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Saving Salisbury Pond

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Salisbury Pond Restoration

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Abstract
Salisbury Pond has been contaminated for over 40 years, it is time to take action.

Reasons to Restore the Pond
- Aesthetics
- Wildlife habitat
- Recreational
- Educational

“What we do to the land we do to the water” ~ Donna Williams

Goals
1. Advocate for restoring the pond
2. Gain backing for the pond
3. Locate illegal drains and stop contamination
4. Educate the citizens of Worcester
5. See Salisbury used once again for WPI’s Freshman/Sophomore rope pull

1) Excess nutrients (From runoff, increasing nitrogen and phosphorus)
2) Plants flourish (Pollutants allow for different species of plants to grow)
3) Oxygen is depleted (Dead plants are broken down by bacteria decomposers that use more oxygen within the pond)

1) Dredging the Pond (A needed first step towards cleaning the pond)
2) Aeration Fountain (adds dissolved oxygen)
3) Particle Separators (Fixed in the pipes and prevent most sediment from entering)

Comparison of Water Quality Standards and Salisbury Pond
Data from (EPA 2014), (DEP 2002) and (IEP 1991)

<table>
<thead>
<tr>
<th>Value Tested</th>
<th>Accepted Threshold</th>
<th>Level in Salisbury Pond</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Nitrogen (SW)</td>
<td>&lt; 0.50 mg L⁻¹</td>
<td>1991 → 0.52 mg L⁻¹</td>
</tr>
<tr>
<td>Total Phosphorus (SW)</td>
<td>&lt; 0.08 mg L⁻¹</td>
<td>1991 → 0.07 mg L⁻¹</td>
</tr>
<tr>
<td>Chlorophyll A (AB)</td>
<td>&lt; 0.18 mg L⁻¹</td>
<td>2002 → 0.44 mg L⁻¹</td>
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<tr>
<td>Secchi Depth (WC)</td>
<td>≥ 1.0 m</td>
<td>2014 → 14.7 mg L⁻¹</td>
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<tr>
<td></td>
<td></td>
<td>1991 → 0.7 m</td>
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<tr>
<td></td>
<td></td>
<td>2002 → 0.5 m</td>
</tr>
</tbody>
</table>

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