

DEVELOPING STAKEHOLDER CONSENSUS IN WATER RESOURCES PLANNING

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Abstract. Solving water resources challenges is becoming increasingly complex. Single purpose projects are being replaced with multi-benefit solutions that seek to address water supply, water quality, environmental enhancement, recreation/open space, and economic revitalization. Because of this, stakeholder involvement is becoming a standard addition to many water resources planning efforts. Understanding diverse community interests, gaining public support and developing consensus among key stakeholders is becoming critical to the success of water plans and the subsequent implementation of projects called for in those plans. Without public support and stakeholder consensus, many plans and projects are being routinely challenged in the courts and legislation. To gain true consensus requires a level of public input and ownership not typical in water planning. This paper presents some of the techniques used to develop stakeholder consensus, including how to set up a stakeholder process, rules of stakeholder engagement, decision support tools, and facilitation skills required.

INTRODUCTION

Successfully developing stakeholder consensus begins with open, public processes designed to incorporate community values and make policy and planning decisions completely transparent. They bring together agency staff, interested community stakeholders, and representatives from other agencies. They are usually led by agency staff, at the direction of elected and appointed decision makers, and involve explicit stakeholder participation. Often they rely upon consultant support for process facilitation and technical analysis.

In some cases, the forum provided by this kind of process represents the first time that peer agencies and utilities have come together in a joint discussion of their responses to emerging issues. Particularly in the area of water resources management – where surface water, wastewater, groundwater, recycled water, and stormwater utilities inevitably impact one another – recognition of the need to take a broad “systems” perspective to any problem is essential.

In a book called, *Are Your Lights On? How to Figure Out What the Problem REALLY Is*, two systems scientists, Don Gause and Jerry Weinberg, provide the following definition of the word “problem.”

“A problem is a difference between things as desired and things as perceived.”

It is an interesting choice of words. They did not define a problem as the difference between what we “have” and what we “need.” It’s the difference between desires and perception. Desire and perception are humanistic concerns, affected by more than just the empirical data that feeds them.

And yet in the world of science, engineering and regulation, the difference between what is desired and what is perceived is generally empirical, specific, quantifiable, and inflexible. We need to deliver a desired quantity of water, which meets certain water quality criteria, at a specific rate and pressure, to a known number of households. This is the kind of problem we are used to solving. Most of the rules are found in published regulations and textbooks on hydraulics and water treatment, and the mechanics of possible solutions can be precisely modeled.

It is when we pull back from regulations and facilities engineering and incorporate more of the surrounding stakeholder interests and influences that affect or our impacted by any change in our environment that the definition of what is “desired” becomes more complex. And “perceptions” of what “is” become more diverse, conflicting, and idiosyncratic. Stakeholders and decision makers often know a great deal about certain aspects of a problem, but they may know next to nothing about others. Still worse, in many cases, what they think they know is incorrect. The appropriate proverb states:

“It is better to know nothing than to know what ain’t so.”

But frequently, knowing “what ain’t so” is the starting point for many public discussions.

In framing the problem, taking a broader systems view can yield dramatically different results, and in many cases it may be the only means of relating primary water resources decisions with the most pressing issues of stakeholders. The precise relationships between causes and effects maybe only partially understood – and therefore somewhat “frightening” to the engineering and science-oriented participants in the process. On the other hand, if some broad systems analysis is not attempted, many stakeholders will hold fast to preconceived notions and resist supporting otherwise defensible decisions.

OVERALL APPROACH

A well organized and executed stakeholder process can lead to numerous benefits when developing a water resources plan. These benefits include: (1) building trust among customers; (2) buy-in from the community; (3) respect among adversarial advocacy groups; (4) reduced litigation/opposition to project implementation that results from the plan; and (5) the introduction of new perspectives and diverse interests into the planning process.

