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Beyond "buy-in": designing citizen participation in water planning as research

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ABSTRACT

In United States water resources management, water quantity planning (supply, availability, and use) fall within the domain of individual states. Because water is a shared resource held in trust for the use of a state's citizenry, its management obliges the involvement of water users. Under the above regime, states have much discretion concerning how to accomplish this. In state water planning, a variety of activities are considered stakeholder engagement. Natural resource management agencies often treat public participation as a chore for attaining legitimacy whose resources might be better used for technical aspects of planning. This paper details the public participation design for the 2015 Montana State Water Plan's Yellowstone Basin scoping phase. It argues that design of participatory practices is the key variable for successful participation. Stakeholders are experts whose knowledge can be incorporated into planning to inform priorities, corroborate biophysical data, and supply insights for communicating science and policy to citizens across specific localities. We argue that stakeholder engagement in water resources planning should be treated as research for the purposes of gathering and organizing social and biophysical truths. Through participant data approaches, citizen comments as data can improve the informational basis of planning and relational aspects. Public buy-in (legitimation) is not the objective of stakeholder participation; however, it can be a by-product of good design which suits the context and effectively uses citizen input to improve decision making. Using experience from basin-scale citizen advisory committees, this essay offers recommendations for water planners to design productive public engagement practices.

"We have a month to do this and we are looking at a future of how long?"

—Basin Advisory Council Member

1. Introduction: public participation in US state water resources planning

Held in trust for public use, freshwater is managed by US states for a variety of purposes. Water is allocated as property for private enterprise (i.e., agricultural irrigation) and reserved for biological communities in the public domain (i.e., states' fisheries). Because it is shared but not always abundant, water engenders allies and rivals—locally, across vast distances, and across state and national lines. To minimize conflict and garner public support, states are increasingly involving citizens in decision making and planning processes (cf., Innes, 1998; Larson and Soto, 2008; Plummer, 2006; Smith, 2015).

Underlying any public participation requirement is the assumption that engaging citizens will result in improved management of water resources (Brown, 2011; Connell and Grafton, 2011; Wondolleck and Yaffee, 2000). Therefore, input from the fullest spectrum of water users is theoretically ideal. However, *everyone* is a water user—and thus a potential public participant. Water managers must decide from whom and by what means they should solicit inputs. The possibilities and approaches are

Acronyms: BAC, Basin Advisory Council; DNRC, Montana Department of Natural Resources and Conservation; MWSI, Montana Water Supply Initiative; PDA, Participant Data Approach; YBAC, Yellowstone Basin Advisory Council.

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numerous (Carr, 2015; Conca, 2006) and how to best implement public engagement in water resources planning is rarely certain (Bryson et al., 2013; Carr et al., 2012; Espeland, 1998; Stern and Dietz, 2008).

Public participation has been characterized along a variety of spectrums, each highlighting the nuances across differing forms of citizen engagement (Arnstein, 1969; Fung, 2006; IAP2, 2007). A noteworthy gradient is the distinction between treating public engagement as: (A) a procedural requirement—the checkbox approach; decide, announce, defend; placation—where communication is one-way from agency to public; (B) a means of gathering information used to improve managerial practices; and (C) a way to collaboratively engage citizens in designing and implementing decisions. The gradient reveals that the form and structure of engagement has the potential to define the degree to which it improves the quality of the decision making. It is useful, then, to consider the challenges faced by water managers when seeking to integrate stakeholders into planning.

For state-level water planning, administrative boundaries can complicate planning processes, especially when the intervals between coordinated efforts are prolonged. In situations where 10, 20, or even 30 years have passed since the last coordinated water planning effort took place, complications can arise due to administrative changes, retirements of experts, shifting priorities, waning public memories of droughts and floods, and the onset of an overall inertia. Budgetary constraints further define the quality and design of water planning, especially in terms of available data and design possibilities for public participation.

To address these challenges, some scholars stress that as predecisional communication between the agency responsible for the decision making and the public affected by the decision (Daniels and Walker, 2001) participation should result in power sharing (cf. Arnstein, 1969). Others emphasize that when citizen advisory groups meet regularly over an extended period of time, the members will become familiar with technical matters (Lemos et al., 2010), learn from one another (Pahl-Wostl and Hare, 2004), and improve decision making. Such advisory councils can represent the spectrum of water users, have the ability to add important insights about localized physical and biological dynamics, as well as reflect sensitivities to nuances in community values and norms (Vari, 1995).

