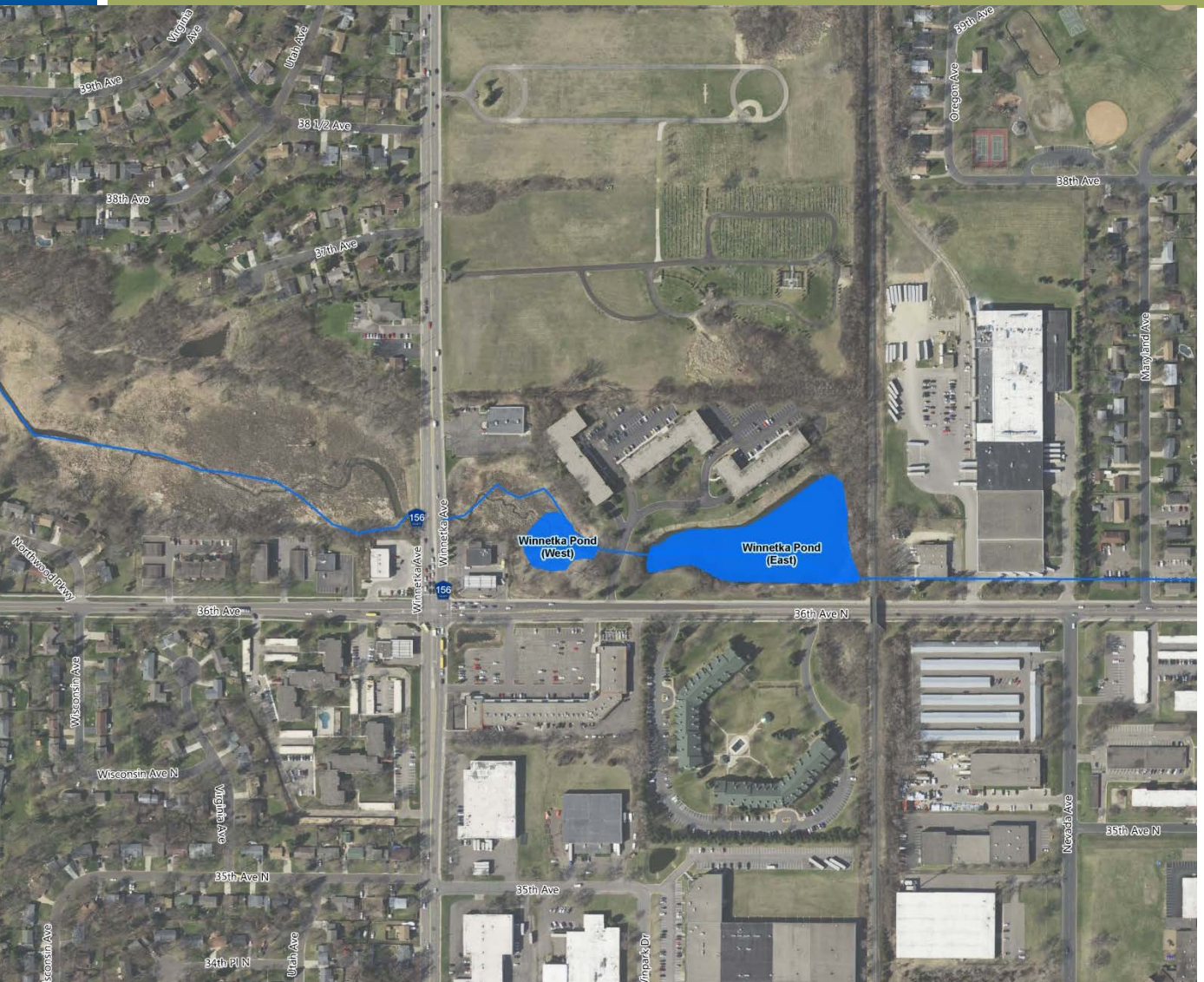
overview – Winnetka Pond (East) dredging project



