



WEST AND SOUTHWEST WINNETKA STORMWATER MANAGEMENT STUDY

Early Action Study • Council Study Session • October 2016

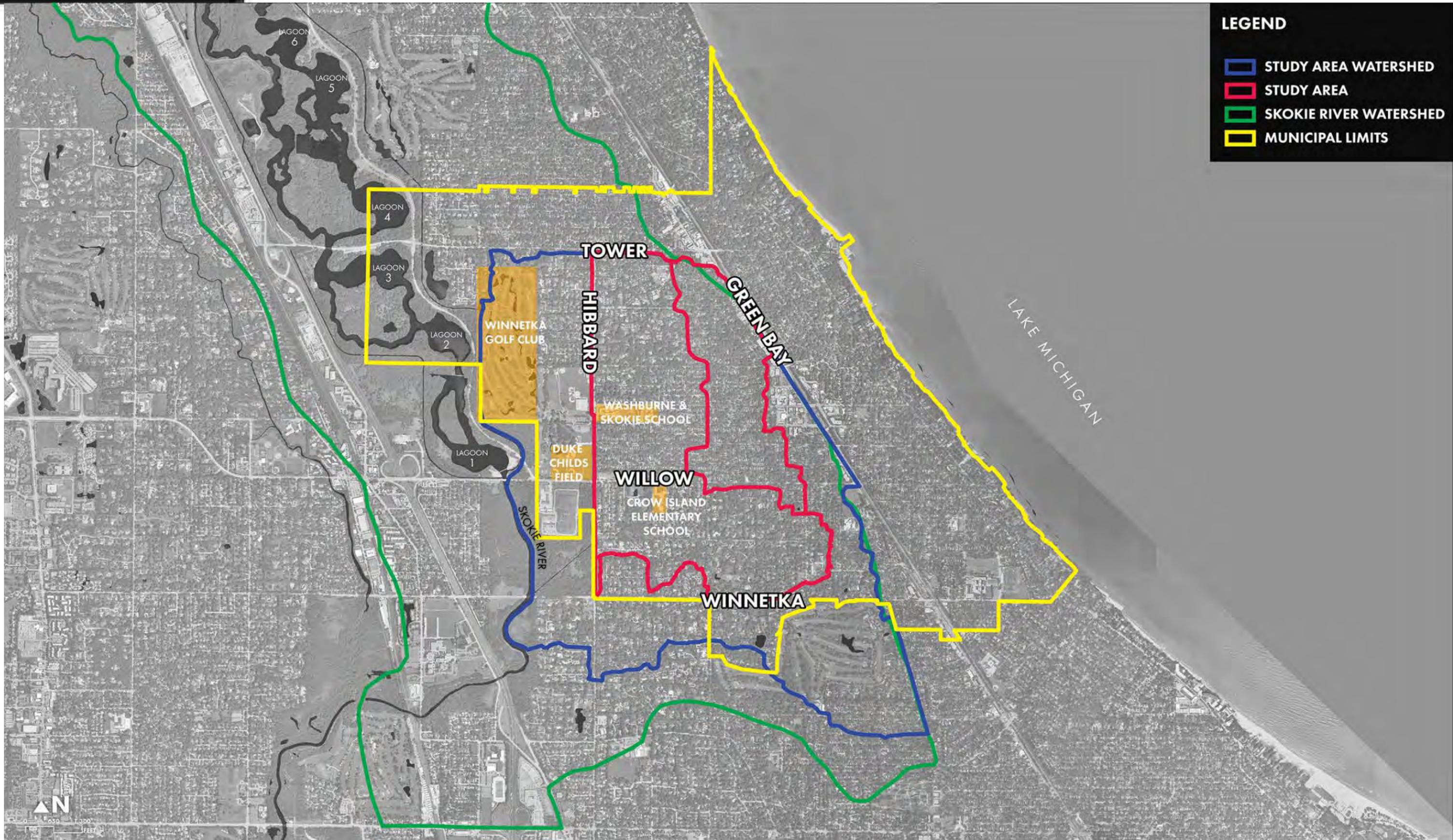
THE VILLAGE OF
WINNETKA
SINCE 1869

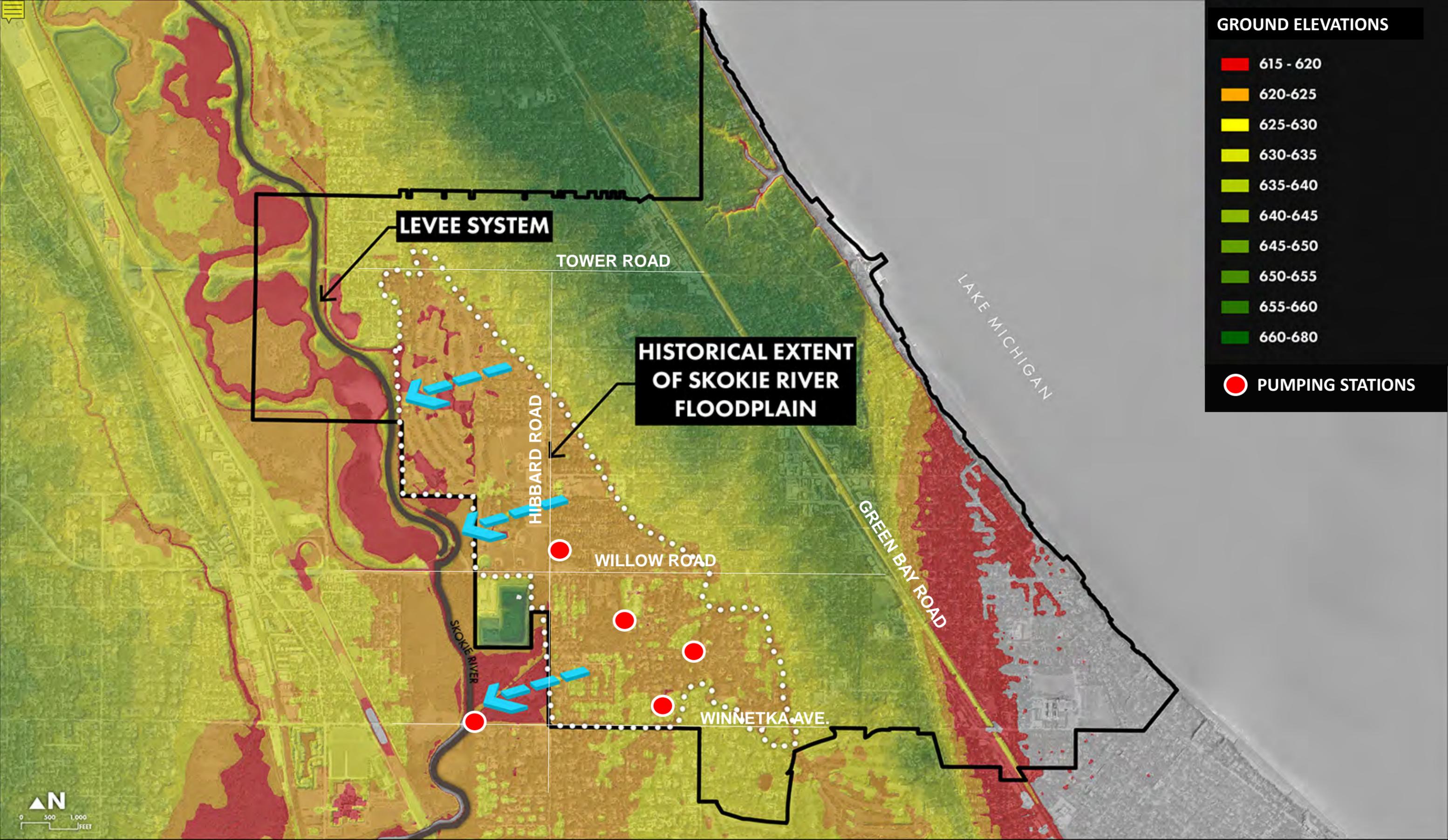
Possible Alternate Phasing

Possible Alternate Phasing: 2017-2021

Phase 1	Approximate Timing
<ul style="list-style-type: none"> • Forest Preserve Coordination/Approval • Duke Childs Field – Coordination & Engineering • South of Willow conveyance projects – Coordination & Planning • Crow Island Park – Community Engagement & Planning • Distributed Green Infrastructure • Mitigation Zones – Engineering and implementation 	Calendar 2017 Timing contingent on Forest Preserve approval
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Study Area Boundary





