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THE CHANGING ROLE OF THE WATER RESOURCE PLANNER

By

David J. Allee

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This meeting was called because of the changing role of water resource planners. They need new tools to reach the "grass roots," to obtain more public participation in the planning process, because their old role as technicians is no longer adequate. They cannot marshall the technical and managerial resources of an agency like the Corps of Engineers or the Bureau of Reclamation to solve local problems by only being designers, plan formulators and planning report writers. The first part of this presentation will explore some of the ways that conflict has grown up around proposed water development projects and some of the other reactions to this conflict. Then it will try to sketch out what may be the fundamental change as far as the role of the agency planner is concerned, ending with some questions about his relationship to steps to increase public participation.

Local Needs and National Action

Water resource development projects face an interesting kind of duality, particularly from the point of view of the federal agencies. On the one hand they help do things that our conventional wisdom tells us local governments have been unable to do because they don't have the financial or the technical or the risk-taking capabilities to carry them out by themselves. They are speculative projects; you are never too sure that an irrigation project really is going to work. A canal or flood control works may not be followed by the usage anticipated with all the good faith possible put into the planning. And a poor region may never be able to borrow enough to build a big dam, nor even be able to assemble the team to plan it. The federal government is in a position to carry this kind of a risk across a lot of different projects and this in part justifies a federal role.

Water projects are one of the earliest areas of responsibility that we "kicked upstairs" from local government up to the federal government. Certainly there are still water activities at every level of government, but I think most of our concern here today is with the federal involvement.

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2/ Associate Director of the Cornell University Water Resources and Marine Sciences Center and Professor of Resource Economics, New York State College of Agriculture and Life Sciences.

That's one side of the duality. But the other side of the game is that the real activists, and most of the real beneficiaries from this activity, are local. Local in orientation, local in organization, and they have real problems getting a national consensus for what they want to do.

Now one of the results of this duality is that you have federal agencies involved that are heavily dependent on local and congressional adjudication of differences in values and other points of conflict. That's much of what we're about here today. Water projects depend on local or congressional adjudication and accommodation and do not use either the state level or the executive branch of the federal government to the same degree.

Because the Congress is organized as it is -- each member from his district -- it represents local interests more than the other possible decision-making arenas.

Reflect, for example, on the fact that the "Type II" basin study that was being discussed earlier today, with its Comprehensive Plan, has been prohibited from coming out with specific project authorization requests. In other words, it is prohibited from making recommendations in the form that specifically asks for Congressional authorization. This is reserved to a process that relates the particular agency to its particular Congressional committee. Those committees have been the place where, by approval of projects, a real plan is formed.

You also have, because of this duality, federal agencies with strong local offices. The Soil Conservation Service has an office in virtually every county of the United States, staffed by a man who is of that community for all intents and purposes. The Corps of Engineers, in its many districts has top supervisory leadership changes, but by and large the staff people are of the communities served. The same kinds of things have been said about the Bureau of Reclamation, although in recent years and against considerable opposition from the states involved, it has tried to move its focus of authority and power back to the Washington level. Similar attempts to strengthen the central control of these agencies occurs from time to time, but compared to most they are very decentralized.

The third point that follows from this duality, is a difficult and continuous process in achieving national consensus on what ought to be done. Every year or every other year, each of these agencies has to go before the Congress to decide what the next increment of programming is going to look like. New deals, new coalitions, new arrangements, are possible every couple of years between supporters and opponents of particular projects where there is really very little in common between projects except the agencies involved. In some ways you have a potentially unstable kind of system in terms of the decisions that have to be made, since they must come up for repeated annual reviews at the national level.

