



Village of Winnetka

Village Council Study Session

January 14, 2025 at 7:00 PM

Village Hall
510 Green Bay Road

AGENDA

1. **Call to Order**
2. **Public Comments**
3. **Discussion**
 - a. Eastside Stormwater Project Update
4. **Closed Session**
5. **Adjournment**

NOTICE

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Agenda Item Executive Summary

TITLE: Eastside Stormwater Project Update

PRESENTER: James Bernahl

AGENDA DATE: January 14, 2025

CONSENT: No

ITEM TYPE: Presentation

ITEM HISTORY:

In the aftermath of severe flooding in 2007, 2008, and 2011, the Village embarked on a course of significant planning, evaluation, and improvements to its storm sewer and sanitary sewer systems. Effective flood risk reduction is a complex undertaking. Many individual components need to be considered for a successful program, including stormwater runoff management, sanitary sewer backup prevention, development management, and floodplain management. All these activities were facilitated and approved through a stormwater master planning process. Due to the scale and severity of flooding in western and southwestern Winnetka, the Village Council prioritized this area for improvements. In 2016, the Council approved a stormwater management plan for west and southwest Winnetka and thereafter has continued to undertake design and construction of stormwater improvements for the benefit of the community under this plan. Given the progress that has been made in western Winnetka, in April 2024, the Village entered into an agreement with Strand Associates, Inc. (Strand); Resolution R-39-2024, to perform a stormwater management study of eastern Winnetka as shown in the attached exhibit, which also has locations where stormwater management and flooding is an ongoing issue to be addressed.

EXECUTIVE SUMMARY:

Project Description

The intent of the stormwater management study for eastern Winnetka (the Lake Michigan watershed area) is to improve stormwater management, reduce stormwater flooding, and improve water quality at the Lake Michigan outfalls. This study pursues a holistic approach including consideration of grey and green infrastructure, conveyance, storage, infiltration, individual protection retrofit programs, and a host of other traditional and emerging stormwater management technologies. Although there are limited public open spaces within the Lake Michigan watershed that are owned by the Village or other local governments such as the Winnetka Park District, School District 36, and New Trier High School, the study will identify opportunities for the Village to engage with our intergovernmental partners for joint stormwater management improvements that are also consistent with their policies, needs, and objectives.

The desired outcome of this study is to identify and evaluate a series of creative, holistic, technically and scientifically sound, sustainable, feasible, and cost-effective improvements that will provide flood risk reduction for appropriate levels of protection up to a 100-year storm event. The Village desires to engage in an open, productive, and fact-based dialogue to identify the most appropriate improvement

programs, balancing project cost; project benefits; water quality; project feasibility; time-to-implementation; and community values.

Study Progress to Date

At the September 10, 2024, Village Council Study Session, Village staff and Strand presented an overview of the study area, identified the four sub watershed areas and existing stormwater outfalls to Lake Michigan and focused on evaluations within the Elder Lane sub-area watershed. In that presentation, Strand explained their investigation of the existing stormwater infrastructure, runoff characteristics, and flooding issues within this sub-area. Strand prepared and shared modeling exhibits illustrating where severe flooding occurs during various storm levels. Strand also explained the potential stormwater improvement alternatives they identified and the stormwater modeling and evaluations they had performed to provide flood mitigation and water quality improvements within this sub-area. Also, during this meeting, Strand confirmed that the Park District's proposal for sizing and relocating the Elder outfall would not adversely impact the existing drainage conditions based on modeling analysis.

Since that presentation, Strand has fully completed their modeling and evaluations and has identified viable and effective stormwater improvements for the Elder Lane sub-area. These conceptual improvements were evaluated with the current stormwater outfall at Elder Park & Beach, which means the current outfall can be left in place and rehabilitated and will still provide the target level of flood mitigation. If the Winnetka Park District proceeds with their stormwater outfall replacement proposal, it will provide some additional stormwater capacity, but it is not needed for the Village to achieve the identified Elder Lane sub-area improvements. Therefore, the sizing of the existing outfall will be sufficient to achieve our goals. Strand will address this in more detail during their meeting presentation.

Since September 10, 2024, presentation, Strand has also gathered background information including updated utility mapping, topographic mapping, and prior stormwater improvement records in the other three sub-area watersheds of eastern Winnetka. With this background information, Strand has completed their existing conditions modeling to reflect existing conditions and has identified areas of flooding and stormwater management concerns in the three other sub area watersheds. Strand has started to evaluate potential stormwater management improvements to provide flood mitigation and water quality improvements within these other three sub-areas and will present these concepts during their meeting presentation.

