Preservation of 80-Acre Conservation Area

Weston Conservation Commission
March 26, 2012
2010: Con Com hired Weston & Sampson Inc. to prepare assessment of options

Whatever option the town chooses must comply with today’s local, state, and federal regulations
Preservation of 80-Acre Conservation Area

Three options to consider:

1. Re-build dam with a 30’ spillway

2. Re-build dam with a 50’ spillway

3. At the Dec. 6th Meeting, residents asked the Commission to consider dam removal (brook preservation)
Option 1: 30-foot Spillway

30 Foot Long Spillway
Proposed Conceptual Design
Normal Pool Elevation: 142.3 ft. +/-
Dam Repair: 30 ft Spillway

Existing

Proposed
Damage Repair: 30 ft Spillway

Existing

Proposed
Dam Repair: 30 ft Spillway

Existing

Proposed
Option 1: 30-foot Spillway

Design and Permitting: $100,000
Construction Costs: $269,600
Downstream Bridge reconstruction: $10,000
Environmental Monitor: $16,000
20% Contingency: $56,000

Total Cost of Option 1 with Contingency: $451,600
Option 2: 50-foot Spillway

50 Foot Long Spillway
Proposed Conceptual Design
Normal Pool Elevation: 143.3 ft. +/-
Dam Repair: 50 ft Spillway

Existing

Proposed
Existing

Proposed

Dam Repair: 50 ft Spillway
## Option 2: 50-foot Spillway

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design and Permitting</td>
<td>$100,000</td>
</tr>
<tr>
<td>Construction Costs</td>
<td>$305,000</td>
</tr>
<tr>
<td>Downstream Bridge reconstruction</td>
<td>$10,000</td>
</tr>
<tr>
<td>Environmental Monitor</td>
<td>$16,000</td>
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<tr>
<td>20% Contingency</td>
<td>$64,000</td>
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</tbody>
</table>

**Total cost of Option 2 with Contingency:** $495,000
Option 3: Brook Preservation

Removal of portion of dam & either:

A. allow water to make its own course - *passive downstream release*

B. human-made creation of a stream channel - *onsite re-use of impounded sediments*
Dam Removal

Existing

Proposed
Option 3a: Preservation of Hobbs Brook (passive downstream release of impounded sediments)

Design and Permitting: $76,000
Restoration work $55,600
- Erosion control
- Embankment excavation
- Dam demolition
- Seeding/planting/stabilization

Downstream Bridge Reconstruction $10,000

Environmental Monitor: $18,000

20% Contingency: $11,100

Total cost of Option 3a with Contingency: $170,700
Option 3b: Preservation of Hobbs Brook
(Onsite reuse of impounded sediments)

Design and Permitting: $76,000
Restoration work $127,200
- Erosion control
- Embankment excavation
- Dam demolition
- Detail channel grading (includes removal of impounded sediment and reuse in upland)
- Seeding/planting/stabilization
Downstream Bridge re-construction $10,000
Environmental Monitor: $18,000
20% Contingency: $25,400

Total Cost of Option 3b with Contingency: $256,600
# 80-Acre Conservation Area Funding Sources

<table>
<thead>
<tr>
<th></th>
<th>30-foot spillway</th>
<th>50-foot spillway</th>
<th>Brook Preservation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Cost of Project</strong>*</td>
<td>$451,000</td>
<td>$495,000</td>
<td>$170,000 ([$256,000])</td>
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<tr>
<td>Funding Sources</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>FEMA funds</strong></td>
<td>-$80,000</td>
<td>-$80,000</td>
<td>-$72,000</td>
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<tr>
<td><strong>Private Donations</strong></td>
<td>-$100,000</td>
<td>-$100,000</td>
<td>0</td>
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<td><strong>CPA Funds</strong></td>
<td>-$271,000</td>
<td>-$315,000</td>
<td>-$98,700 (-$184,000)</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>Funding = Project cost</td>
<td>Funding = project cost</td>
<td>Funding = project cost</td>
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<tr>
<td>* Long-term Costs – maintenance</td>
<td>$3,000/year</td>
<td>$3,000/year</td>
<td>$500/year</td>
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</table>
Additional sediment testing scheduled for early April.

Commission will hold final public meeting on April 3rd to vote on:
  - Its preferred option (dam reconstruction or dam removal)
  - Whether to include the 30’ or 50’ spillway on warrant article

Although the Commission intends to vote on a preferred option, it will submit two warrant articles (dam reconstruction and dam removal) for consideration at May Town Meeting.

WFTA will host a special informational walk on 4/15 at 2pm.

The final decision on which option prevails will be decided at Town Meeting.
Dam Questions?