Changes in Opposition and Changes in Support Mean Conflict

Now one thing that's happened to change this in the last few years, and we've seen some of the reflections of it on this program is a growing

national interest in the negative effects of traditional water resource development projects. A nationally-based opposition implies that coalitions at the federal government level are much more difficult to achieve simply through modifications at the project level. The proposed damming of water into the Grand Canyon, of recent memory, is a good case in point. Essentially a national reaction caused a substantial shift in the kinds of deals and kinds of plans that were possible. Coalitions became much more expensive to bring about. As a result of the national character of this interest, we've seen the presidential portion of the Executive Branch coming in on a much more overt level on the anti-dam side than has been the case before. This happened in the Grand Canyon episode where the Secretary of the Interior personally took a major role in finding a way to work out a deal on the Colorado River.

A more recent case is the Cross-Florida Barge Canal. Certainly the cabinet and presidential level staff have been involved, and they have more to lose than to gain from the overt public support to projects of this kind. Therefore, you see them visibly coming out when they are opposed, more often than when they are in support.

Now obviously the Congress and the agencies involved are far more sensitive to conflict over the environment than in the past because environmental groups have developed far more clout. Another example is when the environmental coalition, as it is sometimes referred to, bumped Mr. Nixon's first request for sewer aid, from $214 million up to eight hundred million and now it is over a billion per year. And ladies, you should take some pride in this, because certainly at the center of the coalition was the League of Women Voters. Now if you could just get that program to be more an environmental protection program than a city aid fund. This success came shortly after a time when the U. S. Senate, came within only a few votes, of halting the public works portion of the budget as an anti-inflationary step.

Some Responses Designed to Stabilize the System

The Council on Environmental Quality has been mentioned by other speakers. It was created along with the requirement for five-point impact statements on all projects by the National Environmental Protection Act. The observation has been made earlier that this indeed may change the planning process. The CEQ and the "102" statements can make an overt identification of environmental problems much earlier in the game and cause much more sensitivity on the part of the planners and the agencies. I agree that this is a possibility. However, if you are concerned with environmental values, be realistic about the promise of the Council on Environmental Quality. Its present staffing level, and I suspect it will be that for some time, is at the 40 to 50 professionals level. The Corps of Engineers permit program for waste discharges under the 1899 Refuse Act could generate some 7,000 permits per year, with five-point statements on each one. There goes the CEQ's staff capacity to do very much but respond to the obvious major controversies.

Potentially more important in terms of the environment, I would suggest, is the Corps' exploration of a role in water quality planning and the recent agreement that they made with the Environmental Protec-

tion Administration on such planning. The nation has invested several hundred million dollars in so-called comprehensive water quality planning and it is difficult to see where these have had much impact on the actual building of treatment plants. A recent review by the Congress' General Accounting office could find no impact at all. If the "know-how" of the traditional water development agencies can be turned to building coalitions for waste treatment plants more relation between plans and plants may result.

A third example of a change in response to the growing environmental awareness is the greater feasibility of citizen's suits in the courts and what they mean in terms of environmental values. This is an event that has much potential to change the general rules under which we operate. It was not very many years ago that I taught in my classes that you can forget about the damage suit as a tool for water quality management. This had been tried and the agencies and those concerned with air quality, with water quality had made attempts along these lines and everybody agreed that it was infeasible. The courts were too cumbersome, what you needed was an administratively strong process to enforce water quality standards. The Environmental Defense Fund and a number of others have proved how wrong we were in this view by changing the law itself.

Moves to Contain Conflict are Not New

But the changing role of the planner goes back before the present environmental era. The increasingly difficult task of getting agreement began long before we worried about ecology. Let me dwell a little bit on some of the symptoms.

One example -- technical reviews within agencies have become almost stifling as far as the planning and development process is concerned. Eight years is the average length of time for the Corps to crank out a survey report. This is sometimes hung on the fact that they've got to coordinate with so many different other agencies. There have been a number of reviews by the Corps as to why it does take so long for a survey report to get out, there is some evidence to suggest that it is more the internal review process that takes so long. The field work gets done in a year or eighteen months. Then the District Office spends the next five or six years trying to convince the Division staff, the planning division up on the Washington level, the staff of the Board of Engineers on Rivers and Harbors, that indeed what they're proposing is technically sound and was developed in accordance with good, sound engineering practice. There's been more bloodletting, I suspect, over what kind of hydrology to use on a project than perhaps any other area of disagreement. Controversy exists between the agency and the outside world, but the conflicts within the agency are equally time-consuming and difficult. Every agency faces this if they're going to do anything worth their salt.

