

Capital Improvement Project Hastings: 15th St. and Bailey St. TSS Reduction



Figure 1. Map of the area in context, with filtration basin location marked in pink.

The Vermillion River Watershed Joint Powers Organization (VRWJPO), in partnership with the City of Hastings and Dakota County, is working to systematically reduce discharge of total suspended solids (TSS) and total phosphorous (TP) from reaching the Vermillion River. The intersection of 15th St. E and Bailey St. is an older area near downtown Hastings with little to no stormwater treatment for its impervious surfaces, as it was developed before modern stormwater treatment requirements. This area discharges stormwater runoff directly into the lower Vermillion River, listed by the Minnesota Pollution Control Agency as an impaired stream segment for TSS.

The partners will install a surface filtration basin on City-owned property from its 43.4-acre drainage area to remove TSS and (TP) from stormwater before it discharges into the Vermillion River. A filtration basin is an engineered sump or earthen depression which will improve stormwater quality by filtering stormwater runoff using vegetation, filter soil media, and, if applicable, imported amended soils. The basin will drain stormwater through an underground drain tile system under the filter soil media.

This project will be funded in part by a FY25 Watershed-Based Implementation Fund (WBIF) grant from the Minnesota Board of Water & Soil Resources (BWSR), distributed from the Minnesota Clean Water Fund.

Partners

- VRWJPO
- City of Hastings
- Dakota County
- BWSR

Installation (anticipated)

2026

Location

Hastings

Subwatershed

Mississippi Direct

Costs and Contributions (anticipated)

VRWJPO: \$120,445City of Hastings: \$2,500Dakota County: \$5,000

BWSR: \$197,055 in WBIF grant funds

Benefits

- The project will reduce an estimated 3.8 tons/year of TSS and 15.2 lbs./year of TP from flowing into the Vermillion River.
- Continued improvements to the Vermillion River support recreation in the area, including fishing, kayaking, and biking on the developing Vermillion River Greenway.



Figure 2. An example of a recent stormwater treatment basin project completed by the VRWJPO.

A grant from the Clean Water Fund, one of four funds established by the Clean Water, Land & Legacy Amendment, supports this project. <u>Clean Water Stories</u> can be found on the Minnesota Board of Water and Soil Resources website.

