



*This program set out to create an Enhanced Street Sweeping Plan for the City of Woodbury and find ways for the City to overcome existing barriers that would limit implementation of the recommendations in the plan. Specific objectives of this study were to identify road-specific recommendations for the timing and frequency of street sweeping, quantify the resulting phosphorus and sediment load reductions to area lakes, itemize the costs of implementing an enhanced street sweeping program, and provide a cost-benefit analysis for recommendations with respect to water quality goals and current maintenance practices.*

**9) Describe project/program:**

*SWWD commissioned the development of an Enhanced Street Sweeping Plan for the City of Woodbury in 2022 to address nutrient and sediment loading to several large recreational lakes within the SWWD: Markgrafs, Wilmes, Powers, Colby, Bailey, and La Lakes. Battle Creek and Carver Lakes in the Ramsey-Washington Metro Watershed District (RWMWD) were also included in what became a city-wide plan. The watersheds containing many of these lakes are heavily developed and highly impervious, leaving few opportunities for other cost-effective regional stormwater treatment capital improvement projects or BMPs. The relatively recent age of development also limits the opportunities and extends the timeline of any retrofit opportunities that would otherwise come with land redevelopment.*

*Upon completion of the plan, SWWD and Woodbury immediately began a pilot enhanced street sweeping program in the fall of 2022 where the city operated its two existing sweepers full time during the last month of the growing season through leaf drop. All expenses (beyond the routine fall sweep) were covered by SWWD including operational labor and material disposal. Woodbury gathered data on the amount and types of material it picked up and calculated sediment and nutrient loadings associated with the material.*

*The program will expand in 2024 with the addition of a third regenerative air sweeper to Woodbury's fleet, funded entirely by SWWD. Annual total load reduction estimates with full plan implementation are 950 tons of sediment and 709 pounds of phosphorus at a cost of \$496/lb TP.*

**10) Describe public benefit:** *Woodbury's residents benefit from this program in many ways, including improved water quality and clarity in area lakes, increased lifespans of area stormwater ponds and reduced city maintenance costs over time, and – notably – improved aesthetics and quality of life with cleaner streets throughout the community. The partner organizations have also begun to install vinyl wraps on the city's sweepers to promote the Adopt-A-Drain Program and other messaging, using the sweepers as slow-moving billboards to promote environmental awareness. A "Name the Sweeper" contest this fall showed that the force of this program was strong with city residents, who chose "Obi-Wan Cleanobi" as the new sweeper's name.*

**11) Watershed plan reference** (where is the problem/solution identified in the watershed plan, does it address stated problems, objectives and goals):

*The SWWD Watershed Management Plan (2016, Amended 2022) incorporates a variety of guidance documents, including the Woodbury Enhanced Street Sweeping Plan itself. Implementation is directed through SWWD's Long Range Work Plan through the Watershed Restoration, Reconstruction and Resiliency Program.*

**12) Was project goal achieved? If so, how was the success measured?**

*Total sediment and phosphorus picked up during the fall 2022 pilot program were 274 tons and 247 pounds, respectively. The pilot was considered by all to be a huge success and has continued throughout 2023 with Woodbury sweeping all of its streets approximately every six weeks throughout the year. RWMWD has also joined the funding effort for areas of the city within its jurisdiction, strengthening city-wide support and confidence in the program.*

**13) Watershed or water body name to be protected or improved by project or program (if applicable)**

*Markgrafs, Wilmes, Powers, Colby, Bailey, La, Battle Creek, Battle Creek Lake, Carver Lake, and Tamarack Swamp*

**14) Watershed or water body information (e.g., size, watershed area, classification, description):**

*This program operates city-wide in Woodbury and multiple waterbodies benefit as noted above.*

**15) Project partners (financial or inkind support)**

<u>Agency or organization</u>	<u>% Participation</u>
SWWD	60 %
RWMWD	20 %
City of Woodbury	20 %
	%
	%
	%

**16) Start date:** Fall 2022

**17) Project status:**

On-going Project/Program X

Completed:                      Completion date:

**18) Project cost** (this can be provided as total cash cost or a breakdown can be provided to show the cost of various project elements and partners):

*Annual operating costs of the program at full implementation are anticipated to be approximately \$350,000, funded by the respective watershed districts. Additionally, SWWD has provided over \$650,000 in grants to Woodbury to support replacement of the City's two existing sweepers and fully fund the cost of adding a third sweeper*

*(regenerative air) to the city's fleet for use in 2024. Annual total load reduction estimates with full plan implementation are 950 tons of sediment and 709 pounds of phosphorus at a cost of \$496/lb TP.*

**19) Letters of support:**

Each application may have up to two letters of support. The letters can be from individuals, agencies, organizations, or local units of government. Letters from staff or managers of the sponsoring District will not be accepted. Attach letters to this application as a pdf document.