Now I suspect that much of this has come about as kind of a natural response to the threat of outside conflict. A very healthy kind of conflict and response to it that can become unhealthy if overdone. In other words, the elements of the project do become part of the controversy.

If you're against a project because of good, sound, selfish reasons, you may not want to display these. So you pick some technical point on which to attack the project. The wrong hydrology was used and it's a no good project because of it. The hierarchy within the agency really responds to make sure that at least on those points which they can review you won't be able to attack their projects with any technical validity. Thus, even on projects where there isn't any hint of conflict they still run into these kinds of technical conflicts within the agency. Such over-emphasis on technical purity is a response to something more than the environmental question, but certainly in recent years it has become related to it.

But how about this question of more elaborate coordination with other agencies. It has certainly taken place and stems in part from the natural interest of self-protection. The Corps reviews SCS projects and Bureau of Reclamation projects. It is responsible for reviewing flood control features and benefits. A review by the Federal Power Commission is required if there are any power attributes. Power benefits are the focus and that delightful creature, the alternative federal power plant, as the basis for benefit estimates. I don't know that anybody ever really built one.

More recently, the Bureau of Outdoor Recreation checks recreation estimates. And, of course, there is the long-standing interest of the Fish and Wildlife Service in reviewing projects. Bargaining over mitigation features to replace damaged habitat is often quite spirited. These all represent potential points of conflict and more elaborate coordination activities have been developed within the system to try to avoid that conflict.

The fact that there is a large pool of authorized, but non-funded projects may be a symptom of the problem here. The Congress has chosen to authorize many billion dollars worth of projects, but has not chosen to put any money in them. It would take over ten years of present funding to catch up if we added no more. Congress satisfied some pressures of their constituencies, apparently, by giving them at least the dry bone of authorization and many are still waiting for a little meat. Questions have been raised as to how useful is the authorization process. Other agencies are beginning to say, why take the authorization planning seriously (and remember that comes after the comprehensive plan that was discussed this morning). Instead, wait until they get to the construction phase, when they really get serious about what it is they're going to build. This attitude can torpedo the project planning step as a really viable means of producing genuine agreements, real decisions, real coalitions, real political decision-making.

Some say, this build up of the pool of authorized projects is due to a shift in national priorities. We've kicked so many other things up to the higher levels of government that now water is such a small part of the federal activity that it gets pushed down and doesn't get the attention. There is enough interest to get authorization but not to go the next step. I'm sure there's a strong element of truth in that, at very least there is a wider array of options available to attract the effort of local leaders besides water development. But

there is a rising level of conflict in water projects. Agreement is far harder to get and to hold than it used to be.

One reaction to this conflict has been an increased emphasis on the kind of comprehensive planning that was discussed this morning. This planning produces river basin interagency agreements on project lists that are generally bounded by some kind of a needs projection. Priority setting is carried out to the extent that an early action plan is specified and other projects are put into a deferred category. This is a tentative offering of some projects as trial balloons for wider support. The scope for maneuvering is kept fairly wide because this is so far away from the real decision-making. This need for a list from which to choose helps explain a preference for rather high needs projections in basin planning. Attacking the technical validity of projections as real predictions can miss their political significance as merely a device to make the choice list more manageable.

Basin planning is an attempt to build up an inventory of real options for final bargaining. Real options in the sense that they have passed a series of technical tests. They are feasible with respect to engineering and the benefit-cost test. Such planning is in response to the awkward position which single project planning can produce for the Congress and the agencies. If A was proposed opponents could promote B and C as alternatives. And if B and C haven't been studies a stalemate is easier than if they have. This is not to say that basin planning couldn't usefully consider even more alternatives than it does. Rather it is to say that it covers more than we used to, proposing one project at a time.

