

Deteriorating Infrastructure and Park Land Opportunities – The Echo Lake Dam Project



Speakers



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City of Burlington



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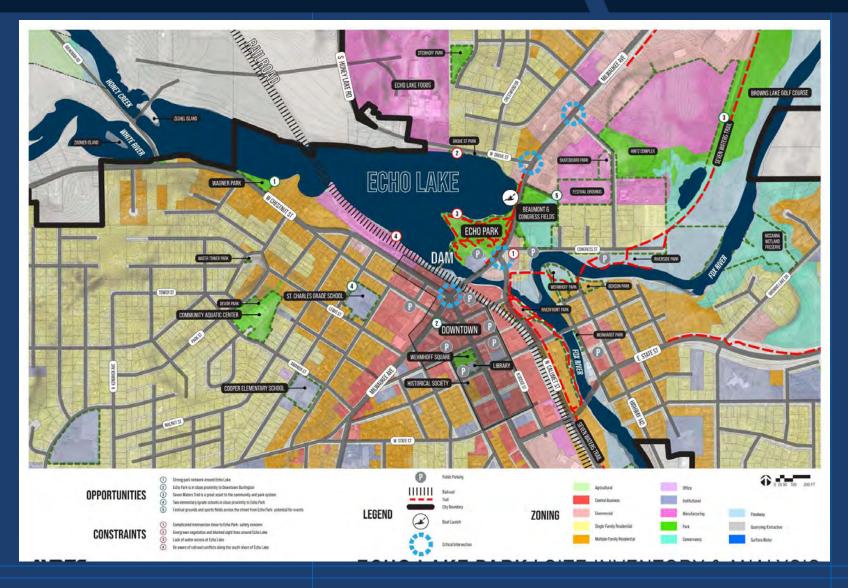
Amanda Arnold, AICP Ayres Associates

Echo Lake Dam Overview

2015 – Determined that the dam did not meet required standards

Options were removal or modification

City opted to explore design options and put the issue to an advisory referendum





Complex Decision Making

Echo Lake Dam Removal Cost

Total Cost	\$8,700,000.00
Less: WDNR Municipal Dam Grant	\$1,000,000.00
Total Local Taxpayer Cost	\$7,700,000.00
Tax Rate for Debt (per \$1,000 assessed)	\$0.5046
Annual Cost for Average Home (\$236,000)	\$119.09

Tax Analysis for Homeowners

Assessed Value	Tax Per Year/Household
\$100,000 of property value	\$50.46
\$200,000 of property value	\$100.92
\$236,000 of property value	\$119.09
\$300,000 of property value	\$151.38

Echo Lake Dam Modification Cost

Total Cost	\$9,100,00.00	
Less: WDNR Municipal Dam Grant	\$1,000,000.00	
Total Local Taxpayer Cost	\$8,100,00.00	
Tax Rate for Debt (per \$1,000 assessed)	\$0.5309	
Annual Cost for Average Home (\$236,000)	\$125.29	

Tax Analysis for Homeowners

Tax Per Year/Household
\$53.09
\$106.18
\$125.29
\$159.27



Complex Decision Making - Dam Removal

- Remove the dam
- Reshape the path of the river
- Establish native habitat and restore the former lake area
- Features:
 - Approx. 2 miles of new trails
 - Park lighting improvements
 - ADA accessible canoe/kayak launch
- Project timeline
 - Construction and earthwork: est. 2 years
 - Vegetation establishment: est. 3-5 years





Complex Decision Making – Dam Modification

- Modify the existing dam gates and add berm
- Dredge the lake/Shoreline restoration
- Features:
 - Overlook on top of the dam gates
 - Trail improvements
 - Park lighting improvements
 - Flexible performance area
 - ADA accessible canoe/kayak launch
 - Floating fountain
- Project timeline
 - Dam and park construction: est. 1-2 years
 - Dredging and shoreline work: est. 1-2 years





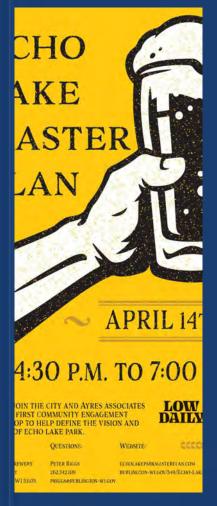
Complex Decision Making – Issues

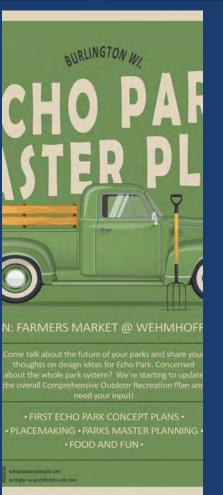
- Health of Echo Lake
- Property rights to lakefront
- Role of Echo Lake Park with other parks
- Cost
- Opportunities
- Community identity

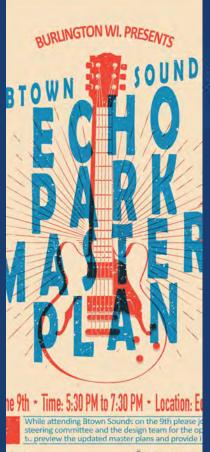




Community Engagement for Informed Choices







Online Survey
Events
Steering Committee
Community Information Meetings





Creative Scenario Planning for Sustainable Solutions









Ripple Effects of Aging Infrastructure

- Hydrological study. Provided understanding about the function of the current dam and modeled anticipated impacts of dam removal or dam modification.
- Lake bed survey and sediment sampling. Provided understanding about the characteristics of the sediment in the lake. This helped inform the design for the path of the river in the dam removal option and dredging project estimates.
- Community input provided vision and desired park program.
- Common Council reviewed the project concepts and adopted a preferred dam removal project concept and a preferred dam modification concept.
- Aging dam will result in major investments in Echo Lake, downtown, and surround areas



Crafting a Vision: The New Park Master Plan

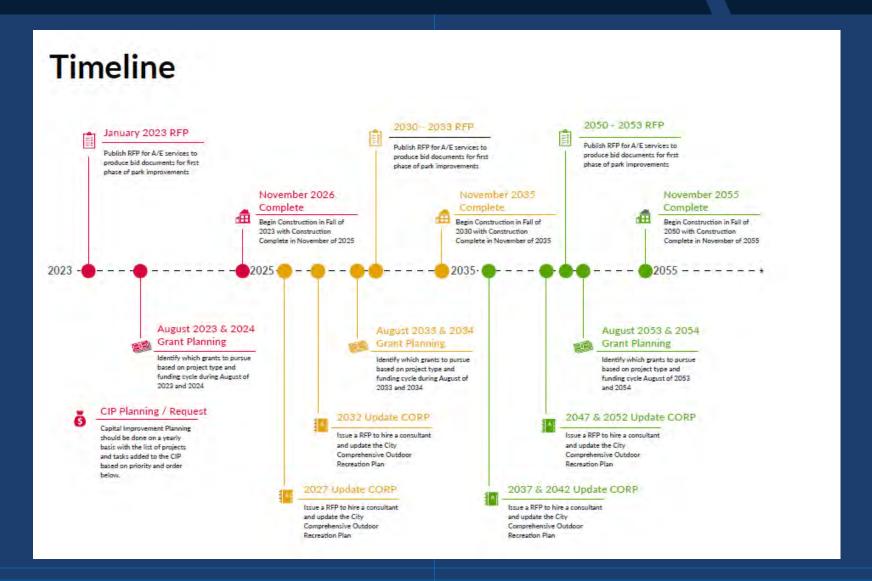








Crafting a Vision: The New Park Master Plan





Lessons Learned



