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People and Conflicts in Dammed New England Landscapes: From a Stakeholder Assessment to a Science-Based Role-Play Simulation

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INTRODUCTION

- "Future of Dams" project objective: understand how science is used in decisions around current and future dam management in New England.

- Trend: Increased demand from stakeholders to participate in dam decision-making.

- Problem: Hard-bargaining approaches to negotiations over water resources often do not have the right or all relevant stakeholders represented.

- Need: 1) Strengthen consensus building approaches to dam negotiations and 2) data about social context within which decisions are made.

- Solutions: 1) Conduct a stakeholder assessment and 2) develop a science-based role-play negotiation simulation to strengthen consensus building.

STAKEHOLDER ASSESSMENTS

- Stakeholders are "those who have an interest in or are affected by a decision. Stakeholders are also those who have influence or power in a situation" (NOAA, 2007).

- Used to determine whether a consensus building process is appropriate, and if so, who should be involved and what issues should be addressed.

- Stakeholder assessments identify and prioritize:
  - Key issues, stakeholders, their interests and constraints;
  - Social and natural system attributes that might be affected by a decision.

- Key steps:
  - Gather data: Interviews, document analysis, public dam meetings
  - Analyze data
  - Recommended process design for collaboration role-play design
  - Share report

METHODS

- Identified stakeholders using 1) over 1,000 media news articles and 2) snowball sampling method (known stakeholders reference other stakeholders) (Figure 1)

- Conducted interviews with 46 stakeholders (Figures 3 and 4)

- Interviews focused on 4 key themes (Figure 2)

- Analyzed interviews using qualitative social science methods

- Ongoing: Qualitative coding and analysis using NVivo software

- Identified the most common stakeholder interests (Figure 5), issues (Figure 8), constraints

- Identified common features of dam decisions (What types of dams? (Figure 6) Who are the dam owners? Who is involved? Example river systems (Figure 7))

PRELIMINARY INSIGHTS FROM NH INTERVIEWS

<table>
<thead>
<tr>
<th>Stakeholder Type</th>
<th>Dam Owners</th>
<th>Community Groups or Local NGOs</th>
<th>Elected Officials (State or Fed)</th>
<th>Large/National NGO</th>
<th>State Government (known)</th>
<th>State Government (unknown)</th>
<th>Engineering consulting firm</th>
<th>Developers</th>
<th>State and Municipal Government</th>
<th>Private Sector &amp; Business</th>
<th>Environmental groups</th>
<th>NGOs</th>
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<td>22</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>0</td>
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</table>

What are the key issues?

- Regulatory process burdens, challenges, and constraints
- Funding for different kinds of dam management options
- Collaboration among diverse stakeholders
- Inadequate public participation and engagement process
- Contaminated sediments
- Complicated and lengthy permitting & administrative process
- Project prioritization: opportunistic vs. strategic

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