

## Baker Dam: Summary of Options

**Please Note: Costs are broad estimates to be used for comparing *RELATIVE* costs of various options. For a more detailed break-down of costs, see reports located at libraries.**

Option	Advantages	Disadvantages	Estimate of Probable Cost
Maintain Dam Indefinitely	<ul style="list-style-type: none"> <li>• Maintains existing smelt habitat</li> <li>• Maintains industrial landscape</li> </ul>	<ul style="list-style-type: none"> <li>• Fails to restore river health</li> <li>• Fails to restore wetlands</li> <li>• Prevents fish passage</li> <li>• Requires continual dam repair, maintenance and operation (30 year estimate)</li> <li>• Requires canoe portage</li> </ul>	<p><b>\$6.5 million</b></p> <p><i>\$3.6 million dam reconstruction and operation &amp; maintenance (O&amp;M) for 30 years</i></p> <p><i>\$2.9 million PCB dredging</i></p>
Full Dam Removal	<ul style="list-style-type: none"> <li>• Restores natural river processes (sediment transport, reduces eutrophication, eliminates thermal pollution source restores wetlands)</li> <li>• Opportunity for historic interpretation</li> <li>• Re-establishes free flowing river aesthetics</li> <li>• Eliminates dam maintenance and liability</li> <li>• Changes hydrology and reduces flooding</li> <li>• Provides passage for all aquatic species</li> <li>• Improves and expands smelt spawning habitat</li> <li>• Creates kayak and canoe passage</li> </ul>	<ul style="list-style-type: none"> <li>• Changes historical industrial landscape</li> <li>• Eliminates still water behind dam</li> </ul>	<p><b>\$3.6 million</b></p> <p><i>\$700K dam removal</i></p> <p><i>\$2.9 million PCB dredging</i></p>
Fish Ladder	<ul style="list-style-type: none"> <li>• Provides some fish passage</li> <li>• Maintains industrial landscape</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Significantly increases flooding by reducing 1/6 of flow capacity</i></li> <li>• Fails to restore river health</li> <li>• Fails to restore wetlands</li> <li>• Limited aquatic species passage</li> <li>• Requires continual fish ladder maintenance and operation</li> <li>• Requires continual dam maintenance and operation</li> <li>• Requires canoe portage</li> </ul>	<p><b>\$7.0 million</b></p> <p><i>\$400K ladder construction;</i></p> <p><i>\$3.7 million dam O&amp;M and reconstruction;</i></p> <p><i>\$2.9 million PCB dredging</i></p>
Reduce Dam Height and add a Rock Ramp	<ul style="list-style-type: none"> <li>• Provides some fish passage</li> <li>• Maintains partial impoundment pool</li> <li>• Improves canoe passage</li> </ul>	<ul style="list-style-type: none"> <li>• <i>May not be effective</i></li> <li>• Requires extensive fill of resource areas</li> <li>• Requires walls along river to stabilize rock ramp</li> <li>• Requires continual rock ramp repair, maintenance and operation</li> <li>• Fails to fully restore river health</li> <li>• Negatively impacts smelt habitat</li> <li>• Improves canoe passage</li> </ul>	<p><b>\$6.6 million</b></p> <p><i>\$700K dam removal</i></p> <p><i>\$3 million rock ramp/partial dam reconstruction</i></p> <p><i>\$2.9 million PCB dredging</i></p>

# Tileston & Hollingsworth Dam: Summary of Options

*Please Note: Costs are broad estimates to be used for comparing RELATIVE costs of various options.*

