Jun 9th, 1:50 PM - 2:10 PM

Developing regional goals for connectivity restoration

T. Hogrefe
University of Wisconsin - Madison

Follow this and additional works at: http://scholarworks.umass.edu/fishpassage_conference

Hogrefe, T., "Developing regional goals for connectivity restoration" (2014). International Conference on Engineering and Ecohydrology for Fish Passage. 39.
http://scholarworks.umass.edu/fishpassage_conference/2014/June9/39

This Event is brought to you for free and open access by the The Fish Passage Community at UMass Amherst at ScholarWorks@UMass Amherst. It has been accepted for inclusion in International Conference on Engineering and Ecohydrology for Fish Passage by an authorized administrator of ScholarWorks@UMass Amherst. For more information, please contact scholarworks@library.umass.edu.
Developing Regional Goals for Connectivity Restoration

Todd Hogrefe, National Fish & Wildlife Foundation

Mary Khoury, The Nature Conservancy
• Grant funding to restore habitat in the Great Lakes basin

• $37 million awarded since 2006 ($8.3 million in 2013)

• Focal issues
  ✓ **Aquatic connectivity**
  ✓ Stream and riparian habitat
  ✓ Wetlands
  ✓ Coastal habitat
SOGL Aquatic Connectivity Investments
2006–2013

- Projects funded: 39
- Project grant $: 10.3 million
- % total grant $: 27.7
- Barriers eliminated: 158
- Miles reconnected: 1,044

Photo: Grand Traverse Cons. District
Photo: Conservation Resource Alliance
Photo: Ducks Unlimited
Projected SOGL Connectivity Investments 2014–2024

- Barriers per $1 million: 15
- Miles per $1 million: 100

- Projected $20 million connectivity investment over 10 yrs

  ↓

- Eliminate 300 fish passage barriers
- Restore upstream fish access to 2,000 stream miles
Scope of Issue, Scale of Impact

- Potential fish barriers: 275,902
- Fully/partially impassable barriers: 170,000+
- Barriers to be removed with SOGL $: 300 (0.17%)
Importance of Investing Strategically

- SOGL to address a very small percentage of existing barriers
- But barrier removals can have disproportionately large impact on connectivity if prioritized strategically

Photo: Conservation Resource Alliance
Current SOGL Selection Criteria

- **Priorities**
  - ✓ Biodiversity/species assemblages
  - ✓ Water quality
  - ✓ Areas of Concern

- **Cost-effectiveness (e.g., miles/$)**

- **Grantee experience/past performance**

- **Social/ecological constraints**

- **Shovel-readiness**

Photo: USFWS

Monday, June 09, 2014
But Without Goals . . .

- Can’t assess contribution of individual projects toward a broader set of objectives

- Hard to determine total investment needed

- No context for tracking progress
  (We’ve helped reconnect 1,044 miles – Is that a lot?)

- Hard to define impact in meaningful terms
Value of Shared Goals

- Strategic focus
- Resource leverage
- Cumulative benefits
- Tracking of ecologically significant outcomes (beyond miles)
- Assessment of individual and collective impact
## A framework for goals

<table>
<thead>
<tr>
<th>Scale</th>
<th>Inputs</th>
<th>Interim Outputs</th>
<th>Interim Outcomes</th>
<th>Ultimate Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Example</em></td>
<td>$$</td>
<td>• Stream miles opened</td>
<td>% increase in fish population</td>
<td>Viable populations in representative river types</td>
</tr>
<tr>
<td>Great Lakes Basin</td>
<td></td>
<td>• Barriers removed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Great Lake basin</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-basins</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Relate population goal to conservation actions
Approach to goal setting in the Great Lakes

• You’re invited: Wednesday, June 11 3:15 – 5:15

Goal-Setting Workshop:
Establishing Regional Goals for Connectivity Restoration in the Great Lakes Based on Migratory Fish Populations

Matt Herbert, Mary Khoury, The Nature Conservancy

Wednesday, June 11, 2014
In search of the ideal . . .

**Ideal population goal**
- Tributary population size
- Regional population size
- % population increase (regional or tributary specific)

**Explore other approaches**
- Extrapolate from open water to tributaries
- Base goal on increased spawning habitat
Coming attraction . . .

Sub-regional webinars with regional experts to develop, review and refine proposed goals.
Tributary connectivity goals based on population goals

- Identify specific tributary reaches that could contribute to goals