc.
2. Interest-based conflict	2. Cognitive conflict
3. Institutional barrier = individual vs. collective local interests	3. Institutional barrier = man vs. nature, management agencies vs. constituencies, and higher vs. lower levels of government

TABLE 5B
Policies Suited to Social Feasibility Model

Redistributive policies	Social policies
1. Focus on interjurisdictional transfers or reallocation of water rights	1. Focus on EIS and social impact assessments
2. Value conflict	2. Value conflict
3. Institutional barrier = public interest vs. existing institutional structure, region vs. region or "haves" vs. "have nots"	3. Institutional barrier = water vs. other needs or setting instream flow requirements

TABLE 6
Summary of Methods by Policy and Function Orientation

POLICY	Regulatory	Distributive	Social or Redistibutive
FUNCTIONAL ORIENTATION	Education/ Information	Review/ Reaction	Interaction/ Dialogue
METHODS	Newspaper Articles	Survey Questionnaires	Workshops
	Speeches & Presentations to Organized Groups	Public Meetings	Task Forces Advisory Boards
	Exhibits	Lobbying	
	School Programs Newsletters		

The Virginia Water Resources Research Center is a federal-state partnership agency attempting to find solutions to the state's water resources problems through careful research and analysis. Established at Virginia Polytechnic Institute and State University, the Center serves six primary functions:

- It studies the state's water and related land-use problems, including their ecological, political, economic, institutional, legal and social implications.
- It sponsors, coordinates, and administers research investigations of these problems.
- It collects and disseminates information about water resources and water resources research.
- It provides training opportunities in research for future water scientists enrolled at the state's colleges and universities.
- It provides other public services to the state in a wide variety of forms.
- It facilitates coordinated actions among universities, state agencies, and other institutions.

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