But, exploring political feasibility is something that the present planning process is only partially able to provide. This is really why the interest is growing in expanded public participation is so important. Present arrangements give you a means to check with other agencies. To the extent they take it seriously this is part of the battle. But citizen groups who are affected, and any commitment by the Congress, are essentially left out. Too often today these are fatal omissions.

Basin planning is such a laborious and technical process -- as conducted in the past -- that citizen groups and elected officials are difficult to plug in. The language that we've used to develop the dogma of comprehensive planning is also a problem. For example, technical statements of needs and goals rarely have wide meaning even to activist citizens and elected officials. I think that and our timing of involvement is still encumbered by the notion that there is some one single perfect plan. "Know ye the truth" -- that means go out and do the studies. "Reveal the truth" -- publish the plan. And all will know the truth and shout huzza and charge off to Congress to get the money! I think you'd agree there is no one perfect plan in the sense that technical perfection is closely related to a workable level of agreement. So if you want one of these comprehensive planning processes without congressional input, without the input of the major interest groups at the local level, then this system just simply isn't equipped to make final decisions.

Another problem is the scope for bargaining provided in basin planning. Certainly there's been more emphasis on low-flow augmentation.

There's been more emphasis on recreation, on storage for municipal and industrial use, but still in recent years the basic output we have given the planning process to work with is dams and channels. These can be linked through the agencies to the process. You can't even build a waste treatment plant as a result of the comprehensive planning activity today. The decision-making process for sewers is to be removed from the planning. Inducing significant changes in flood plain land use is perceived as unworkable. Here the agencies involved haven't developed the tools or been given the mandate to use them. The real output is limited to the existing safe activities of the agencies that can use the planning process directly to support their programs. Either broadening the tools available to the agencies or putting more agencies on a direct project basis would be steps toward adapting comprehensive planning to facilitate conflict accomodation. I think these steps must be taken.

One thing this comprehensive planning process has done is increase the amount of information available to groups potentially opposing traditional solutions for water development. It has given them more opportunity to get organized and get into an effective bargaining position. And more of this is certainly what expanding the public participation process, if it is to achieve anything, is probably going to do. More reason to see that the scope for bargaining is increased. Considering the great opportunities that these groups have for blocking projects now, it is increasingly important that agreements are made earlier, and of course this means responding to their interests. Non-traditional solutions to water problems, again, will be called in.

The Title II River Basin Commissions such as that which Don Lane heads for the Pacific Northwest are a good step in the right direction. They provide a broader bargaining arena. They also provide a continuous bargaining arena, something the usual one-shot basin planning effort has not provided. They raise the possibility of linking in more effectively the Cabinet and Presidential staff levels through the Water Resources Council. The states are certainly tied in more closely and they are becoming more important participants. Hopefully, they will produce better coalitions and bargains that will stick together and produce something.

The move toward multiple objective planning is also potentially important in helping achieve more solid agreement. The proposal by the Water Resources Council is to use four accounts to determine whether or not a project is justified. The traditional benefit-cost ratio which has been renamed the economics development account is joined by a natural environmental quality account, regional economic development, and social well-being. Basically, the social well-being account is a place to put anything worth considering that doesn't fit in the first three. Benefit-cost analysis was rarely used in the past to optimize national economic values. It was more a means to limit inter-regional transfers of income and limit the technical sophistication used to solve a problem. Local income created was limited to the total cost of the project. Projects were formulated with technical possibilities in mind and benefit estimation possibilities put a limit on investment. Now there is at least somewhat more pressure to formulate projects with a wider range of social values in mind. The scope for agreement should be greater.

A multiple objective planning philosophy will give an opportunity for greater access for environmentalists, more information for them, and hopefully make it easier to find ways to accommodate their interests in the process. Now there are some obvious problems that were always there but are highlighted by multiple objective planning. How do you get politically acceptable reflections of such intangible values as environmental quality or social well-being without more effective political input, which is what I think we mean by public participation. We have to substitute some kind of a political proxy to estimate these values. We have developed many ways to estimate proxy values for many things involved. For example, there are practically none of the outputs of a water resource project that are really sold on a competitive market. But we've become very adept at working out pretty satisfactory market proxies for such things as flood control or irrigation -- i.e., the direct traditional benefits. And although research has generated some estimates that are technically equally good for other values, the hope of getting them accepted politically is years away. The point is we're having enough trouble selling the market proxies we use now. So we need some political proxies and these come in very different forms than dollar units.

