



HARRISONBURG | VA
FRIENDLY BY NATURE



May 27, 2025, City Council Meeting

Title

Saufley Farm Land Conversion Project

Summary

The Public Works Department seeks City Council approval to use a portion of the Sauflay Farm as a stormwater Best Management Practice (BMP) to achieve credits towards our Chesapeake Bay TMDL 2028 compliance targets as stipulated in the City's Municipal Separate Storm Sewer System (MS4) permit. The project would be a land use conversion practice that would replace approximately 100 acres of pasture, hay, and crop fields into forested land cover.

Recommendation

Public Works recommends approval of this project as presented.

Fiscal Impact

Estimated Project Costs

Item	Cost/Acre	Total Cost
300 hardwood trees/ac + tree tubs	\$3,760	\$376,000
Land Value	\$8,500	\$850,000
	Total	\$1,226,000*

*Stormwater Enterprise Funds would be utilized for this project

Context & Analysis

This project would convert approximately 100 acres of Sauflay Farm as well as preserve an additional 19 acres of existing forest. Maintenance of the site will primarily be during the first 3-5 years after the completion of tree planting and would include spot spraying invasive species and mowing around the trees to reduce competition of undesirable species. It is estimated that maintenance costs will be approximately \$15,000 per year for the first 3-5 years. After the trees are established, the cost of maintenance will be reduced.

The project will provide a reduction of 186.9 lbs/yr for Total Phosphorus (TP) and 1,313.9 lbs/yr for Total Nitrogen (TN). This would allow the City to satisfy the Chesapeake Bay TMDL for TP and provide over 50% of the remaining TN TMDL requirement.

The cost per pound of Nitrogen removed for the project is approximately \$1,200/lbs. Previous stormwater projects have had cost per pound of nitrogen that ranged from \$1,500/lbs to

\$9,500/lbs. This project would be the City's most cost-effective project to-date.

Options

1. Approve the project as presented.
2. If approval is not granted, Public Works would need to accelerate planning efforts for multiple other BMPs that are less cost effective.

Attachments

1. Presentation