**20) Photos:**

As noted in the instructions, each nomination must be accompanied by **at least 4 (4) photos**, but no more than eight (8) of the project or program. The photos must be in a digital format.





8301 Valley Creek Road • Woodbury, MN 55125 • woodburymn.gov  
651-714-3593 • TTY 651-714-3568

RE: MN Watersheds Project & Program of the Year

To whom it may concern,

On behalf of the City of Woodbury, I extend our support for considering South Washington Watershed District and Ramsey Washington Metro Watershed District for the MN Watersheds Project & Program of the Year Award. It is only through partnership with our watershed districts that the City was able to substantially increase street sweeping throughout the spring, summer and fall months.

While this effort clearly prevents pollution from reaching our local water bodies, it provides pretreatment benefits to our sophisticated stormwater system and is an extension of our existing services to the members of our community, who aid in funding the watershed districts' budgets.

This partnership is a prime example of capitalizing on existing strengths and equipment to accomplish shared goals, directed by scientific information. Where the City has existing equipment, hauling operations and qualified personnel; the districts' have funding available for water quality improvements.

Since the start of the enhanced efforts, the City has been able to continue to grow its staffing, equipment and public understanding of the importance of street sweeping and is committed to continuing down this path. As a public engagement activity, in 2023 we held our first annual Name a Street Sweeper contest and wrapped the sweeper with its new name "Obi Wan Clean-obi."

For the reasons listed, the City of Woodbury fully supports recognizing South Washington Watershed District and Ramsey Washington Metro Watershed District with the MN Watersheds Project & Program of the Year Award.

