Explore, Synthesize, and Repeat:
Process Design for Effective Stakeholder Engagement in Water Management

Kelly Mott Lacroix, Ph.D.
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What is a Stakeholder?

- Person or group who has a "stake" in the outcome
- Different process design concerns for different stakeholders

Public

Expert
Why Engage?

- Impact or influence on decisions
- Social license
- Social learning

Fig. 1. A compound model of social learning drawn from literature

Muro and Jeffrey, 2012
Fig. 1. A compound model of social learning drawn from literature

Common understanding
- Mutual agreement
- Collective action

Stakeholder communication & interaction

Social learning

Process features that foster social learning
- Facilitation
- Opportunity for interaction
- Egalitarian atmosphere
- Repeated meetings
- Process control
- Open communication
- Diverse participation
- Unrestrained thinking
- Information exchange

Social learning leads to
- Relational change (e.g., trust & relationship building)
- Cognitive change (e.g., acquisition of factual knowledge & changed views)
- Technical skills (e.g., communication skills)

Muro and Jeffrey, 2012
What is Process Design?

- Steps in engagement process
- Many different variations with common themes
  - Set a goal
  - Understand stakeholders
  - Think about engagement aka Plan
  - Engage!
  - Implement
  - Evaluate
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Methods - General Project Process

- Projects were not designed to study effective process design. Rather framework is result of lessons learned and drawing from engagement literature.

1. Problem and Goal
2. Steering Committee
3. Engagement Activities
4. Action Items
How can we measure effectiveness?

• Inclusiveness - How good is the process at including a broad array of interests?

• Interactiveness - Does the process use multiple avenues for engagement and are stakeholders engaging repeatedly?

• Flexibility - Does the process adapt to changing conditions and stakeholder concerns?
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Connecting the Environment to Arizona Water Planning

- 3-year project
- Statewide scope
- Over 1,000 participants

- Roadmap for considering water for the environment in water planning and management
Gila River Participatory Watershed Assessment

- 2-year project
- Southwestern Arizona
- 15,000 sq. mile watershed
- Rural - Population 45,000
- 100 participants
- Baseline assessment of watershed resources
- Scenario planning for the future of the watershed
Gila River Participatory Watershed Assessment

- 2-year project
- Southeastern Arizona - ~15,000 sq. mile watershed
- Rural - Population 45,000
- 100 participants

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- Scenario planning for the future of the watershed
Town of Clarkdale Water Resources Management Program

- Town of 4,000 people
- Along Verde River in Central Arizona
- 115 participants

- Funding to create recommendations for water management program that protects the river and encourages economic vitality
Problem and Goal

Central Valley provides a water resources management program designed to meet the needs of residents, businesses and ensure environmental sustainability in order to be a robust and resilient community. This is to deliver benefits to agriculture and urban development and enhance the health of the Delta/Chinook salmon fishery.

Steering Committee

<table>
<thead>
<tr>
<th>Task/Activity</th>
<th>Stakeholder</th>
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<th>Stakeholder</th>
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</thead>
<tbody>
<tr>
<td>Task 1</td>
<td>Water Users</td>
<td>Task 2</td>
<td>Community</td>
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<tr>
<td>Task 3</td>
<td>Agriculture</td>
<td>Task 4</td>
<td>Environment</td>
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<td>Task 5</td>
<td>Industry</td>
<td>Task 6</td>
<td>Non-govt.</td>
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Engagement Activities
- Water 101, Water 102, and Public Open House
- Expert Meeting and Small Town Water Forum
- Science Coordination Workshop and Shared History Timeline Exercise
- Scenario Planning Workshop
- Presentations (37 over 1 year)
- Survey
- Roundtable - Assess Barriers
- Focus Group - Understand Perspectives

Action Items
- 1 action item
  - Long term: Take a regional approach to water management through regional cooperation with other jurisdictions.
- Short term: Develop a comprehensive water loss control program and identify water use of high-quality maintained water.
- 2 action items
  - Use common data to develop coordinated water and land management plans across jurisdictions for the watershed.
- Short term: Conduct a systematic survey to assess and rank public water use and natural areas.
Problem and Goal

Clarkdale provides a water resources management program that meets the needs of residents, businesses and our natural environment equitably in order to be a robust and resilient community.

How do we:
• provide reliable long-term water supplies for a resilient community,
• preserve the rural, agricultural life style, sustain and enhance the health of the Upper Gila Watershed
• in the face of uncertain physically and legally available water supplies.

Identify voluntary, stakeholder-driven options for addressing water needs of natural areas.
<table>
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<tr>
<th>EnWaP Project</th>
<th>Gila Project</th>
<th>Clarkdale Project</th>
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<tbody>
<tr>
<td>State agency</td>
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<tr>
<td>Municipal water utility</td>
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<td>Watershed partnership</td>
<td>Water attorney</td>
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<tr>
<td>Mining</td>
<td>Counties</td>
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<tr>
<td>Environmental Non-Governmental Organization</td>
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Engagement Activities

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Action Items

- 7 action items
- Long term: Take a regional approach to water management through formal cooperation with other jurisdictions.
- Short term: Develop a comprehensive water loss control program and identify optimal use of high quality reclaimed water.

- 1 action item
- Use scenarios to develop coordinated water and land management plans across jurisdictions for the watershed.

- 10 action items
- Long term: Set priorities for water for the environment through a localized process to promote cooperation and collaboration.
- Short term: Conduct a statewide survey to assess and rank public values for water and natural areas.
Town Project Diversity of Participants and Involvement Index

- # of Participants
- Avg. Index of Involvement


Legend:
- Participants
- Involvement Index
1. Problem Statement and Goal

Explore the Problem

Synthesize Understanding

Steering Committee
2. Activities and Additional Stakeholders

Explore the Problem
1. Synthesize Understanding
2. Explore the Problem
3. Develop Actions to Address Problem
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