Presentation Title:

The Need for Systematic Identification of Stakeholders for Public Engagement with Environmental Research

Conference Theme:

Public participation, collaboration, and co-management

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Abstract:

Despite the increasing promotion of stakeholder engagement in science contributing to environmental decision making, the mechanisms for identifying which stakeholders should be included are rarely strategic or documented. When documented, many of these efforts use ad hoc and/or informal engagement methods to identify stakeholders, which limits the ability of the process to be replicated, and may result in processes that do not sufficiently engage all of the critical stakeholders. To overcome these limitations for an Environmental Protection Agency's Triple Value Simulation (3VS) model's participatory process, we utilized and thoroughly documented a mixed-methods approach for the comprehensive identification of critical stakeholders. The 3VS projects focus on developing systems-based frameworks that link economic, societal and environmental systems to explore the impacts of a set of policy options, such as improving water quality, and responses that might occur. The work presented here is from the 3VS project in Snohomish Basin, Washington, which was piloted to understand impacts associated with nitrogen use and cycling. These stakeholder identification methods are also being piloted in several other locations. For any environmental decision case, possible stakeholders include leaders in various communities who implement incentives and interventions; those who could be impacted by environmental, economic, or regulatory changes; and those who may contribute local ecological, social, and economic knowledge and data. This work specifically seeks to answer the following research questions: 1) Who are the possible stakeholder organizations needed for developing systems-based models in the Snohomish region? 2) How can these organizations be identified for engagement on various tasks that occur throughout the model development process? and,

3) Which of these organizations is critical for providing knowledge and understanding the complex social-ecological system of the Snohomish Basin?

This research is significant because the exclusion of any appropriate stakeholder can negatively impact the significance of the research and the long-term acceptance of policy outcomes. Diverse stakeholders are able to provide a deeper, more localized understanding of complex problems, specific information and access to data, and new ideas to the research process. In this work, we developed a mixed-methods approach to identify stakeholders that included: 1) a content analysis of 31 past regional projects to compile a list of related stakeholder organizations and agencies, 2) stakeholder interviews to outline key stakeholder types important for engagement, 3) the use of interest-influence matrices for categorizing stakeholders, and 4) social network analysis of the affiliation networks of the organizations to identify key organizations. The use of all four methods to understand the roles of organizations in the issue and watershed provides data that can be used to ensure the engagement of the appropriate stakeholders across the three systems, and provides an important set of possible stakeholder organizations for future engagement. In the content analysis of past efforts, 117 possible organizations were identified, and the stakeholder interviews revealed a diverse set of stakeholder types and perspectives. The interest-influence matrices and the affiliation network analysis revealed the need for multiple methods, as no single method was sufficient for identifying a comprehensive list of stakeholders.