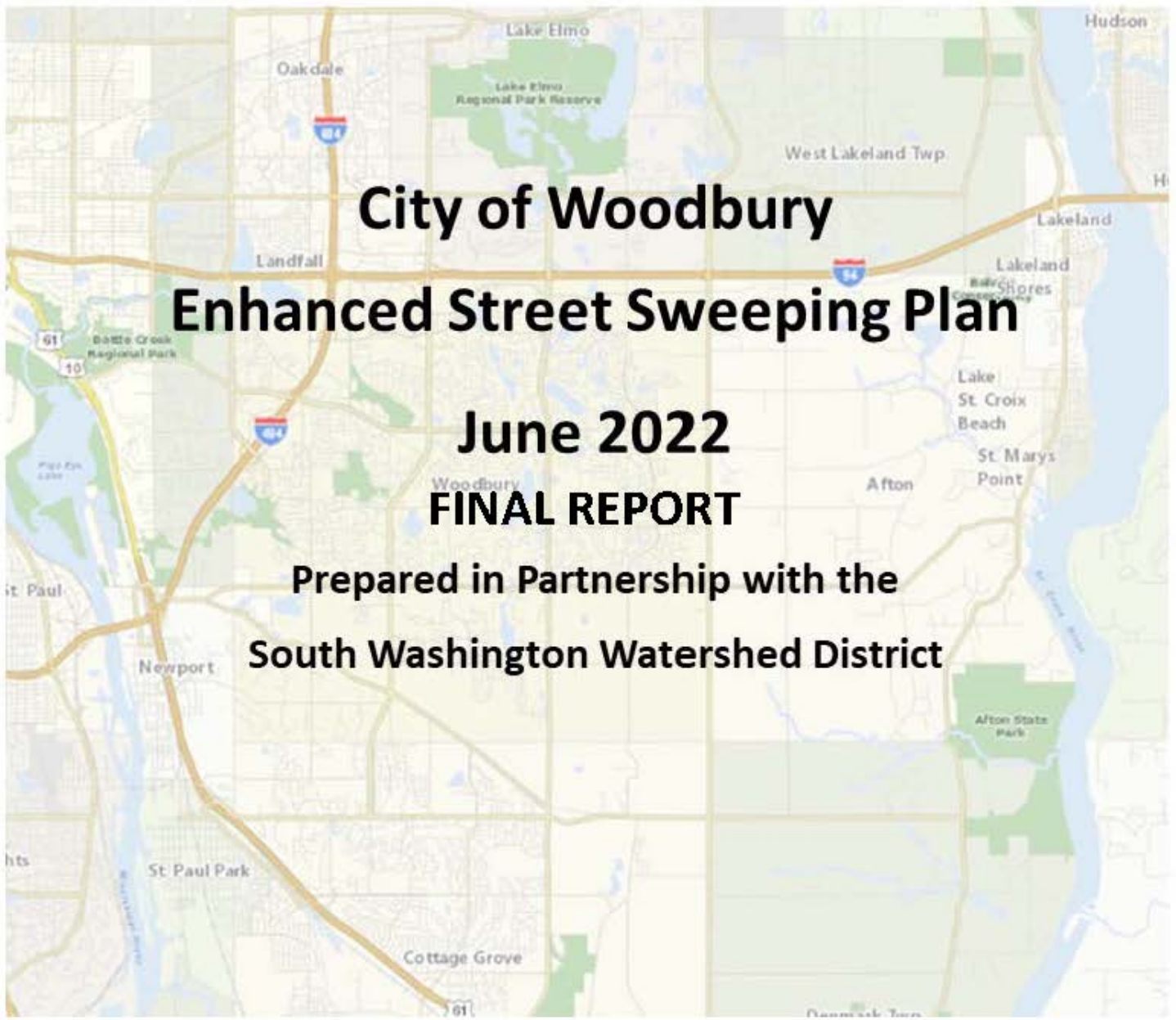
Sincerely,

A handwritten signature in black ink, appearing to read "Kristin Seaman".

Kristin Seaman

City of Woodbury

[Kristin.seaman@woodburymn.gov](mailto:Kristin.seaman@woodburymn.gov)



# City of Woodbury Enhanced Street Sweeping Plan

## June 2022 FINAL REPORT

Prepared in Partnership with the  
South Washington Watershed District







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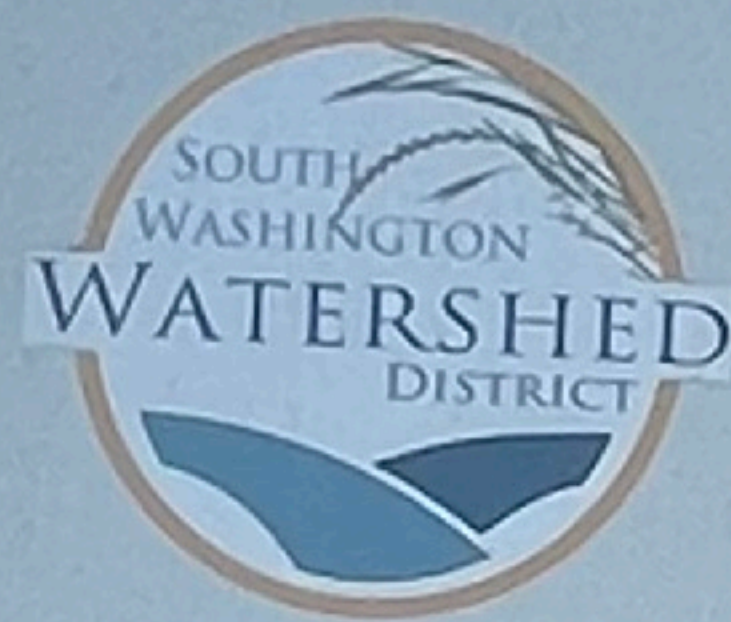
city of  
woodbury

2347

LOWMASTER



2236



Only Rain  
Down The  
Drain



Keep our waterways clean!

Minnesota  
963832  
FEB. TAX EXEMPT '24





Did You Know...  
Most stormwater drains  
connect directly to local lakes?