CDM has facilitated numerous complex water resources plans that involved stakeholders, some of which included:

- Statewide Water Supply Initiative for Colorado
- Los Angeles Integrated Resources Plan
- San Diego Long-Range Water Resources Plan
- Metropolitan Water District Integrated Resources Plan

All of these plans, while unique in terms of technical, institutional, and political issues, were successfully developed because of a well-structured stakeholder process. In all of these cases, stakeholders contributed valuable input and became advocates for these plans.

In San Diego, stakeholders participating in a strategic plan for water supply were responsible for swaying the City Council to adopt three back-to-back water rate increases. Prior to involving stakeholders, the water department had been unable (for almost 10 years) to make a good case for needed rate increases.

Involving stakeholders or the public in water resources planning is not new. However, the typical model was either one-way communication at or near the end of the planning process; or an adversarial confrontation between stakeholders and agency staff, which often bogged-down the process or brought it to a complete halt.

To be truly successful, a stakeholder process should engage participants early and through-out the plan. It should be structured, but flexible. It should build trust over time, and should allow for revisiting of the goals and project implementation.

The first step in a successful stakeholder process is to identify who the stakeholders are. This will be different for each plan, depending on the scope of the plan, complexity of the problem, and political climate. One fatal flaw is often excluding those stakeholders that are thought to be opponents or “anti-project”. Although the stakeholder meetings might be less confrontational, excluding these stakeholders sets the process up for failure. Such adversarial stakeholders will claim the process was rigged, and come out fighting even harder against the recommendations. Including these stakeholders from the beginning can have some very positive impacts, such as: (1) allowing for creativity and forcing bureaucrats to think outside the box; (2) building mutual understanding of each other’s issues; and (3) allowing for other stakeholders to take the lead in marginalizing any false or purposely misleading statements that some adversarial stakeholders may use in an attempt to derail the process.

If the plan is a local one, examples of stakeholders that should be included are neighborhood councils, homeowners associations, chamber of commerce, league of woman voters, university professors, local environmental groups, major industrial customers, community leaders or elected officials, and representatives from other agencies or departments impacted by the process. If the plan is regional or statewide, it is important to have representative water providers at the table, as well as state and federal regulatory agencies.

There are six major attributes for a successful stakeholder process:

1. *Have a road-map:* At the start of the process, lay out the meetings, what will be covered, and what the rules of engagement are for the stakeholders.
2. *Be flexible:* All good processes need to adapt as the plan is being developed—don’t be afraid to alter the schedule if there is good reason.
3. *Adhere to meeting times:* Don’t go over the allotted time for each meeting—remember these are volunteers whose time is precious.
4. *Don’t allow any one stakeholder to take hostage the process:* All stakeholders need to be heard, but once a point or position is made, don’t allow a stakeholder to belabor the point—keep the process going.
5. *Don’t be defensive:* One of the most typical mistakes made in stakeholder meetings is when bureaucrats or agency staff are defensive—don’t feel it is necessary to correct or talk down to the stakeholders.
6. *Follow up:* If there are questions/issues brought up at the meeting, put them in a parking lot (giant pad of paper) and respond back to stakeholders in writing within a week or two—this keeps the meetings moving and shows a responsiveness to the stakeholders.

FOCUS FIRST ON OBJECTIVES

Consensus-building should focus on establishing basic stakeholder values and the common purposes that should be achieved by an agency's decisions, actions, programs, and projects. Defining what are called *fundamental objectives* will serve as the basis for evaluating alternatives, justifying action, and building consensus.

In a very useful book entitled, *Value-Focused Thinking: A Path to Creative Decisionmaking*, Ralph Keeney makes this same distinction in asking decision makers to sort out the difference between what he refers to as *fundamental objectives* (the "why") and what he calls *means objectives* (the "how") for any decision or problem.

