overview – Winnetka Pond (East) dredging project
goals & objectives – Winnetka Pond dredging project

Reduce sediment loading to North Branch of Bassett Creek & improve downstream water quality by providing additional permanent pool storage in the pond.

Preserve natural beauty along North Branch of Bassett Creek and contribute to natural habitat quality & species diversification by improving the native vegetated buffer around Winnetka Pond.

Maintain flood control functions of Winnetka Pond
Winnetka Pond dredging project components

Add-On 1: Create Native Vegetation Buffer
Benefits
- Filter Runoff (remove sediment and pollution such as phosphorus and bacteria)
- Create habitat
- Create source of food for pollinators
- Goose deterrence

Add-On 2: Goose Management
Benefits
- Reduce pollutant loading (phosphorus and bacteria)
- Improve aesthetics

Alternative 3: Deepen Entire Pond to 6.0 Feet
Benefits
- Further improve water quality
- Provide flood control benefits by increasing sediment storage
project impacts

tree removals: impacts to bats

reduce total phosphorus (TP), total suspended solids (TSS) & bacteria loadings

preserve flood storage

permits required/ potentially required: MDNR public waters work permit, MN Wetland Conservation Act approval, US Army Corps of Engineers’ Clean Water Act Section 404 permit & Section 401 certification (may involve MPCA), MPCA construction stormwater permit
stakeholder input

technical stakeholder meeting: Jan 17, 2017 – US Army Corps of Engineers, MDNR, MPCA, City of Crystal, BCWMC administrator, Commissioner Mueller

public stakeholder meeting: Feb 16, 2017

Crystal city council work session: Apr 13, 2017

BCWMC stakeholder comments – administrator, Commissioner Mueller, Crystal staff
Summary – construction costs for selected Winnetka Pond dredging project

<table>
<thead>
<tr>
<th>Recommended Alternative</th>
<th>Construction Cost Estimate</th>
<th>Annualized Cost</th>
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<tbody>
<tr>
<td>Alternative 3: deepen to 6.0 ft</td>
<td>$888,000</td>
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<td>Add-on 1: buffer</td>
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<td>Add-on 2: goose management</td>
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<td><strong>Total</strong></td>
<td><strong>$913,000</strong></td>
<td><strong>$57,100</strong></td>
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Summary – selected Winnetka Pond project

Water quality benefits

- total phosphorus loading reduction: 7.1 lbs/yr (P8 model) or 51.7 lbs/yr (professional judgment)
- total suspended solids loading reduction: 1,823 lbs/yr (P8 model)
- bacteria loading reduction

Cost of pollutant removal

- 30-year annualized cost based on professional judgement loading reduction
- annual cost per pound total phosphorus reduction: $960/lb