Be part of the solution at [adopt-a-drain.org](http://adopt-a-drain.org)

2236



Keep our w

Woodbury



Most storm drains connect directly to local lakes

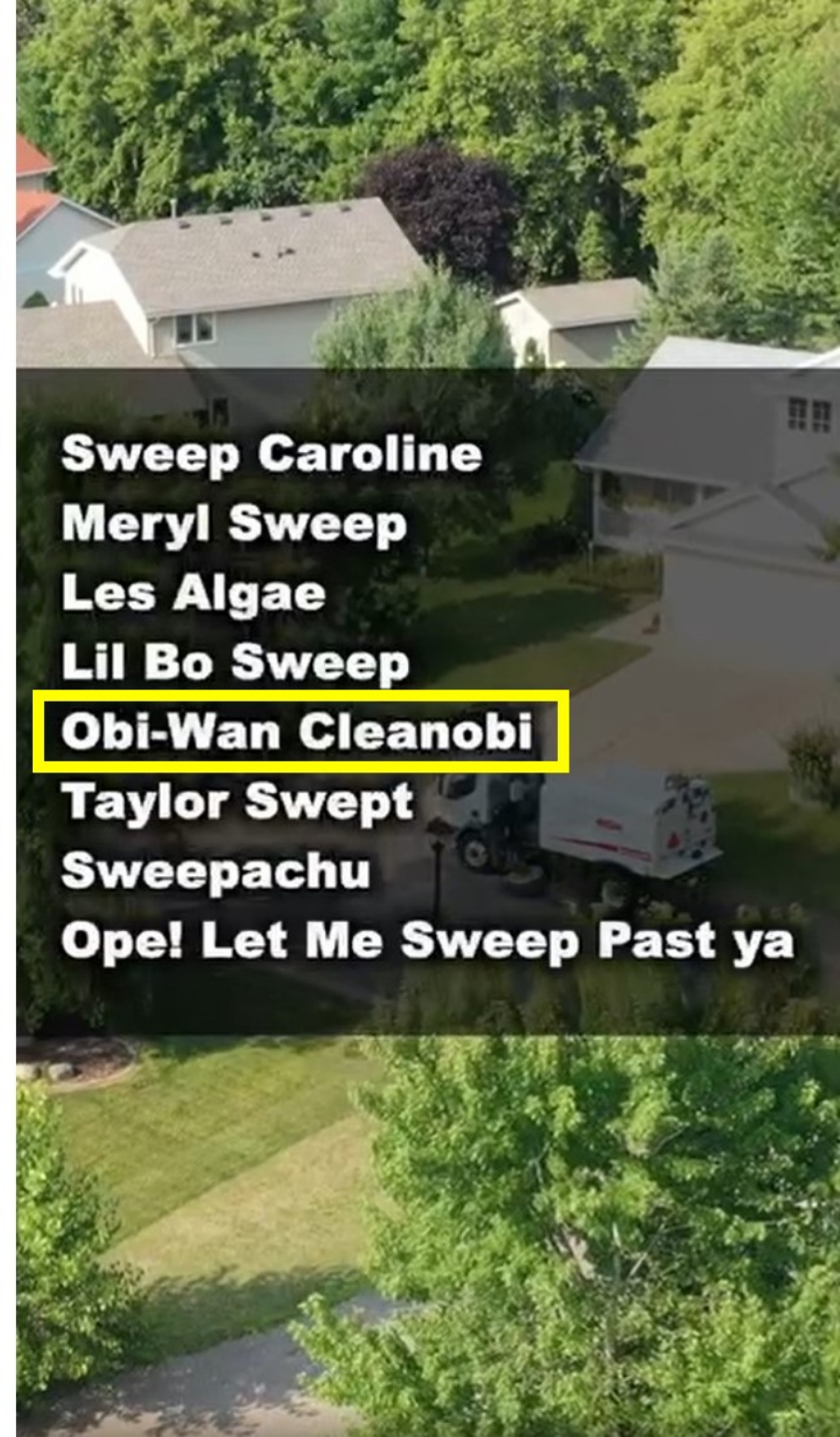
Be part of the solution at [adopt-a-drain.org](http://adopt-a-drain.org)

EcoInfused  
Technology

CITY OF  
Woodbury







- Sweep Caroline**
- Meryl Sweep**
- Les Algae**
- Lil Bo Sweep**
- Obi-Wan Cleanobi**
- Taylor Swept**
- Sweepachu**
- Ope! Let Me Sweep Past ya**

[woodburymn.gov/StreetSweeperContest](http://woodburymn.gov/StreetSweeperContest)

The block contains the website URL and three logos: the City of Woodbury logo, the SWWD logo, and the RWMWD logo.

