Musconetcong River Watershed Restoration Plan – SVAP Data

Katie Giacalone
RCE Water Resources Program
April 29, 2008
Project Advisory Committee Meeting

SVAP Elements

- Channel Condition
- Hydrologic Alteration
- Riparian Zone
- Bank Stability
- Water Appearance
- Nutrient Enrichment
- Barriers to Fish Movement
- Instream Fish Cover
- Pools
- Invertebrate Habitat
- Canopy Cover
- Manure Presence
- Riffle Embeddedness
- Macroinvertebrates Observed

Musconetcong River SVAPs

- 166 visual assessments completed
- Good coverage throughout the watershed
- Chose a reference site for low and high gradient streams
Overall Averages

6.66 ≈ “Fair” Overall Average Score

Water Appearance

9.18 is the Excellent Average over all Water Appearance scores.
Manure Presence Scores

- 5 = evidence of livestock access to riparian zone
- 3 = occasional manure in stream or waste storage located in flood plain

Comments:
- Fence Cows Out of Stream

About our streams....
- Active channel widths ranged from 2-125 feet;
- Of 166 sites, the average overall score is 6.66, FAIR;
- POOLS had the lowest average score of 3.59;
- 130 of 166 sites had riffles (embeddedness average of 6.49);
- 14 pipes noted;
- 6 ditches documented, one with steady flow and an eroding bed from an old cultivated field;
- Comments focused on riparian zone improvements, removal of multiflora rose, restoring natives, and fencing cows from the stream.
Scores & Relationships

<table>
<thead>
<tr>
<th>Assessment Element</th>
<th>Average Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riparian Scores</td>
<td></td>
</tr>
<tr>
<td>Instream Fish Cover</td>
<td></td>
</tr>
<tr>
<td>Nutrient Enrichment</td>
<td></td>
</tr>
<tr>
<td>Channel Condition</td>
<td></td>
</tr>
<tr>
<td>Pools</td>
<td></td>
</tr>
<tr>
<td>Nutrient Enrichment</td>
<td></td>
</tr>
<tr>
<td>TSS</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Riparian Scores</th>
<th>Instream Fish Cover</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right Bank</td>
<td></td>
</tr>
<tr>
<td>Left Bank</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manure Presence</th>
<th>Nutrient Enrichment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Next Steps for SVAP Data

1. A representative photo has been chosen for each reach, and a photo log is being developed;
2. Overlay assessment elements to prioritize restoration projects and re-assessments;
3. Prioritize sites where restoration and fencing are needed;
4. Compare SVAP with water quality monitoring data.

If you have any questions, feel free to contact me at katieb@rutgers.edu or by phone. This presentation will also be available on our website, www.water.rutgers.edu.

THANK YOU!