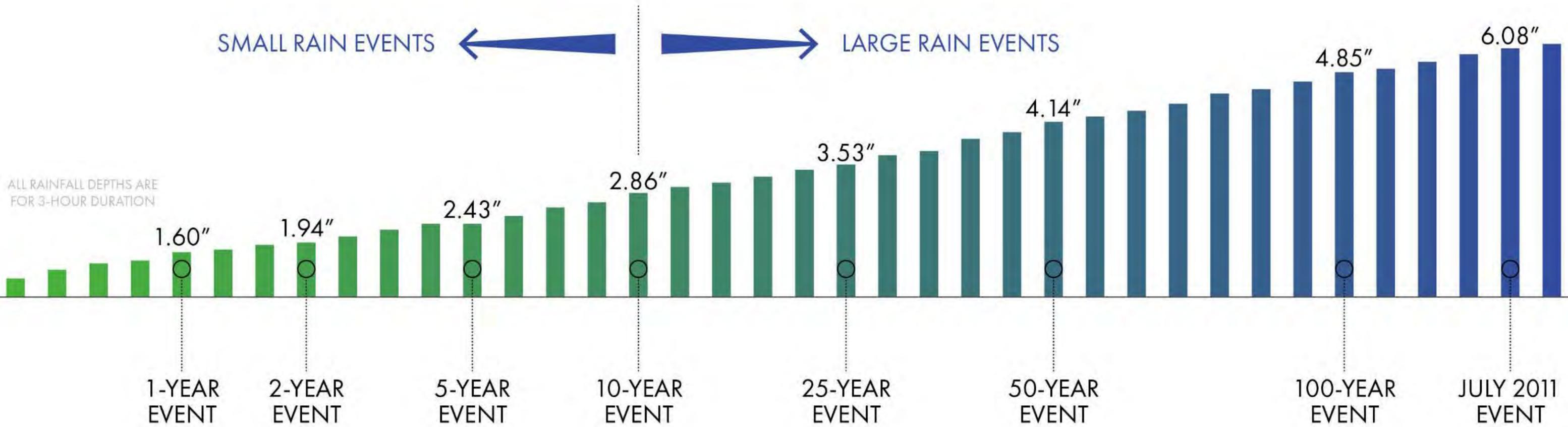
GROUND ELEVATIONS

- 615 - 620
- 620-625
- 625-630
- 630-635
- 635-640
- 640-645
- 645-650
- 650-655
- 655-660
- 660-680

PUMPING STATIONS



Stormwater Management Opportunities

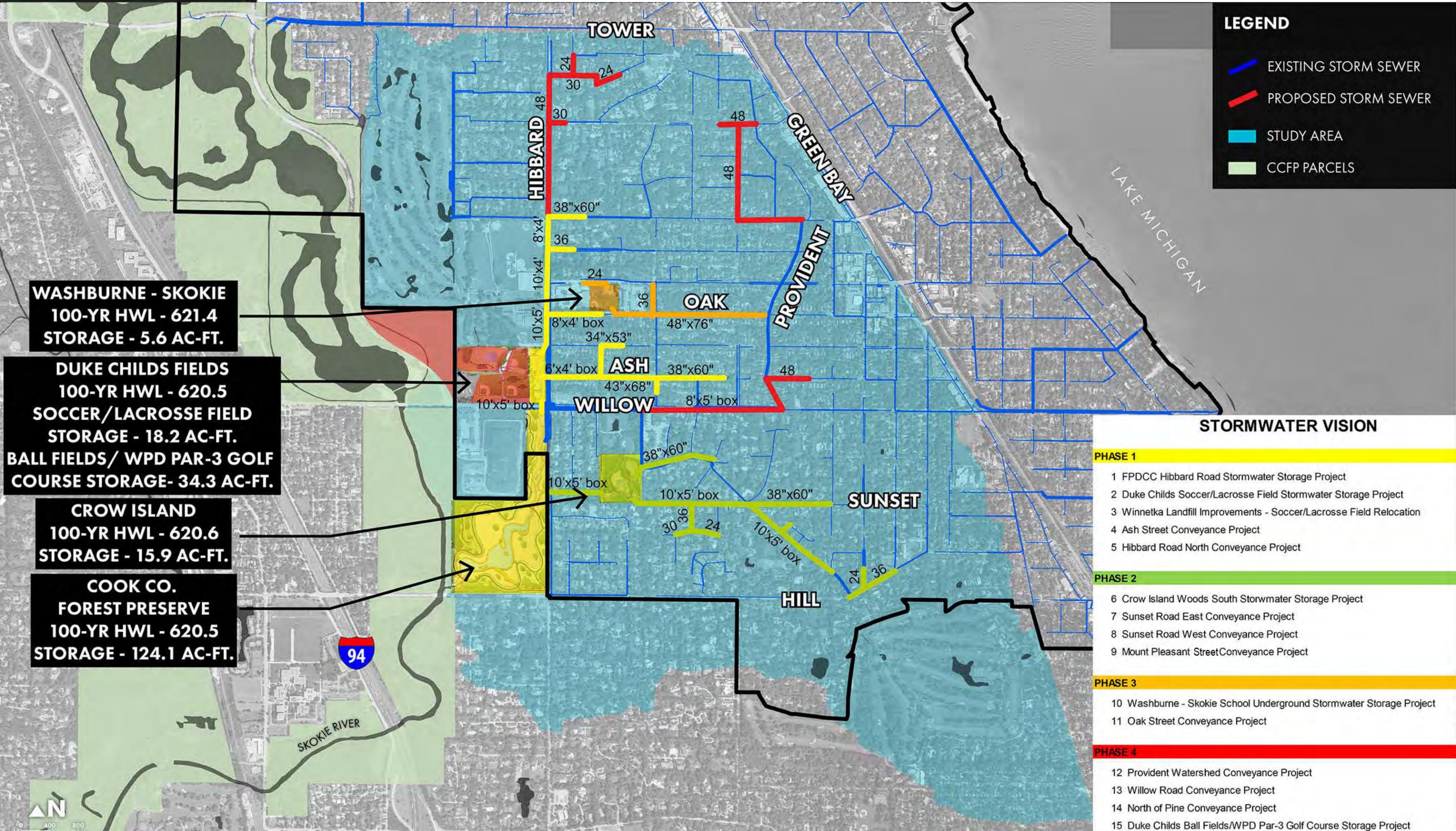


HOMEOWNER-LEVEL
INFRASTRUCTURE

NEIGHBORHOOD-LEVEL
INFRASTRUCTURE

WATERSHED-LEVEL
INFRASTRUCTURE

Stormwater Vision



LEGEND

- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- STUDY AREA
- CCFP PARCELS

WASHBURNE - SKOKIE
100-YR HWL - 621.4
STORAGE - 5.6 AC-FT.

DUKE CHILDS FIELDS
100-YR HWL - 620.5
SOCCER/LACROSSE FIELD
STORAGE - 18.2 AC-FT.
BALL FIELDS/ WPD PAR-3 GOLF
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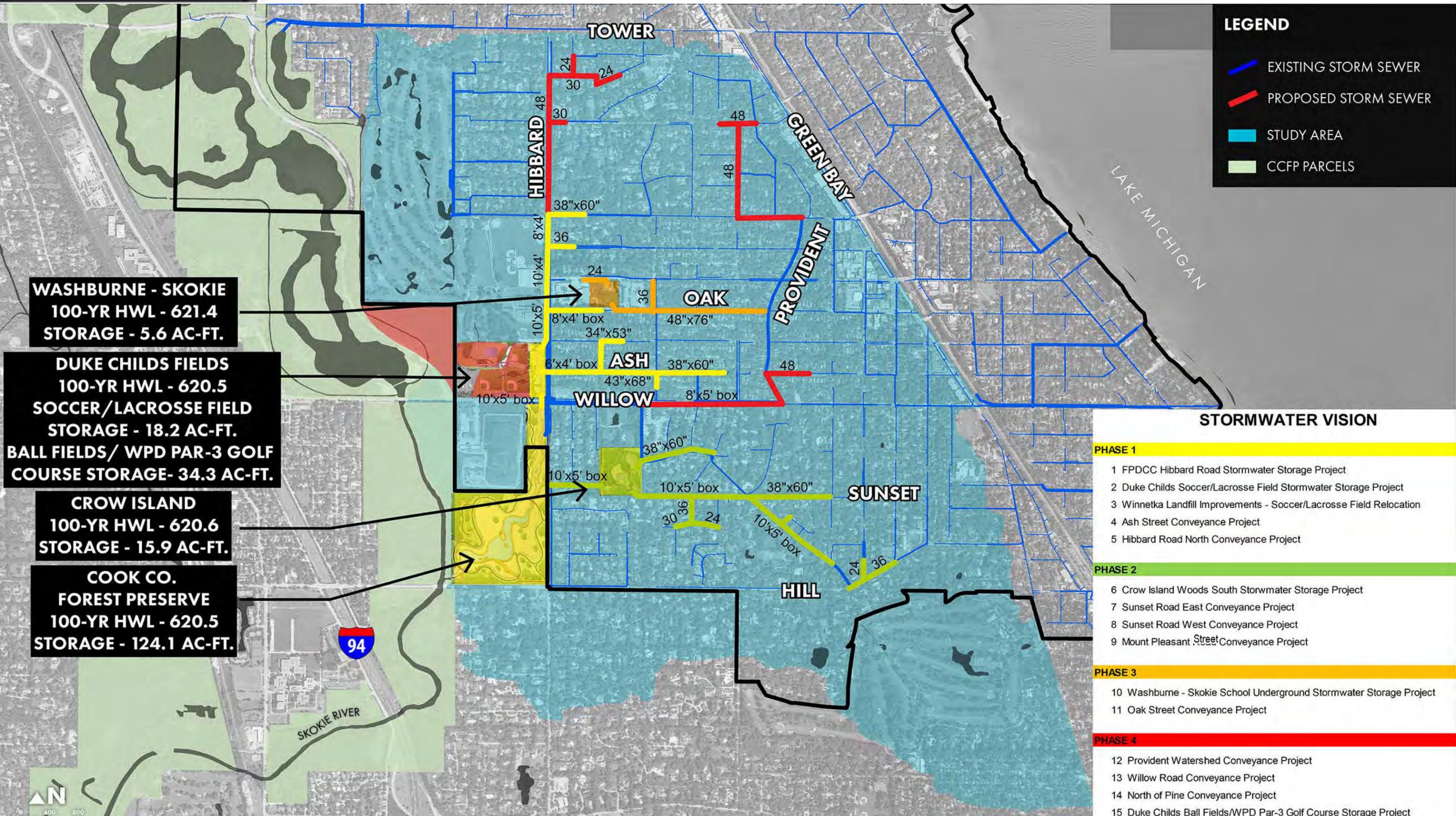
STORMWATER VISION