However, there are disadvantages of citizen advisory councils. The first is logistical. It is time consuming for participants and organizers. Developing the logistics of meeting is difficult requiring high levels of organization. With budget constraints and time limits, these challenges are amplified. Secondly, the advantage of diverse representation poses challenges for communicating across differing levels of technical knowledge (Steiner, 2013). Group decision making about shared resources requires the development of a shared understanding of the social-ecological system (Hall et al., 2014). Developing knowledge capacities poses challenges. Having these discussions at a scale relevant for the decision authority is equally difficult and often plagued by data limitations. A third disadvantage is the varying degree of members' commitment to the process, including member fatigue. There are also few repercussions for posturing to protect special interests or general inactivity.

Further complicating the design of participation is the great diversity of experience and training among the agents charged with planning (cf. Moorhouse and Elliff, 2002). Many readily admit that backgrounds in engineering or biology are not necessarily adequate when dealing with diverse and divided publics. Moreover, in a majority of cases, agencies cannot legally share decision authority; thus, public participation—while mandated—does not relieve them of decisional burdens (Senecah, 2004). Managers and agencies must define their boundaries of operation and they should not be coy about communicating the role that public involvement is to play in decision making (Stern and Dietz, 2008).

Given the need to recruit the public into (mostly) advisory roles and given that most public natural resource agencies have a fragmented understanding of the interests, desires, and lives of the publics they serve (Gray, 1989; Lejano et al., 2007; Salzman and Thompson, 2014), it is easy to understand why public participation is an onerous duty that managers often pass off to external consultants whose primary tasks are to recruit participants, document engagement, and manage potential conflicts via expert facilitation techniques. While administrators and local officials can identify characteristics of effective public participation, “most, by their own admission, are either unwilling, incapable, or feel constrained” to design and engage in participatory practices (Senecah, 2004: 16). A consultant allows agencies to remain one step removed from the participants and their inputs. The participatory process design is often the purview of the consultant or facilitator; and the effectiveness of this role influences the perceived success of the process (Leach, 2006). As a result, public inputs are at risk of not being incorporated in meaningful ways.

We argue that stakeholder engagement in water resources planning should be re-conceptualized. Instead of viewing public participation as a mandated function that primarily operates to generate stakeholder “buy-in” and maintain a credible agency image (Stern et al., 2010), we argue that public engagement should be viewed as a research opportunity which *provides critical insider information* for consideration in planning decisions (Hall and Lazarus, 2015). In the same way as one would expect hydrologic data to be threaded into planning decisions, socio-cultural data too can be used to corroborate biophysical data, help inform priorities, and develop empirical approaches to communicating science especially within specific localities. Relevant data for the informational basis of planning can be gathered through a variety of Participant Data Approaches (PDAs).

When treated as data, public comments may be categorized and sorted with topical and geographic specificity for integration throughout planning (Hall et al., 2012a). Once compiled, these place-specific data can inform technical aspects of water resources planning as well as ground-truth strategies for communicating policy and decision making (Hall et al., 2012a, 2013). In this study, we illustrate how one Participant Data Approach (PDA) was implemented in the case of Montana's Yellowstone Basin Advisory Council for the Montana State Water Plan.

2. The 2015 Montana state water plan

The Montana State Constitution asserts, “All waters of the state are the property of the state for the use of its people” (Article IX, Sec 3.3). Water is thus, unambiguously, a public good appropriated for use by private citizens. As a remnant of 19th Century US policy to encourage western settlement (Getches, 1997), Montana statutes require that water be put to “beneficial use” and that the prior appropriations doctrine—often referred to as “first in time, first in right”—also applies. Put simply, the earlier an individual or entity puts water to (beneficial) use the greater their seniority (priority). In times of scarcity, then, junior rights holders are forced to forgo their share of water so that the share available to senior users is uncompromised.

As simple as that seems, conflicts arise during water shortages due to inadequate filing and documentation of water rights. One Montanan stated that when it comes to disagreements about water rights “*it can get like the old Wild West here fairly quickly*” (3/18/2013). A number of agendas have moved forward over the past decades to clarify water rights in Montana. For instance, due to