## **Poster Title:**

Systematic Identification of Stakeholders for Engagement with Systems Modeling Efforts in the Snohomish Basin, Washington, USA.

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## Key Words:

stakeholder selection, systems dynamics models, Snohomish Basin, participatory science

## Abstract:

Even as stakeholder engagement in systems dynamic modeling efforts is increasingly promoted, the mechanisms for identifying which stakeholders should be included are rarely documented. Accordingly, 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. 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. Comprehensive engagement is important, as the exclusion of any appropriate stakeholder can negatively impact the significance of the research and the long-term acceptance of policy outcomes. In this work, we developed a list of stakeholder organizations for 32 past regional projects and used network analysis to identify key stakeholder organizations. Simultaneously, we interviewed stakeholders to outline key stakeholder typologies for engagement. Finally, these identified organizations and typologies were cross-compared with one another and mapped onto a conceptual model to ensure the engagement of the appropriate stakeholders for various modeling components. The use of mixed methods was important, as no single method was sufficient for identifying a comprehensive list of stakeholders within the Snohomish Basin.