- PHASE 1**
- 1 FPDCC Hibbard Road Stormwater Storage Project
 - 2 Duke Childs Soccer/Lacrosse Field Stormwater Storage Project
 - 3 Winnetka Landfill Improvements - Soccer/Lacrosse Field Relocation
 - 4 Ash Street Conveyance Project
 - 5 Hibbard Road North Conveyance Project
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- 10 Washburne - Skokie School Underground Stormwater Storage Project
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 - 13 Willow Road Conveyance Project
 - 14 North of Pine Conveyance Project
 - 15 Duke Childs Ball Fields/WPD Par-3 Golf Course Storage Project

Identifying Potential Early Action Projects

- Projects for implementation while the larger projects are pursued.
 - Projects without significant physical constraints or required approvals
 - Projects providing a discernable stormwater quantity and quality benefits
 - Projects determined to be cost-effective now
 - Projects that won't pose a negative impact to the Stormwater Vision

Identifying Potential Early Action Projects



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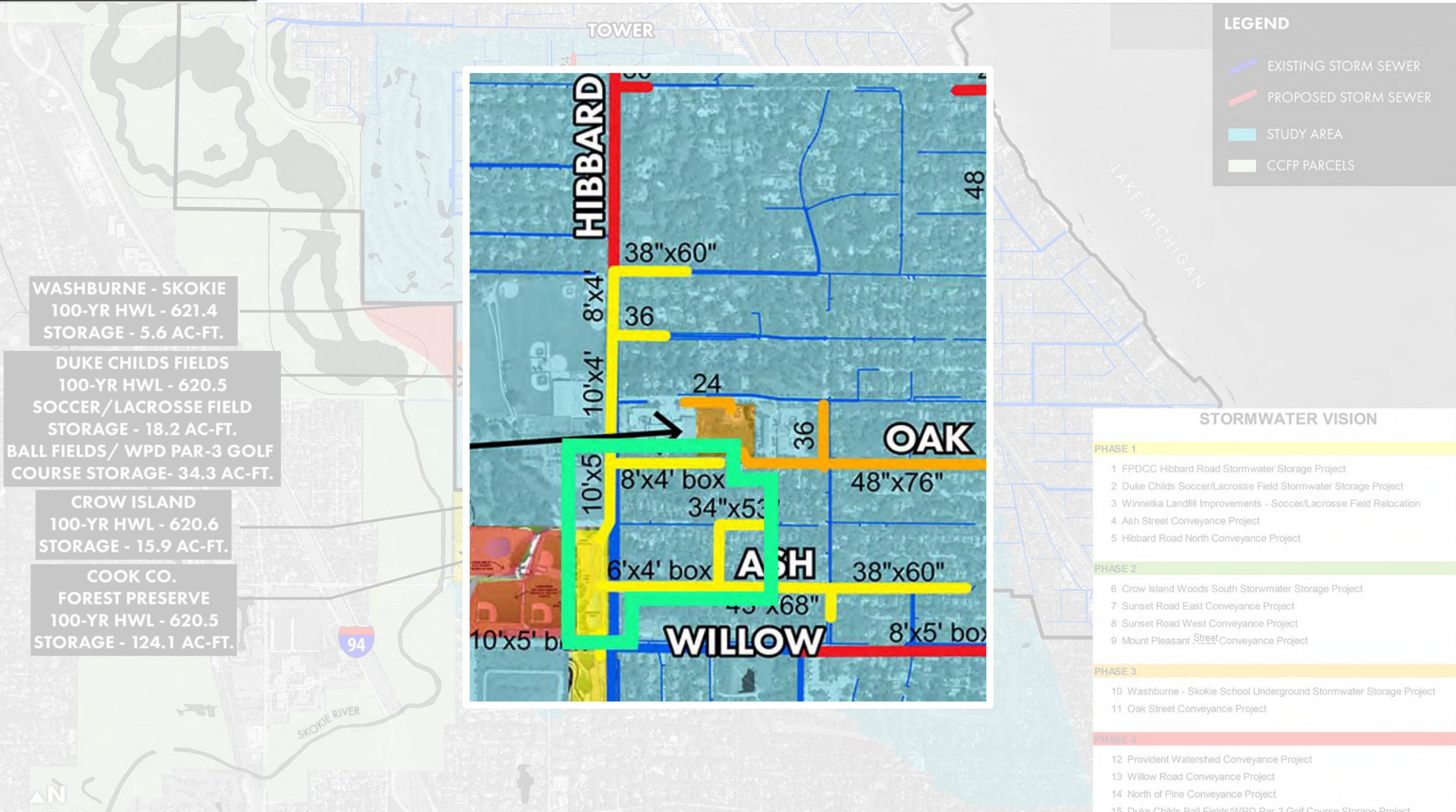
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North Willow Watershed Early Action Projects



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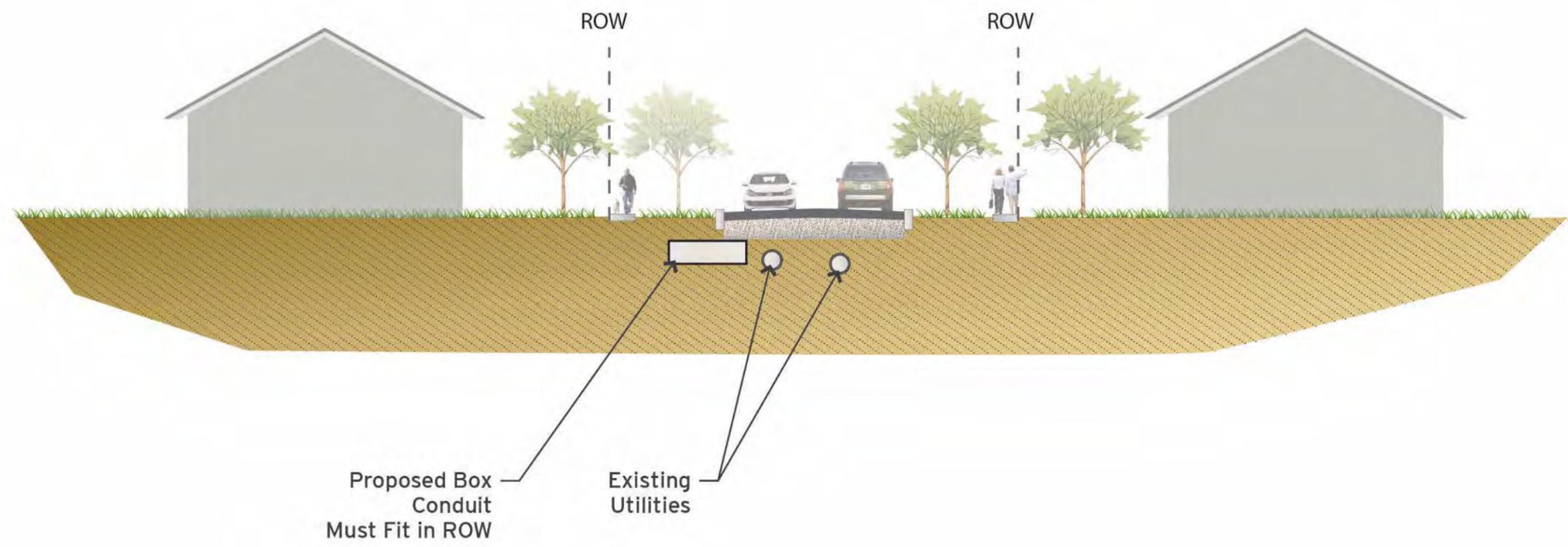
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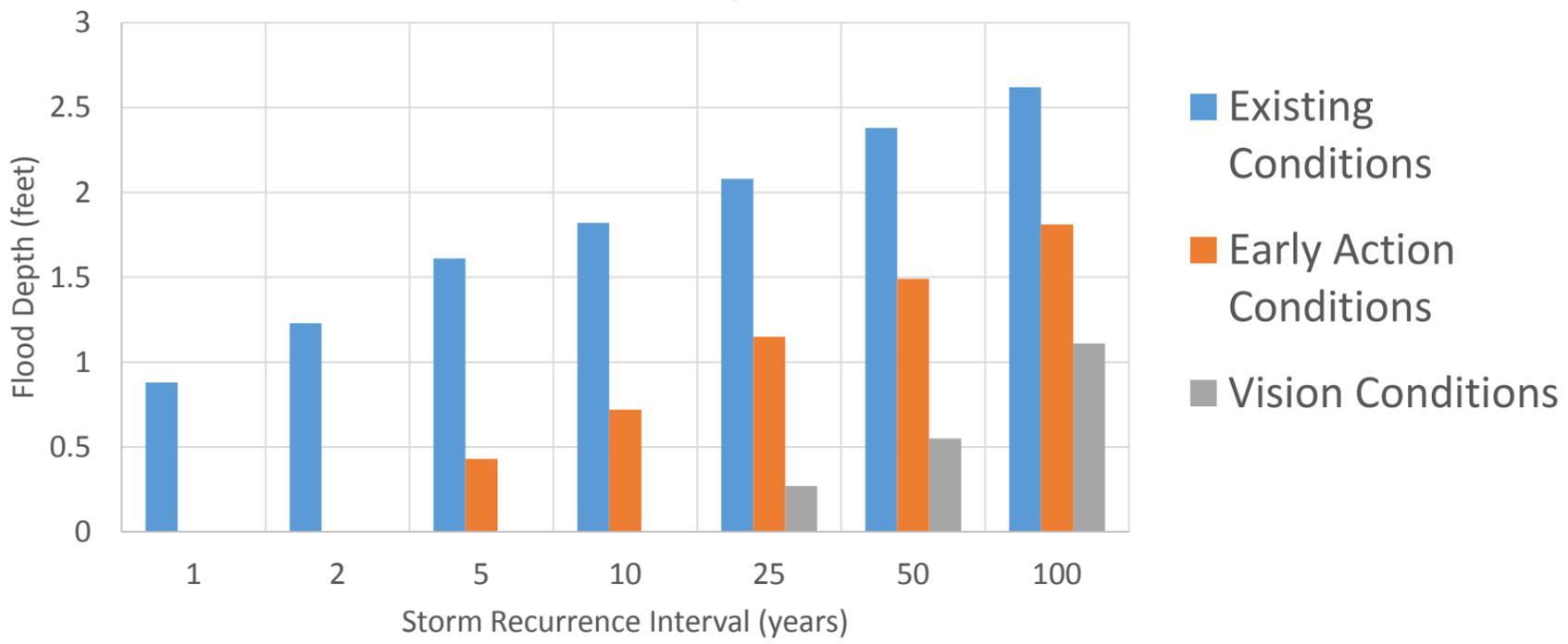
North Willow Watershed Early Action Conveyance