Fragmented Communities Change the Role of the Planner

But why all of this? There is a rising level of conflict in our whole society. It is more difficult to act on water problems than it used to be, and indeed to act on any kind of problem. Some of this is a shift in values. Ecology means something it didn't used to. The poor mean something more than they used to. Blacks mean something. These kinds of shifts in values are certainly part of what's involved. Also, I suspect that there is a fundamental shift in the political decision-making structure in our local areas that explains a lot. An earlier speaker told of some county boards of supervisors that took so long to do anything about some workshops that were proposed. I suggest to you that they are responding to the realities of the political situation that they face, and probably quite reasonable. Perhaps they were waiting to be sure that if there wasn't substantial support at least there wasn't significant opposition. The more fragmented the community, the more this kind of reaction you can expect.

Now I don't mean fragmented in terms of the usual notion, divided up into various jurisdictions and agencies, but rather fragmented in other ways. The point is, neighbors don't talk to each other as much as our folks have, at least, suggests that they did. At one time did we have a nation of communities where the neighbors all talked to each other and thought alike or at least let the same few do the public decision-making. Maybe we did. But a lack of community solidarity behind any consistant set of leaders is a feature of our present political system. And the more fragmented a situation, the more the planner must be a broker, must be a mobilizer, rather than a technician.

Yet by and large we have not allowed him to be the mobilizer, the broker, but insisted that he be a technician. At least we insist that he wear the technician's hat as a kind of protective coloration. People listen because he's a technician. Some insist that this is an important

aspect of the whole planning process and that in fact planners have been good mobilizers and brokers between conflicting interest groups posing as simple technicians.

The point is that in a group as sophisticated as this audience we ought to be able to talk about it in those terms rather than pretending it is all a technical process.

A political scientist colleague of mine at Cornell, Alan Hahn, suggests that it helps to picture four kinds of political decision-making structures. For the first one, think of one great big triangle. Lines of power tend to have their ultimate source in one man or a very small number of men at the top of the triangle. Decision-making tends to be highly centralized, with lower echelons mainly carrying out the major policy decisions made by the small group at the apex. Conflict is largely absent since there is considerable agreement on values among the decision-makers and they are not seriously questioned by others. When bargaining takes place it does so within a highly structured and relatively stable system. The planner can be, indeed has no choice but to be, a technician. The objectives and the values are clearly spelled out by this decision-making structure. Agreement and support are not his problem. All he has to do is figure out what it is they want to get done and then as a technician he tells them how to do it. That's one model.

Now for the second model visualize three pyramids and a leader with a lasso, throwing the lasso around the tops of the three pyramids and pulling them in. He is apt to be some kind of an executive, and this model is referred to as the executive centered coalition. Here the leadership group is larger and comprised mainly of public officials and prominent private individuals representing many major interests in the community. You can see the parallel to the first model. Decision-making tends to be a matter of manufactured consent among the few who make up the caucus and represent groups that are otherwise quite separate. But the caucus is generally brought together by a single individual. To be an effective planner you've got to get close to the caucus. You might get a chance to help it form, but not likely. The planner's boss may become a member of it. The planner continues to be a technical advisor. Decisions above values will be made by this group. The objectives will be passed on to the planner, who will receive them and tell them how to achieve them.

In the United States, we may never have had these two kinds of models at the national level. They may have existed at the local level quite commonly, but when you moved away from the immediate community they no longer applied. And they don't apply very well today even at the community level.

There is some evidence that planners in agencies like the Corps and the Bureau are playing a larger role in budgeting processes than they once did. I interpret this as a response to a change in local political structure from the above models to those below. When support was easy to gauge, one man -- a budget officer or a regional agency chief -- could make the necessary judgments about allocation of funds. Now the planners are brought in to help.

