Salisbury Pond Restoration

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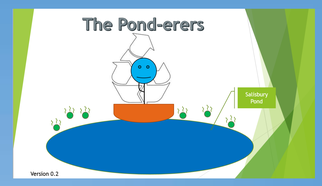
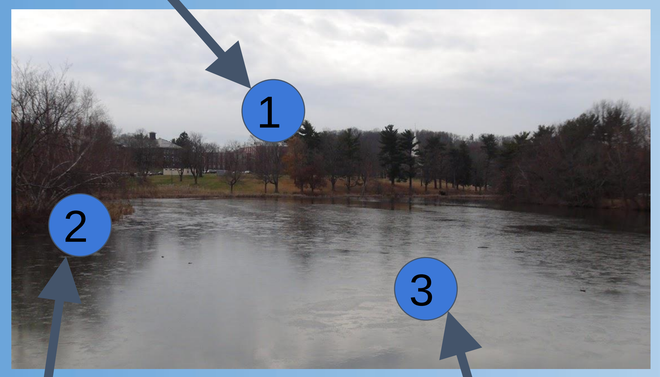


Abstract

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

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)

Reasons to Restore the Pond

- Aesthetics
- Wildlife habitat
- Recreational
- Educational

"What we do to the land we do to the water" ~ Donna Williams

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)

Value Tested	Accepted Threshold	Level in Salisbury Pond
Total Nitrogen (Surface Water)	< 0.50 $\frac{mg}{L}$	1991 → 0.52 $\frac{mg}{L}$
Total Phosphorus (Surface Water)	< 0.05 $\frac{mg}{L}$	1991 → 0.07 $\frac{mg}{L}$ 2002 → 0.44 $\frac{mg}{L}$
Chlorophyll A (Algal Biomass)	< 0.15 $\frac{\mu g}{L}$	2014 → 14.7 $\frac{mg}{L}$
Secchi Depth (Water Clarity)	≥ 1.0 m (Clear)	1991 → 0.7 m 2002 → 0.5 m

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

Our Facebook page promoting restoration

References

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Freed, L. (2014). Get 'sedimental' for Salisbury. *Telegram & Gazette*, pp. A.10.