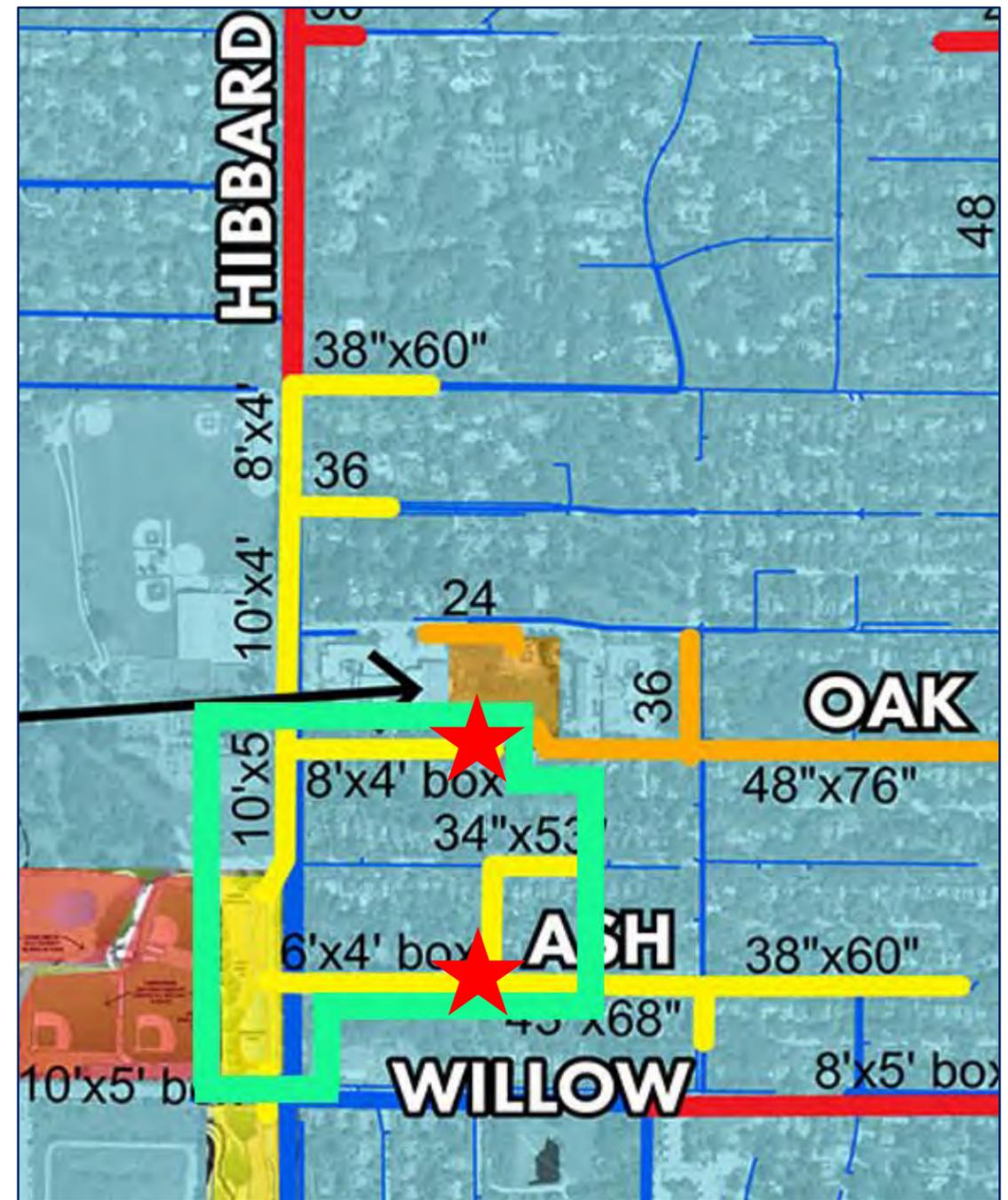
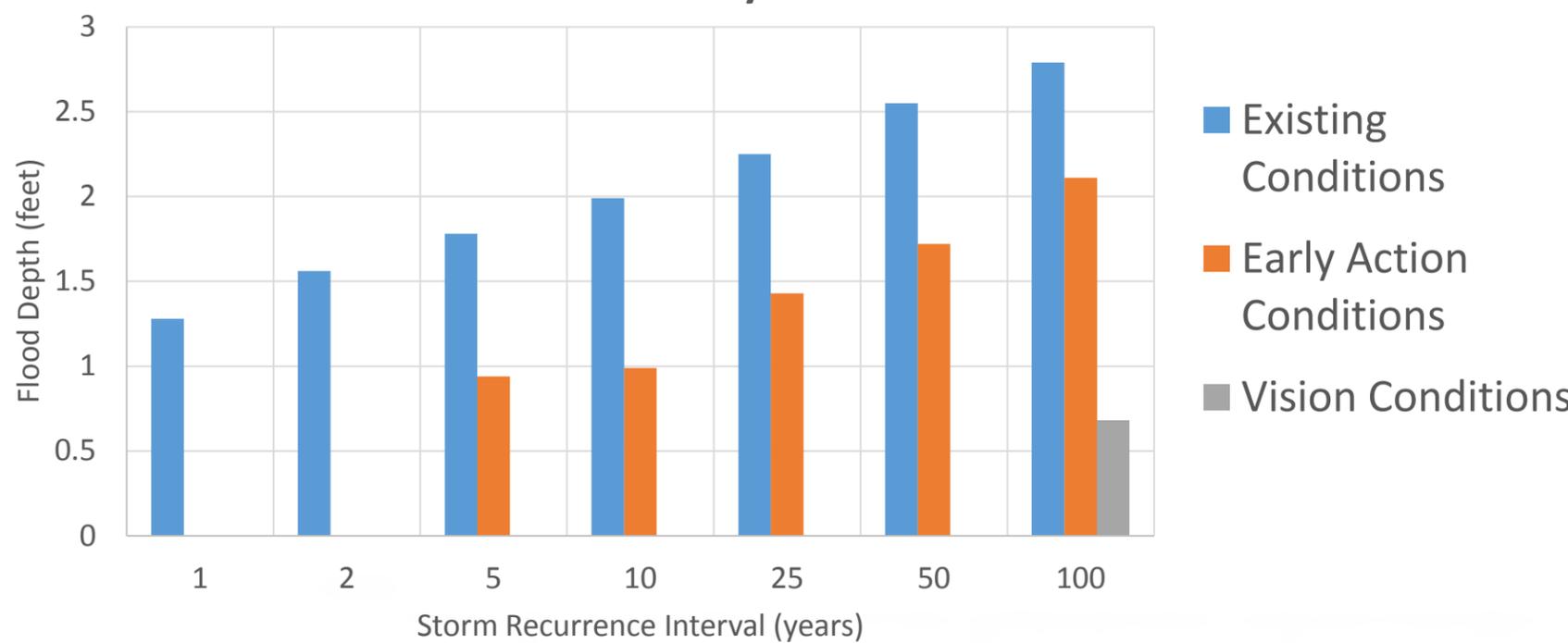
PROPOSED STORMWATER CONVEYANCE -
ALONG STREETS