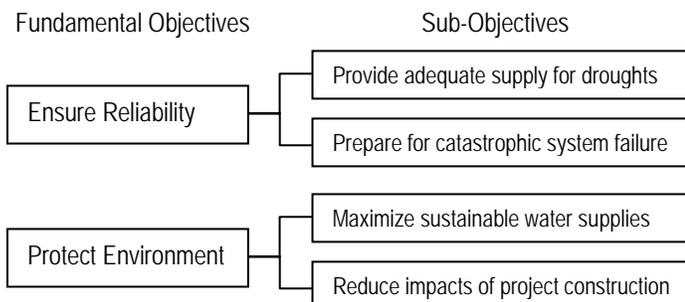
Our experience is that decision makers and stakeholders frequently begin by focusing on, or actively advocating the means (or how) rather than the more fundamental objectives (or the why). They may arrive at the first meeting knowing that additional water treatment, or more source control, or stricter regulations, or water conservation is the answer. It is not that these preferred "means" aren't valuable. But how can we assess their relative contributions without an agreement on what fundamental objectives are being addressed. As Gause and Weinberg (1990) point out:

"Don't mistake a solution method for a problem definition—especially if it's your own solution method."

Building broad-based consensus starts with asking groups to define their fundamental objectives. Establishment of fundamental objectives should be as inclusive of stakeholder interests as possible. That is, the process continues until everyone acknowledges that their individual points-of-view are reflected in the output.

Generally, these objectives are organized into a hierarchy that moves from the general to the more specific. Figure 1 shows an example of hierarchy of objectives, showing both fundamental and sub-objectives.

Figure 1. Example of Objectives for Water Planning



The importance of defining fundamental objectives before alternatives (or the "means") are identified and analyzed can be illustrated by what is typically referred to as "position-based" vs. "interest-based" negotiations. When stakeholders are position-based, there is often little hope for arriving at consensus amongst a large, diverse group. Moving stakeholders to being interest-based offers a real chance for successful consensus-building.

Let's illustrate with an example of two stakeholders participating in the development of a water supply plan. In this plan, there is a need to find alternatives to meet growing demands on the system. The first stakeholder's *position* is that the solution (the means) for the plan is to build a new reservoir. The second stakeholder's position is that the solution is more water conservation, and not new facilities. With these positions, it would be difficult to reach consensus since any alternative with a reservoir would be unacceptable to the second stakeholder, and any alternative without a reservoir would be unacceptable to the first stakeholder. By questioning the stakeholders more carefully their true *interests* are revealed. The interest of the first stakeholder is to ensure reliability during droughts, while the interest of the second stakeholder is to protect the environment. When these two interests (or fundamental objectives) are presented to both stakeholders they agree that both interests are important. By getting the stakeholders off of their positions, there is now a chance that consensus can be reached. Alternatives that provide for reliability and protection of the environment will score well for both of these stakeholders.

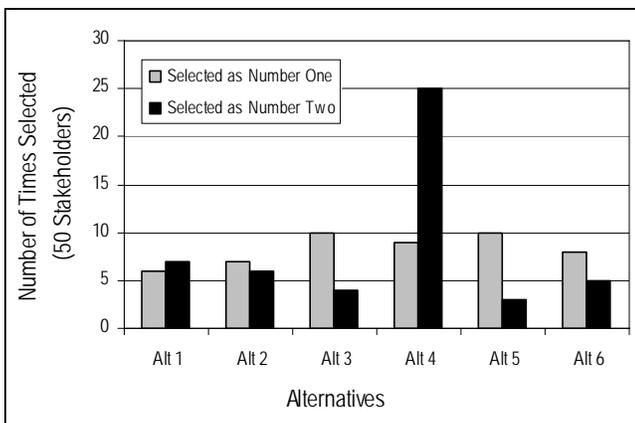
The other important aspect of defining the fundamental objectives is determining the relative importance that stakeholders place on them. For example, while all stakeholders may agree that there are five fundamental objectives, each stakeholder may place a different importance or "weight" on each objective. An environmental stakeholder may place higher weights on improving the environment over creation of jobs, while a stakeholder representing a neighborhood council may put a higher weight on improving drinking water quality. It is important to keep track of individual preferences or weights, rather than try to average these weights across a large group. In this way, each set of alternatives can be scored for every individual stakeholder.