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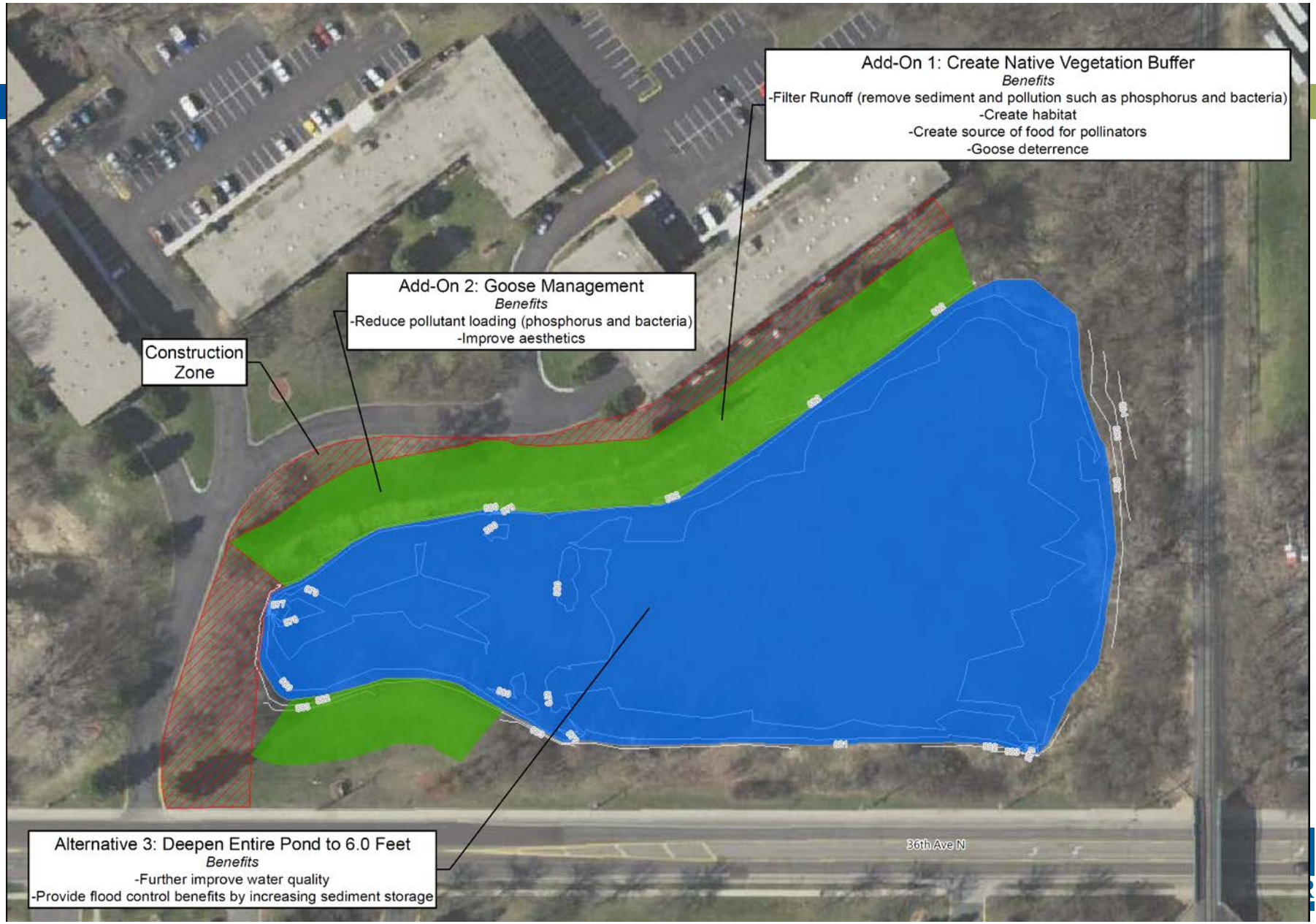
goals & objectives –Winnetka Pond dredging project

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



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

Recommended Alternative	Construction Cost Estimate	Annualized Cost
Alternative 3: deepen to 6.0 ft	$888,000	$49,400
Add-on 1: buffer	$17,000	$2,700
Add-on 2: goose management	$8,000	$5,000
Total	**$913,000**	**$57,100**

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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

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