North Willow Watershed Early Action Modeling

Oak Street and Berkley Avenue Intersection



Ash Street and Berkley Avenue Intersection

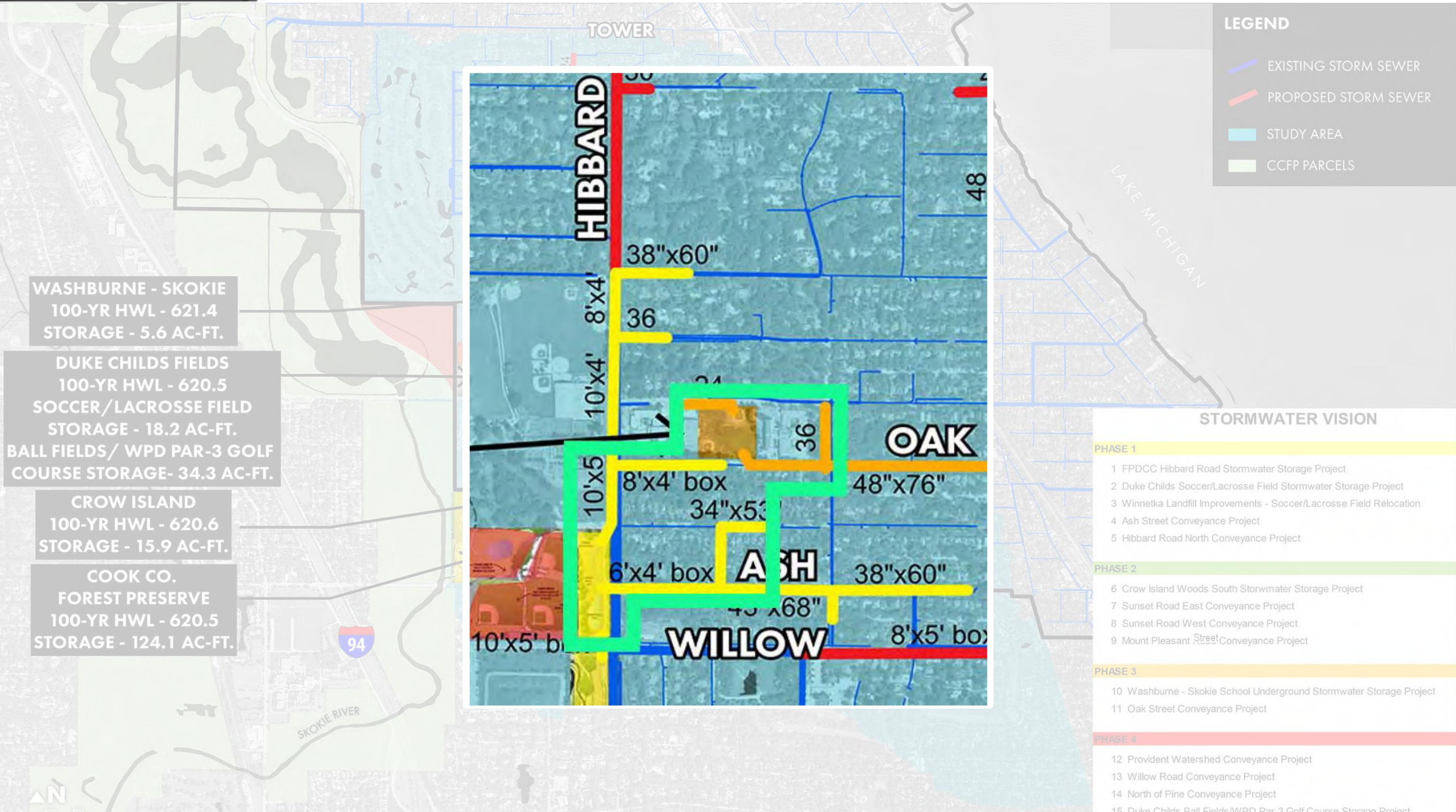


North Willow Watershed Early Action Effectiveness



10-Year Event – Full Stormwater Vision Conditions

North Willow Watershed Early Action Projects Expanded



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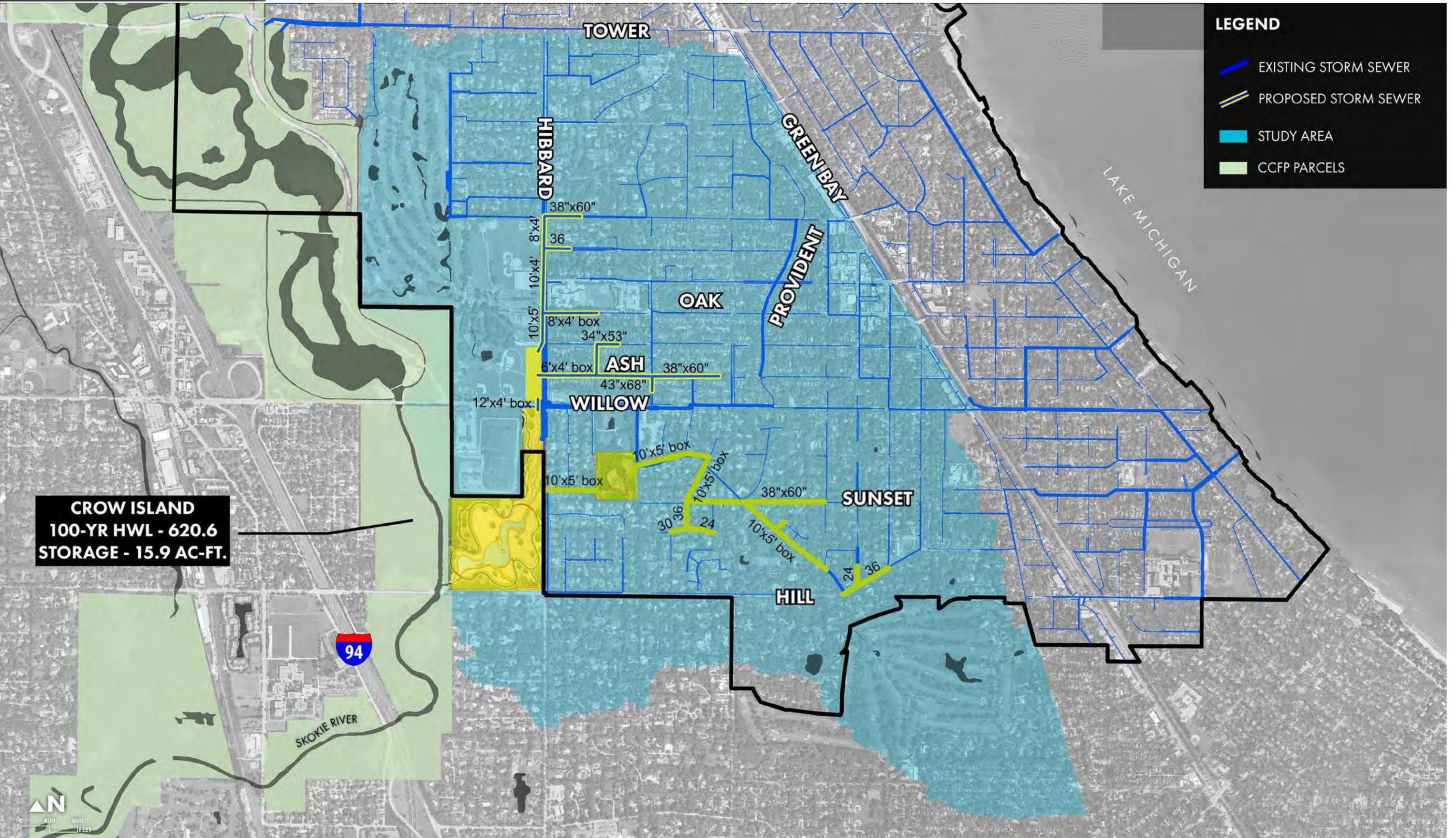
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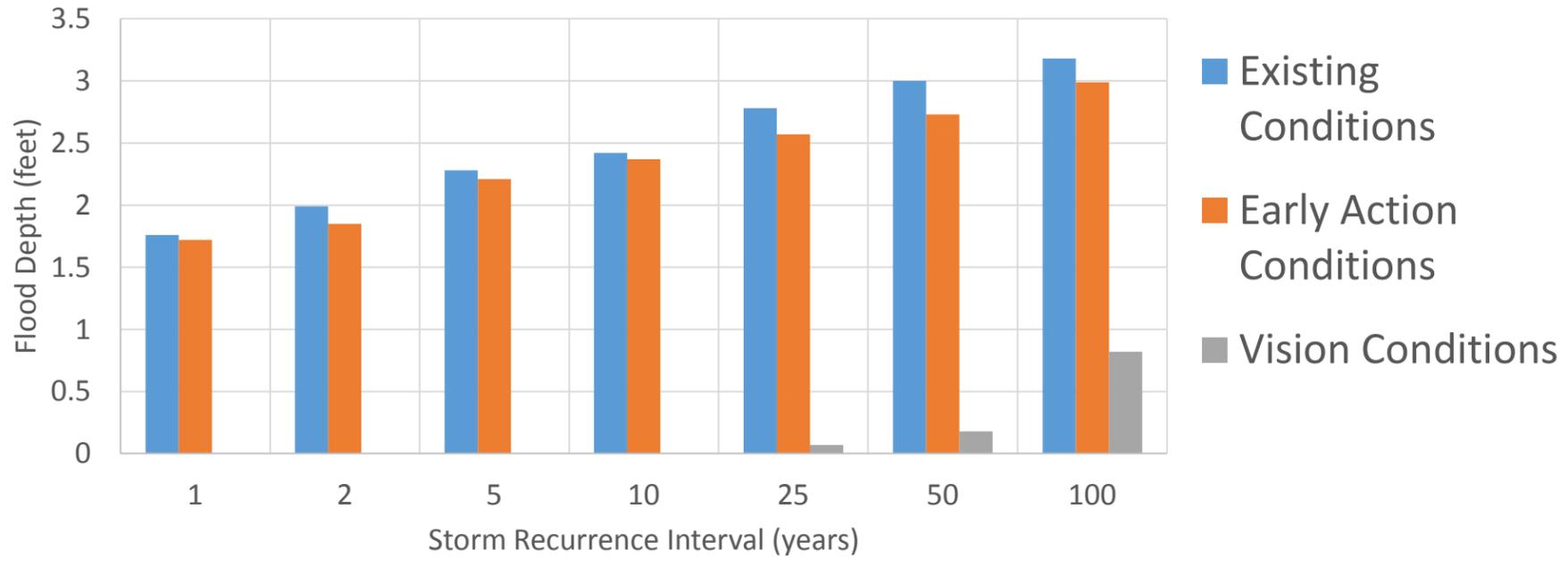
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South Willow Watershed Projects

