

MEMO

TO: Whitewater Common Council

FROM: Brad Marquardt, Public Works Director

DATE: October 10, 2025

RE: Starin Park Underground Detention Basin

The reason the Starin Park Underground Detention Basin is being considered resides in the need for stormwater quality projects that will help the City meet requirements in the City's Municipal Separate Storm Sewer System (MS4) Permit from the DNR. The Permit requires the City to make progress toward removing Total Suspended Solids and Total Phosphorus from storm water runoff. In the past few years, the City has made progress by tackling low hanging projects. In 2021, instead of building a detention pond in the Business Park, a Total Phosphorus Leaf Credit was applied for and received (Phosphorus removal 19.1 pounds). In 2021, a high-efficiency sweeper was purchased (Phosphorus removal 30.9 pounds). The City tried to purchase property in 2022 to build a detention basin, but the land purchase fell through. In lieu of this, in 2023 the City was able to update the Total Phosphorus Leaf Credit (Phosphorus removal 27.92 pounds) using new established guidelines from the DNR.

In 2025, Strand Associates update the City's Stormwater Quality Management Plan (SQMP). As part of updating the SQMP, the stormwater quality modeling was updated. In doing so, the City now meets the Permit limit for Total Suspended Solids removal. However, there is still a significant gap in the Total Phosphorus removal. The low hanging, easy projects are completed. Projects to address Phosphorus removal would include building detention basins, buying agricultural crop land and turning it into a prairie or entering into an agreement for Water Quality Trading. Water Quality Trading involves working out an agreement, typically only for 10 years, with a farm. The farm does improvements to reduce phosphorus run-off, the City pays a yearly "rental fee" and the City receives the phosphorus removal credits. After the term of the agreement is up, the farm could walk away, thus reducing the City's credits back to where they were.

Therefore, staff is pursuing the Starin Park Underground Detention Basin Project for a number of reasons. One it removes 20.9 pounds of Total Phosphorus. Two, the City does not have to purchase property. Three, the University who also has their own MS4 Permit from the DNR also needs to remove additional Total Phosphorus and Total Suspended Solids from stormwater runoff from their property. Four, the land above the detention basin is still usable.

The Starin Park Basin treats stormwater from both City property and University property. It is located in Starin Park (see attached location map) because it is the only location a detention basin could be constructed without purchasing property and demolishing houses. If it was located on University property, it would not treat any City stormwater runoff.



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Additionally, as part of the last MS4 Permit which expired in April 2024, the City needed to submit an updated Implementation Plan in 2023 indicating how it would make progress toward our Permit limits for the next MS4 Permit term. Each Permit term is for five years. The Starin Park Underground Detention Basin was listed as the desired project. **In the DNR's concurrence letter (attached), the DNR expects the City to construct the Starin Park Underground Detention Basin or provide an alternate project(s) that would provide similar level of pollution control.** Another requirement of the current permit is the removal of 10% of the reduction gap by 2030. The Total Phosphorus gap is 374.5 pounds; thus 37.45 pounds of Total Phosphorus must be removed by 2030. The 20.9 pounds of Total Phosphorus being removed with this project gets the City one step closer to compliance.