We can illustrate this technique with an example. Let's say we have 50 stakeholders and they have each weighted the fundamental objectives. Many times, the average weight from all 50 stakeholders is used to evaluate or score the alternatives. However, by averaging the weight or relative importance that stakeholders place on these objectives is creating an artificial and sometimes meaningless indicator of the group. The preferred method would show how anyone stakeholder, based on their specific objective weighting, would rank the alternatives. Then we could see how many times a specific alternative

INCLUSIVE AND CREATIVE SEARCH FOR ALTERNATIVE SOLUTIONS

is ranked number one, or number two, three, etc. Figure 2 summarizes how 50 stakeholders rank six alternatives. As shown, there is little consensus on the number-one ranked alternative (no one alternative gets more than 10 votes for number one). However, 25 stakeholders chose Alternative 4 for their second ranked alternative, a clear consensus. Had we averaged the weighting of objectives between all 50 stakeholders, we might not have seen this common ground. Although this method can seem daunting, it can lead to remarkable consensus among a large, diverse group of public interests. In addition, there are many software tools that can speed up the calculations of weighted scoring.

Figure 2. Alternatives Ranked by Stakeholders Using Individual Weights for Objectives



DEVELOP QUANTIFIABLE PERFORMANCE MEASURES

In order to evaluate the relative attractiveness of alternatives constructively, it is essential to develop quantifiable performance measures that serve as the indicators of how well specific alternatives are expected to perform in achieving the fundamental objectives. Agreed-upon metrics for gauging the accomplishment of fundamental objectives is often a tedious and complex task. On the other hand, this effort provides the tangible linkage between the world of humanistic goals and values, and the world of science and technology. Like the establishment of fundamental objectives, consensus on performance measures should be driven by inclusiveness. At the same time, the practical availability of data and forecasting tools should be considered. There is nothing to be gained by establishing performance measures for which data or values cannot be developed. Often proxies or qualitative measurements must be used to capture the performance for some fundamental objectives.

As important as any other aspect of the consensus-building process is the incorporation of an open-minded and broad search for creative alternatives. Conversely, nothing alienates individual stakeholders more than the early dismissal of ideas and concepts that they have brought to the process – however out-of-the-box they may be. It is more effective to encourage creativity, inclusiveness, and innovation in the discovery and development of alternatives that can potentially achieve objectives, recognizing that technology can be combined with non-structural programs that contribute to success.

Creatively searching for integrated approaches and alternatives that address multiple objectives is where excitement and discovery can bring diverse groups together and result in truly innovative policies and programs.

In the development of the Integrated Resources Plan (IRP) for the City of Los Angeles, this inclusive and creative feedback among stakeholders and agency staff was the main reason for success. Stakeholders successfully advocated for consideration out-of-the-box approaches to water management such as the capture and reuse of stormwater for water supply (a method that both improved water quality and reduced the need to import water from hundreds of miles away). Consultants had to evaluate the true merits of such technology and the costs. But in the end, these innovative alternatives were part of the preferred alternatives that are being evaluated in the environmental permitting phase of the project. What is truly amazing with this example of consensus is that the Los Angeles IRP started out with 21 detailed alternatives and in less than a year, four alternatives were selected by stakeholders as being the best performers.

DECISION TOOLS HELP GUIDE CONSENSUS

Another significant contributor to consensus-building is the understanding that decision-making tools can promote and encourage group consensus around decisions, but they are no substitute for the actual thought-process and emotional responses that lead individuals to decisive positions and solid agreements. Tools can assist decision makers to more clearly see trade-offs amongst alternatives, but they shouldn't tell them what to do. Scoring is the starting point for that iterative search that explores the combination of technology, institutional, and economic solutions that does the best job in achieving the multiple objectives for a community. Decision tools that can best represent an entire system (physical, water delivery, economic, environmental, etc.) can be very powerful in showing the responses to different actions taken.

Finally, as decision makers who hire the decision science specialists and consultants, you may need to remind them that you make decisions, while they provide the tools, analysis, and recommendations.