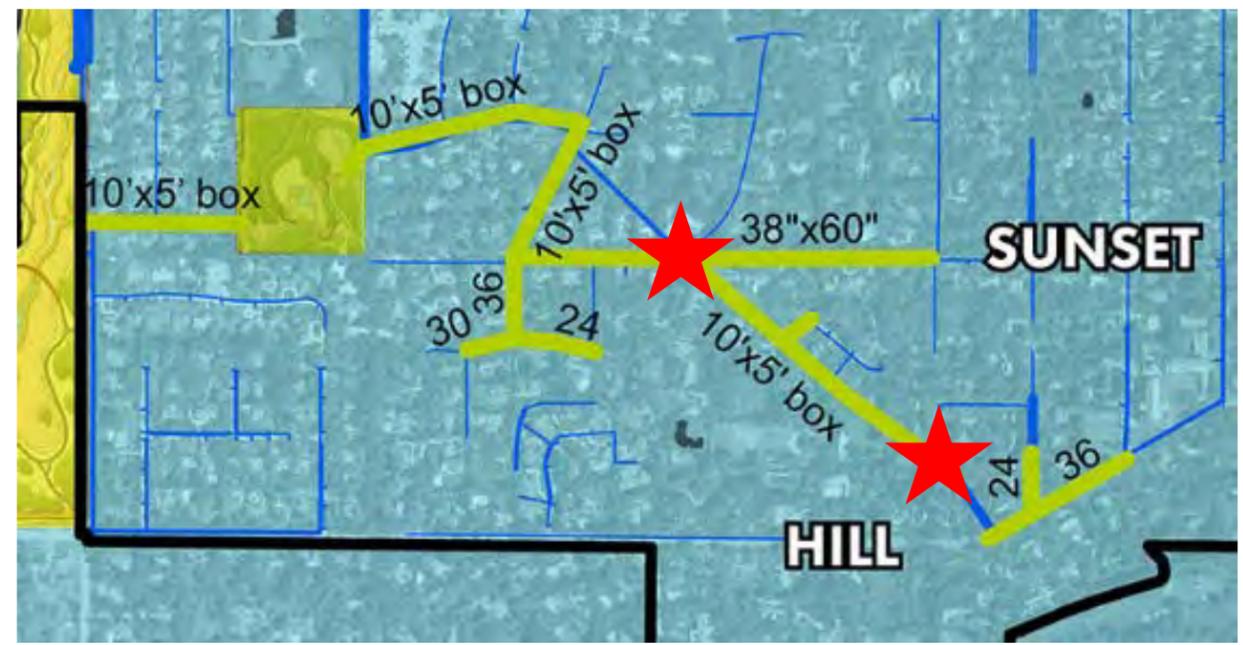
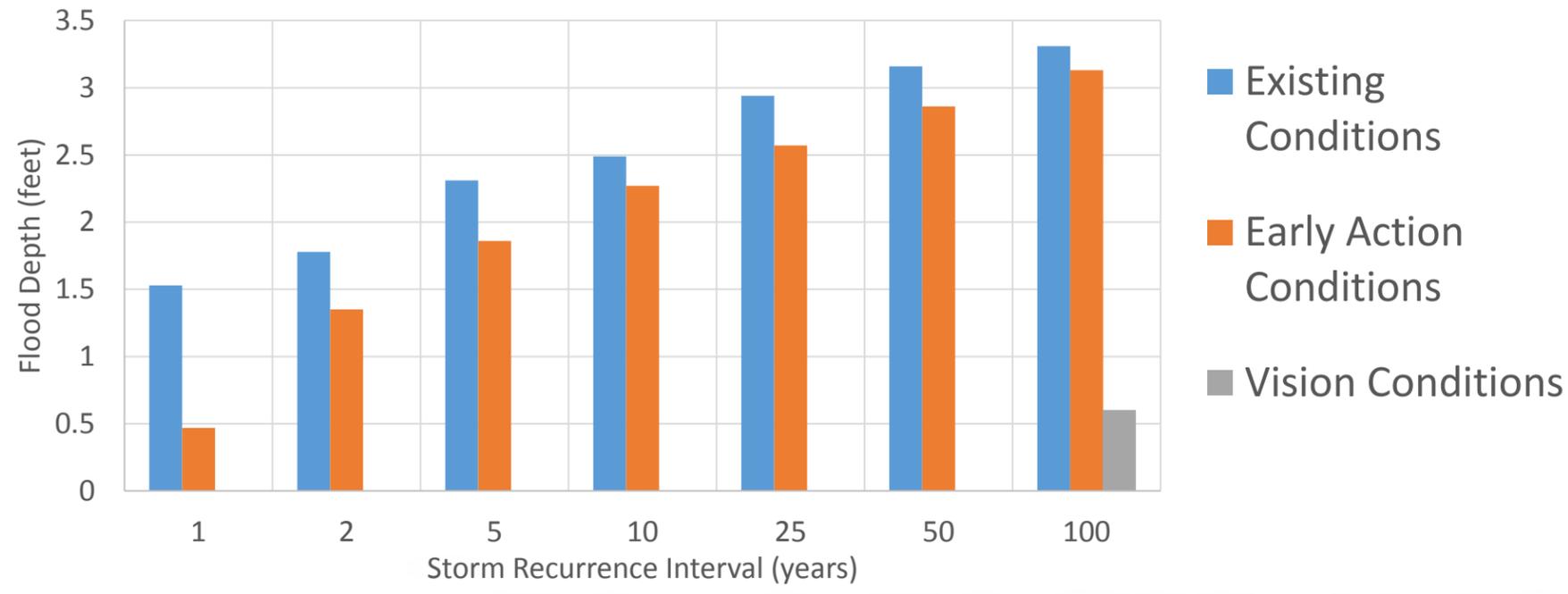