Option	Advantages	Disadvantages	Estimate of Probable Cost
Maintain Dam Indefinitely	<ul style="list-style-type: none"> <li>Maintains industrial landscape</li> </ul>	<ul style="list-style-type: none"> <li>Fails to restore river health</li> <li>Fails to restore wetlands</li> <li>Prevents fish passage</li> <li>Requires continual dam repair and operation (30 year estimate)</li> <li>Requires canoe portage</li> </ul>	<p><b>\$8 million</b></p> <p><i>\$3.6 million dam reconstruction and 30 yrs O&amp;M</i></p> <p><i>\$4 million PCB dredging</i></p>
Dam Removal	<ul style="list-style-type: none"> <li>Restores natural river processes (sediment transport, reduces eutrophication, eliminates thermal pollution source)</li> <li>Re-establishes free flowing river aesthetics</li> <li>Eliminates dam maintenance and liability</li> <li>Provides passage for all aquatic species</li> <li>Restores wetlands</li> <li>Creates recreational canoe and kayak passage</li> </ul>	<ul style="list-style-type: none"> <li>Changes industrial landscape</li> <li>Eliminates still water behind dam</li> </ul>	<p><b>\$5.7 million</b></p> <p><i>\$1.3 million dam removal</i></p> <p><i>\$4.4 million PCB dredging</i></p>
Fish Ladder	<ul style="list-style-type: none"> <li>Partially preserves impoundment</li> <li>Allows for limited fish passage</li> <li>Maintains industrial landscape</li> </ul>	<ul style="list-style-type: none"> <li>Fails to restore river health</li> <li>Fails to restore wetlands</li> <li><i>Allows limited aquatic life passage</i></li> <li><i>Limits spillway capacity</i></li> <li>Requires continual fish ladder O&amp;M</li> <li>Requires continual dam O&amp;M</li> <li>Difficult to regulate proper design flows given current gate design</li> <li>Requires canoe portage</li> </ul>	<p><b>\$8.4 million</b></p> <p><i>\$400K fish ladder</i></p> <p><i>\$3.6 million dam reconstruction and 30 yrs O&amp;M</i></p> <p><i>\$4.4 million PCB dredging</i></p>
Reduce Dam Height by 2/3; Add Rock Ramp for Fish Passage	<ul style="list-style-type: none"> <li>Partially preserves upstream pool</li> <li>Provides some fish passage</li> </ul>	<ul style="list-style-type: none"> <li>May not be effective</li> <li>Fails to restore river health</li> <li>Requires continual rock ramp repair and O&amp;M</li> <li>Requires extensive fill of resource areas</li> <li>Improves canoe passage</li> </ul>	<p><b>\$5.5 million plus O&amp;M costs</b></p> <p><i>\$1.1 million dam reconfiguration and ramp</i></p> <p><i>\$4.4 million PCB dredging</i></p>
Maintain Dam Indefinitely and Add Bypass Channel for Fish	<ul style="list-style-type: none"> <li>Partially preserves impoundment</li> <li>Limited passage for aquatic species</li> <li>Creates more fisheries habitat</li> <li>Minimizes migration of sediment</li> </ul>	<ul style="list-style-type: none"> <li><i>Fish may not find and utilize bypass channel</i></li> <li>Fails to restore river health</li> <li>Creates ownership and construction issues</li> <li>Requires continual dam repair, maintenance and operation</li> <li>Requires continual bypass maintenance</li> <li>Requires canoe portage</li> </ul>	<p><b>\$8.8 million</b></p> <p><i>\$800K bypass</i></p> <p><i>\$3.6M O&amp;M and, dam replacement;</i></p> <p><i>\$4.4M dredging</i></p>
River Relocation	<ul style="list-style-type: none"> <li>Creates "natural" free flowing river segment</li> <li>Allows for fish passage</li> <li>Allows for dam to remain</li> <li>Creates more fisheries habitat</li> <li>Minimizes sediment migration</li> </ul>	<ul style="list-style-type: none"> <li>Changes landscape</li> <li>Creates ownership and construction issues</li> <li>Requires massive fill removal along parkway</li> <li>Requires railroad / bridge alterations</li> <li>Would require dedication of greater land area and disturbance of open space</li> </ul>	<p><b>\$9.9 million incl. PCB capping (no PCB dredging req.)</b></p>