ON-GOING COMMITMENT TO REVISIT, REFINE, AND RESPOND

Consensus must be constantly re-created and reinforced. People change, issues change – everything changes. Adapting to new conditions, new interests, and new information is essential to maintaining consensus once it is established. It is important to keep the process alive as an on-going effort to revisit, refine, and respond to changes in priorities, the actual performance of selected solutions, and the new challenges that inevitably appear to test the fundamental objectives and values of a community. As projects and programs move forward, these agencies are not afraid to ask the questions: “Have our objectives and values changed since the last time we explored them?” “Are there better ways of achieving our goals?”

Finally, the unanimous agreement that is most significant is agreement among participants that all of their individual and often idiosyncratic values and views have been considered, respected, and genuinely incorporated into final recommendations and decisions.

CONCLUSIONS

Involving stakeholders in the development of a water resources plan can be intimidating to an agency that may see this as giving up control. It can also be seen as expensive and time-consuming for a planning effort. However, the pay-off – if successfully done – can be significant. A good stakeholder process can build long-lasting trust between agency and customers. It can create advocates where adversaries existed before. It can reduce the potential lawsuits and opposition when in the environmental permitting phase of project implementation. And finally, it can help achieve fundamental objectives in ways that were not thought feasible.

One last piece of advice that we can offer it is to be patient with the process. Often, a stakeholder process starts off fairly smoothly. Diverse stakeholders can often reach rapid agreement on the fundamental objectives. But then, when the alternatives are being identified and analyzed, stakeholders can become territorial and confrontational. Often stakeholders battle each other, as well as agency staff. This part of the process has been referred to as the “groan zone” (Kaner, 2003) and is the true test of a stakeholder process. Many times, an agency in this phase of the process pulls back, holding vital information in fear that it will come back to bite them. This, of course, only leads to mistrust.

But if the process stays the course and stakeholder views are incorporated (even if they are not part of the recommended alternatives), a level of consensus can be found. And in the process, stakeholder ownership of the plan is often accomplished. A well-trained facilitator can help ensure that the process gets through the “groan zone”. A facilitator’s role will be to encourage full participation, promote mutual understanding, provide new ways to view the problem more creatively, and foster inclusive discovery of solutions (Kaner, 2003).

Nowhere can this be illustrated more effectively than the Statewide Water Supply Initiative (SWSI) for Colorado. A severe, long-lasting drought forced many water providers to implement mandatory restrictions on urban use; agricultural users only got a fraction of the water they needed; and impacts on streams and lakes caused problems for recreation and the environment. In Colorado, all water is essentially allocated. The purpose of SWSI was to take inventory of local water supplies and demands, identify how water providers were going to meet future needs, and to develop some preliminary alternatives when gaps between future demands and planned supplies existed. However, at the start of the process there was great mistrust between water providers and the state agency responsible for implementing SWSI. Many water providers wanted the state to stay clear of their own water planning.

But, by engaging all major stakeholders in the eight river basins of the state, an ownership of the plan emerged. Rather than focus on top-down state planning of water supplies, SWSI focused on developing inventories of local success, and offered solutions where gaps remained—such as financial support, regulatory planning assistance, and decision support. Although no consensus was reached on some of the more controversial alternatives that SWSI presented, it did open the door for future dialogue. The next phase of SWSI will focus on some of these controversial alternatives, but it will do so in an open and participatory manner that has never been done in the past.

It is this openness, inclusiveness, and dedication to finding common ground that true consensus is built.

LITERATURE CITED

- Gause, Donald C. and Weinberg, Gerald M., *Are Your Lights On? How to Figure Out What the Problem REALLY Is* (New York: Dorset House Publishing, 1990)
- Kaner, Sam, *Facilitator’s Guide to Participatory Decision-Making* (British Columbia, Canada: New Society Publishers, 2003)
- Keeney, Ralph L., *Value-Focused Thinking: A Path to Creative Decisionmaking* (Cambridge, MA: Harvard University Press, 1992)