South Willow Watershed Modeling

Birch Street Cul-De-Sac

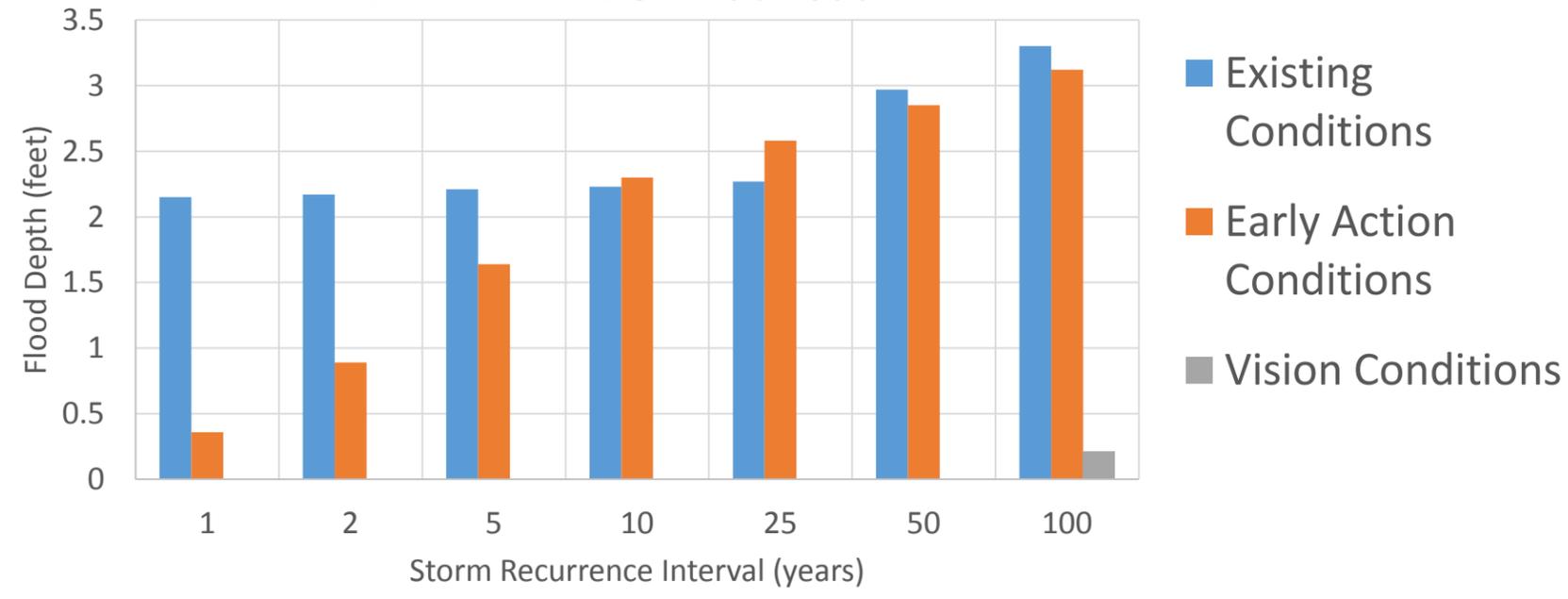


White Oak Lane and Sunset Road Intersection

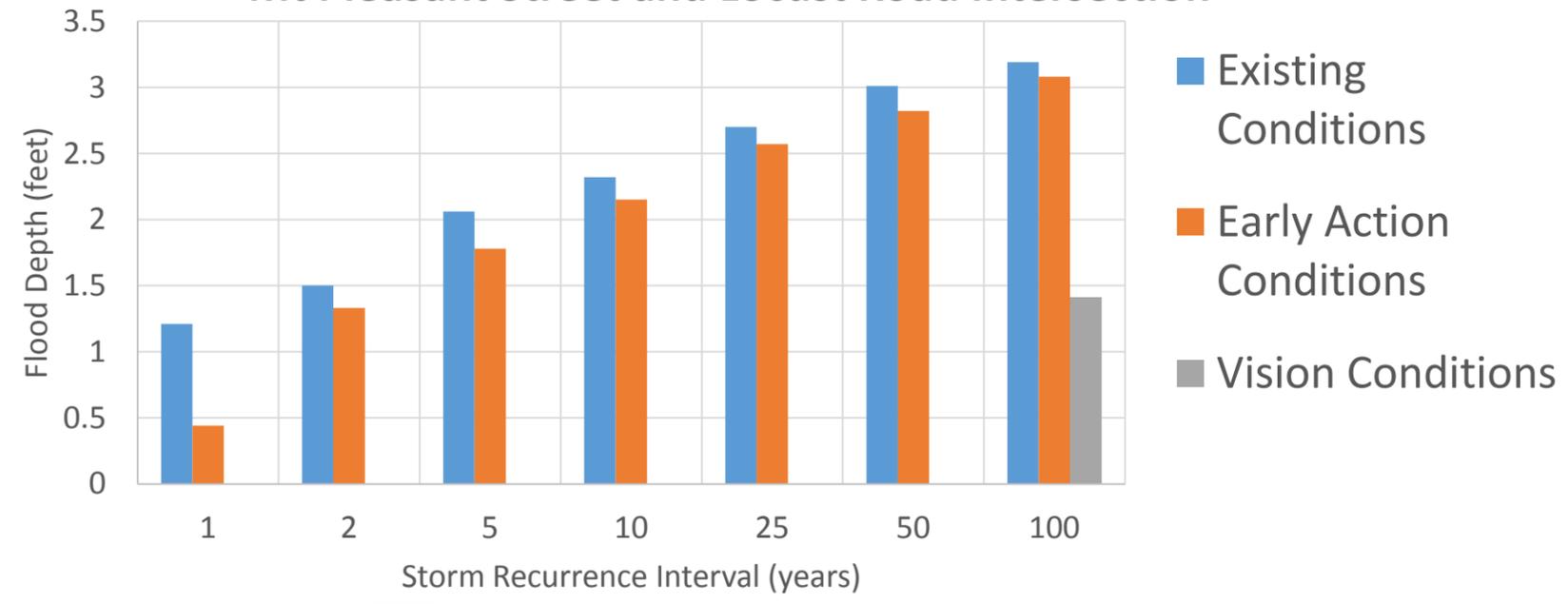


South Willow Watershed Modeling

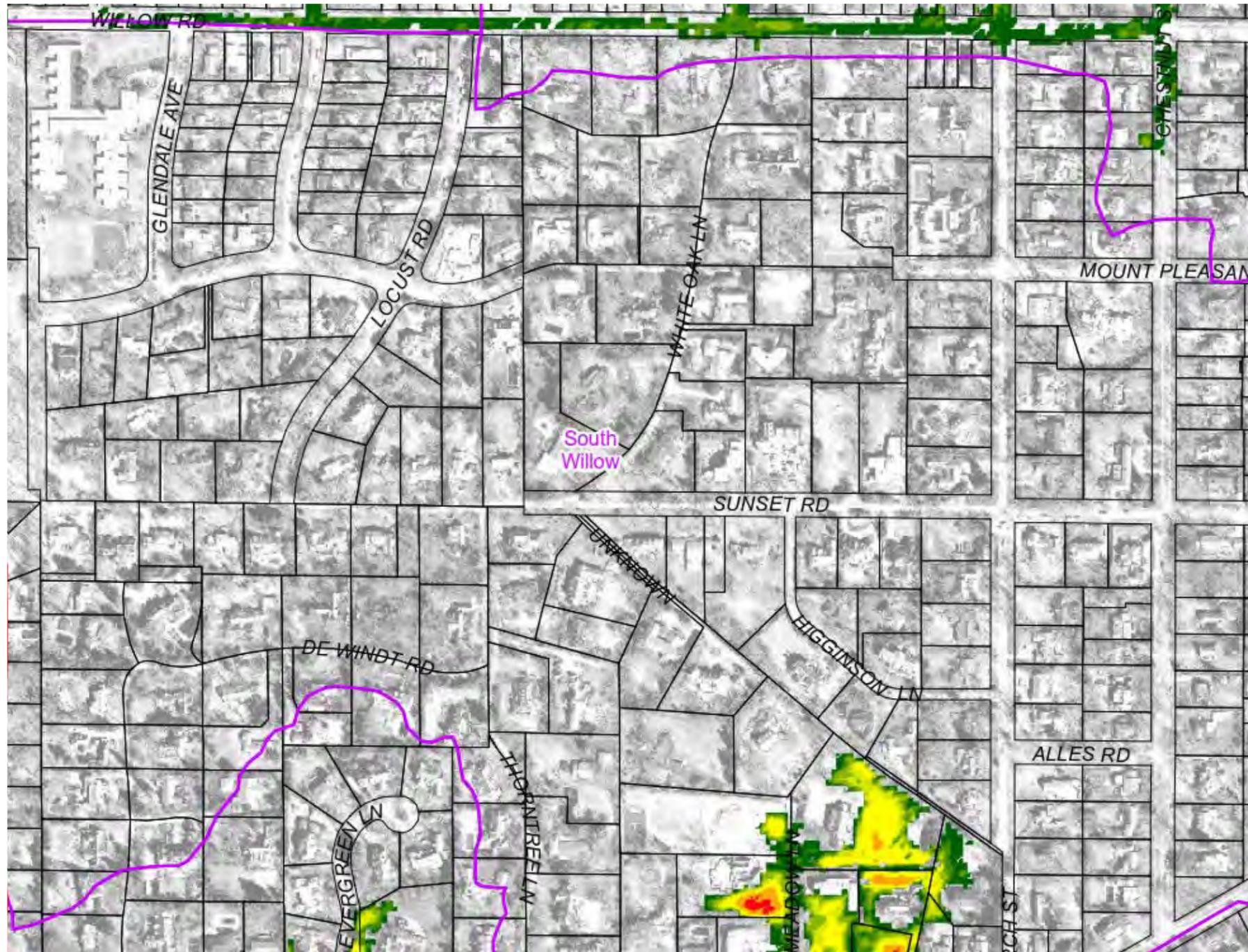
Dewindt Road



Mt Pleasant Street and Locust Road Intersection

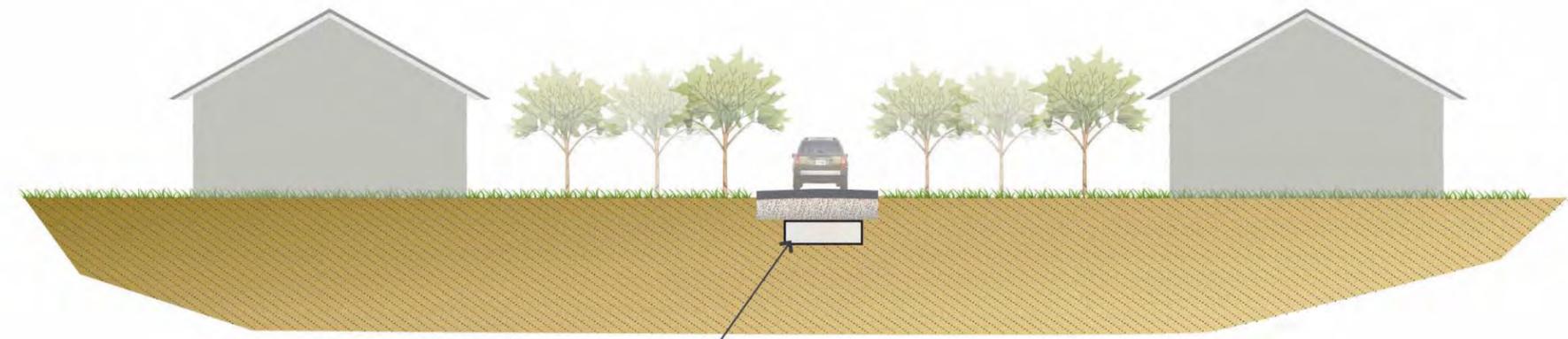


South Willow Watershed Effectiveness



10-Year Event – Full Stormwater Vision Conditions

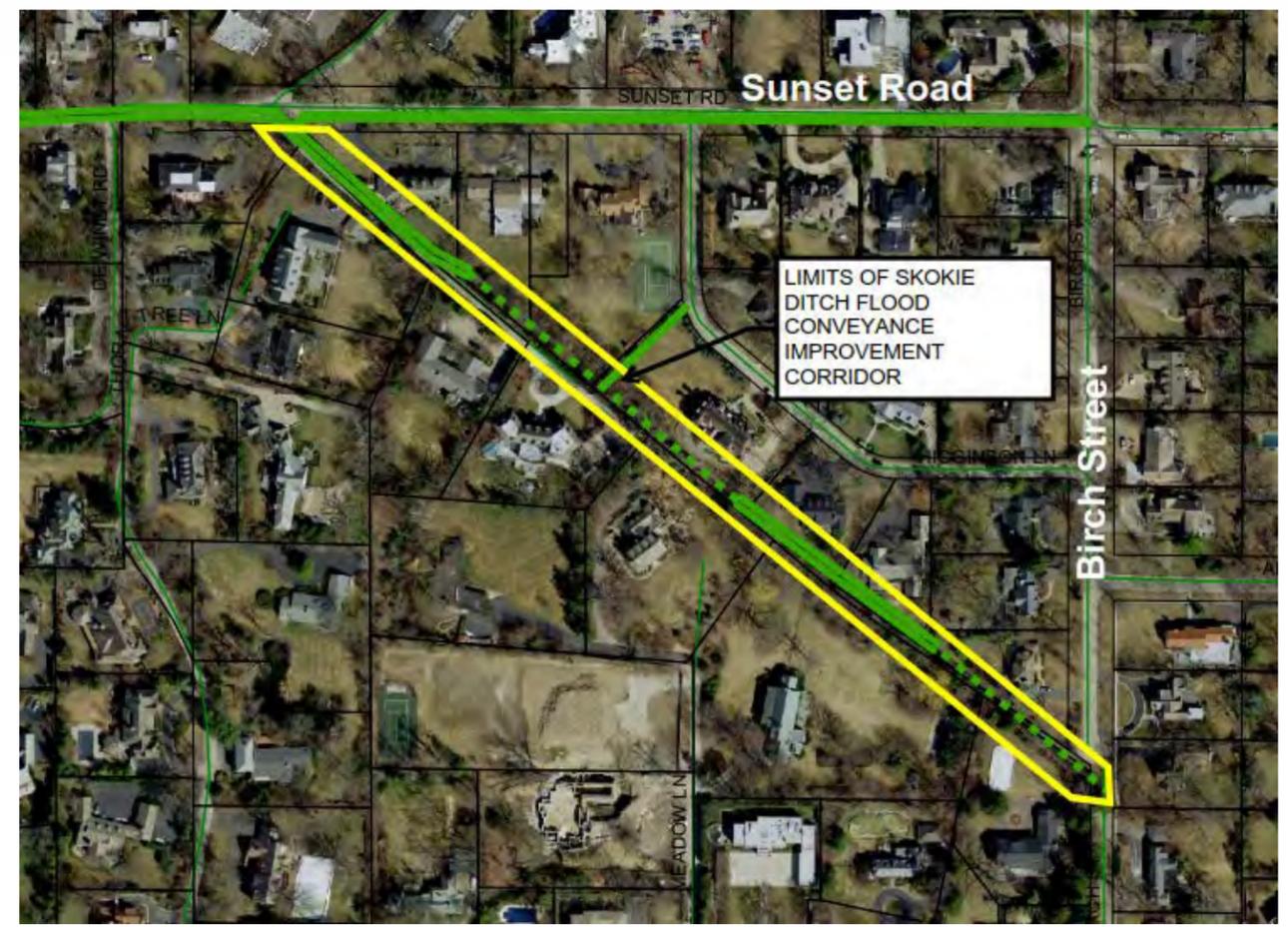
Skokie Ditch Conveyance Planning Early Action Project



Proposed Box
Conduit



Sunset Avenue

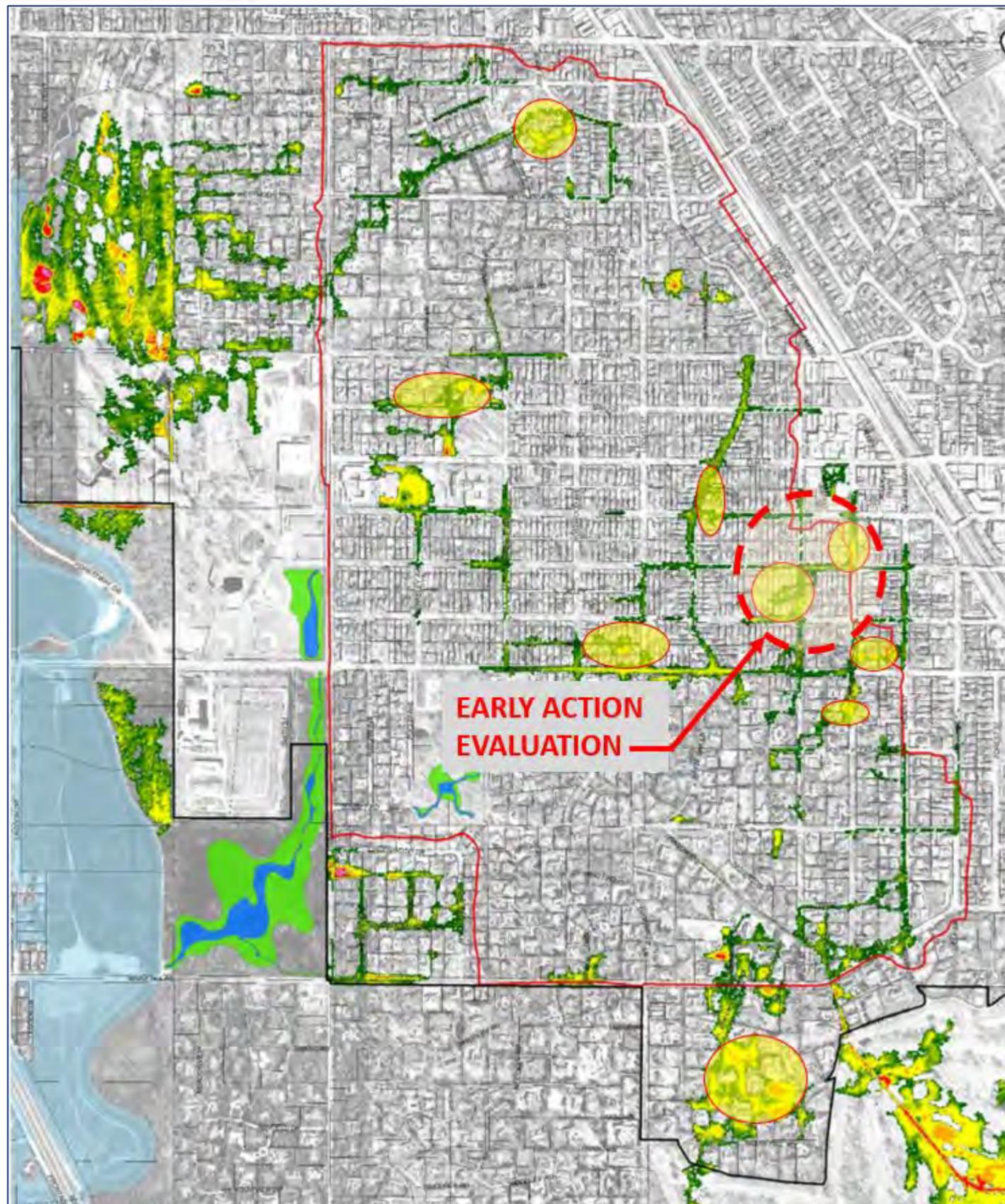


Skokie Ditch

Strategic Implementation of GI Early Action Project



Pilot Mitigation Zone Evaluation Early Action Project



- Chestnut Street between Oak St. and Cherry St.
- Birch Street between Cherry St. and Ash St.
- Programmed for water main and roadway improvements in 2017
- Experience flooding conditions annually
- Chestnut Street flooding runoff impacts the Birch Street flooding



Early Action Plan Summary

- North of Willow Watershed
 - Duke Childs Field Underground Stormwater Storage
 - Hibbard-Ash-Oak Streets Conveyance Improvements
 - Right-of-way Bioretention Sites

Project	Cost
Duke Childs Field 18 acre-foot Underground Detention Basin	\$4,368,000
Hibbard Road Conveyance Project (Duke Childs Basin to Oak Street)	\$1,327,000
Oak Street Conveyance Project (Hibbard Road to Berkley Avenue)	\$1,451,000
Ash Street, Berkley Avenue and Cherry Street Conveyance Project	\$2,715,000
Total Project Cost	\$9,861,000



Early Action Plan Summary

- South of Willow Watershed
 - Preliminary planning, design, and property owner coordination for Skokie Ditch conveyance improvements
- Overall Watershed
 - Identify strategic locations for Distributed GI
 - Evaluate a pilot area of Mitigation Zones

Possible Alternate Phasing

Possible Alternate Phasing: 2017-2021

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