Council Update

Members of Strand's study team along with Village staff will be present at the January 14, 2025, Council Study Session to explain the identified stormwater management improvements for the Elder Lane sub-area watershed. They will also provide a project progress update for the Elm Street-Willow Road, Spruce Street, and Hubbard Woods sub-areas. This update will include initial findings and potential identified improvement alternatives for these sub-areas. With Council concurrence, and after this meeting, Strand will assist the Village in engaging with our intergovernmental partners where identified stormwater improvements within each of the four sub-area watersheds could pose an opportunity for joint stormwater management improvements as the next step in the evaluation process.

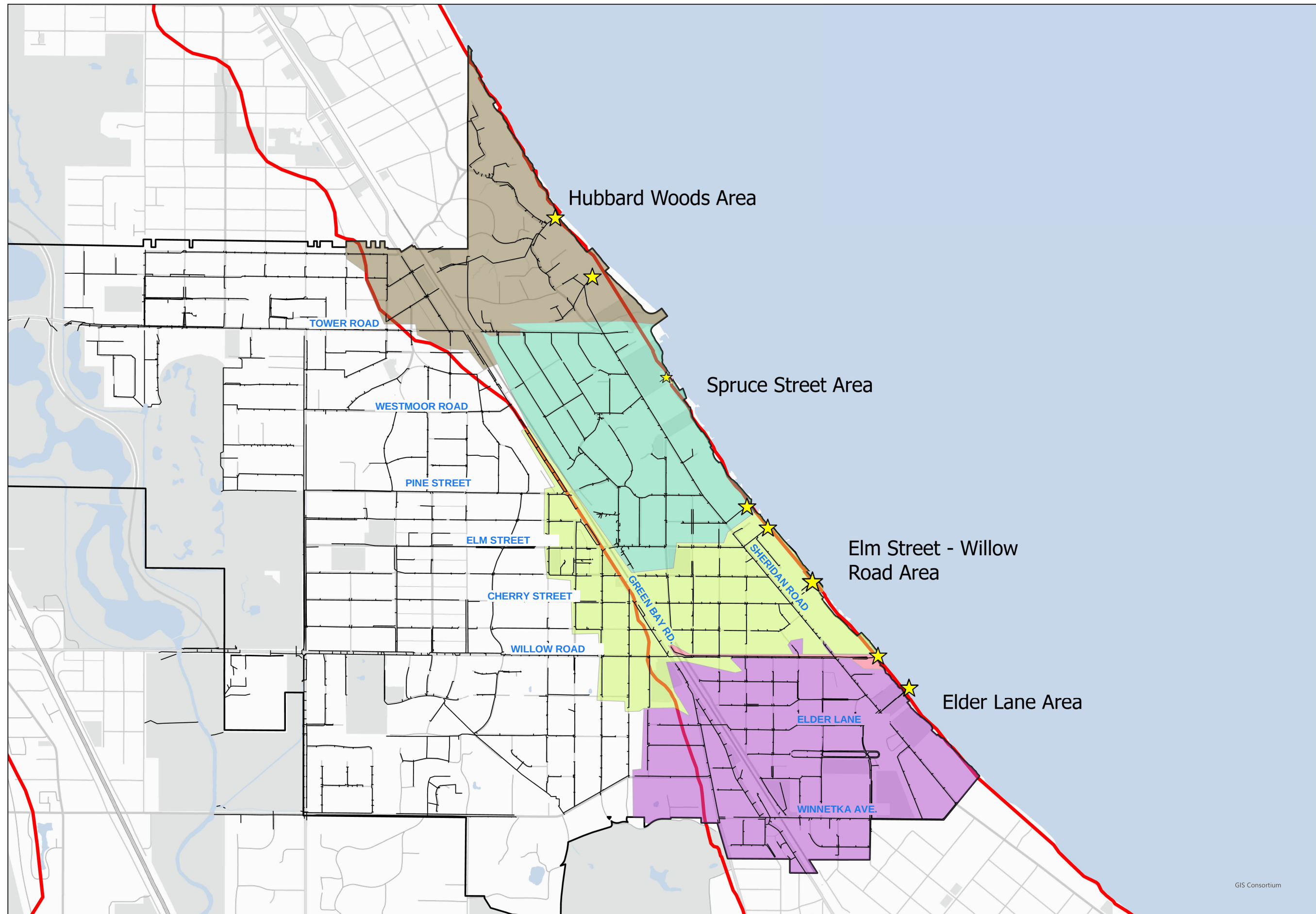
Given the high priority of the Village's stormwater management efforts and the potential community-wide impacts, when the next phase of assessments of the entire eastern Winnetka study area have been completed, the Village will schedule the first of two public open-houses to provide educational and informational materials, present initial evaluations and findings, and share potential stormwater improvement alternatives for public input.

RECOMMENDATION:

Discussion only; no immediate action needed.

ATTACHMENTS:

1. Eastern Winnetka Study Area Map



Eastern Winnetka Study Area

Watershed Sub-Basins

GG3
HH
KK5

CC2

FF3

Storm Sewer

Discharge Points

EXHIBIT 1

Page 5 of 5

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GIS Consortium