Picture for the third model seven or eight pyramids, and three or four leaders throwing lassos trying to corral them in. Each may link up two or three at one time on one issue; maybe another time bring together two or three on another issue. In contrast to the executive-centered system where one leader is prominent because of his ability to knit together existing groups, the competitive form, as this is known, occurs where there is more than one leadership group, each in competition with the others. They may be party identified or they may not be. While political control of the community does not necessarily alternate, in other words one group might stay in control, cohesiveness of the whole community has declined to the point where the group in power is constantly challenged and alternative groups regularly present themselves. Separate power structures are definable for different spheres of community activity. Typically, local government is in the hands of professional politicians with the community service organizations in the hands of the business and professional groups.

The broker role is the only one available to the planner in the competitive form of a power structure. If he tries to be a technician, he'll probably end up talking to himself. He must offer variations and options that help form coalitions. He must sense what kind of a variation of a project or mix of projects can be offered that will get these groups together so that they will give support and move on to a decision. Becoming too closely identified with one competitive leadership group may reduce his effectiveness over time. He has to be flexible. If he just cranks out plans that are not responsive to the need of forming coalitions nothing will happen. In that event his technical input will be provided by somebody else; he'll find somebody else playing the game that he thought he was paid to play. Plans are then less relevant than forming coalitions.

Finally we move to the much more completely fragmented system. You can just visualize a whole lot of little triangles. In the extreme, there aren't even very many leaders or executives who try to hold a continuing leadership group together -- issue after issue. Rather persons in elected or appointed positions of power lie back and wait for conflict to resolve itself, or at least wait until they are sure it won't arise. One political scientist has put forward a "dentist's" theory of democracy to describe this situation. Officials are viewed much like dentists by the electorate. They have little ability to judge their skills on the basis of merit so they use personal characteristics and evidence of conflict. If there is conflict -- regardless of the merits of anyone's position -- there is a presumption in favor of dumping the official.

For the planner to be effective in this fourth model, he has to play the role of the mobilizer. He has to find ways to pull enough of these different groups together to have an effective level of support, and this is an extremely political process. Just writing up plans that might be accepted by a variety of diverse groups within the community is not enough. He doesn't simply offer proposals that will bring already existing groups together. He also has to prevent the planning process from succumbing to the inertia characteristic of decision-making in the fragmented community. He has to play a far more active role, persuading

otherwise uninvolved groups to support a proposal, actually organizing new groups to represent an interest, to bring them into the bargaining process, so that they won't later appear and block something that he wants to do by simply creating conflict. Obviously this means he has to adapt his plans to their interests, and learn to manage conflict.

Are you prepared for the planners of the future becoming mobilizers? Planners may have no other choice if they are to solve problems. The public participation process then becomes one where planners recruit groups to support future projects. Indeed, while recruiting they don't even know what the projects are going to look like. If you don't see this role for the agency planner in public participation, then who is to carry it out? And how is the agency planner to be related to the mobilizer? Should the public participation process be left solely in the hands of the planners? Who else should help organize it?

References

Terry N. Clark, Editor. Community Structure and Decision Making. San Francisco: Chandler Publishing Co., 1968.

Floyd Hunter. Community Power Structure. New York: Anchor Books, Doubleday & Co., 1966.

Helen M. Ingram. Patterns of Politics in Water Resource Development: A Case Study of New Mexico's Role in the Colorado River Basin Bill. Albuquerque: University of New Mexico, Institute for Social Research, 1969.

Richard E. Newstadt. Presidential Power. New York: New American Library, 1964.

Vincent and Elinor Ostrom. "Public Choice: A Different Approach to the Study of Public Administration," Public Administration Review. March/April, 1971, pp. 203-215.

Norman Wengert. "Public Participation in Water Planning: A Critique of Theory, Doctrine and Practice," Water Resources Bulletin. February 1971, pp. 26-32.