

CITY OF WHITE BEAR LAKE

MS4 GENERAL PERMIT & STORM WATER POLLUTION PREVENTION PROGRAM



**APRIL 27, 2021
ANNUAL MEETING
REPORTING ON 2020 ACTIVITIES**

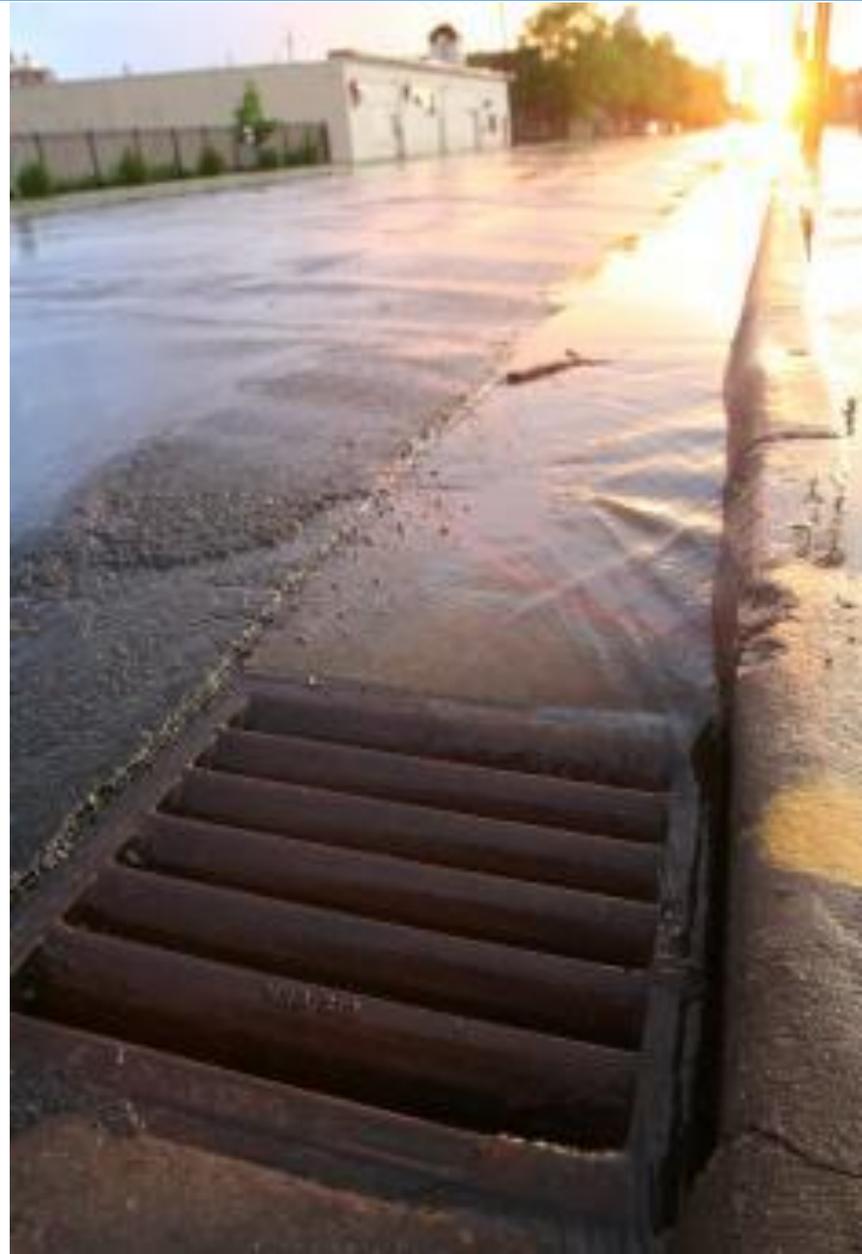
*County Road F Raingarden Retrofit
Partially funded through a VLAWMO cost share grant*

MS4 General Permit

Municipal Separate Storm Sewer System (MS4):

- System of stormwater conveyance (streets, curb & gutter, ditches, storm sewer)
- Owned or operated by a state, city, town, county, district, association, or other public entity.

MS4s in Minnesota must satisfy the requirements of the MS4 General Permit, issued by the Minnesota Pollution Control Agency (MPCA).



Purpose of the MS4 General Permit:

“reduce the amount of pollution that enters surface and ground water from storm water conveyance systems”.

Accomplished through development and implementation of a stormwater pollution prevention program (SWPPP), which has six components (called Minimum Control Measures, or MCM's):

1. Public education and outreach
2. Public participation and involvement
3. Illicit discharge detection and elimination
4. Construction site stormwater runoff control
5. Post construction stormwater management
6. Pollution prevention/good housekeeping

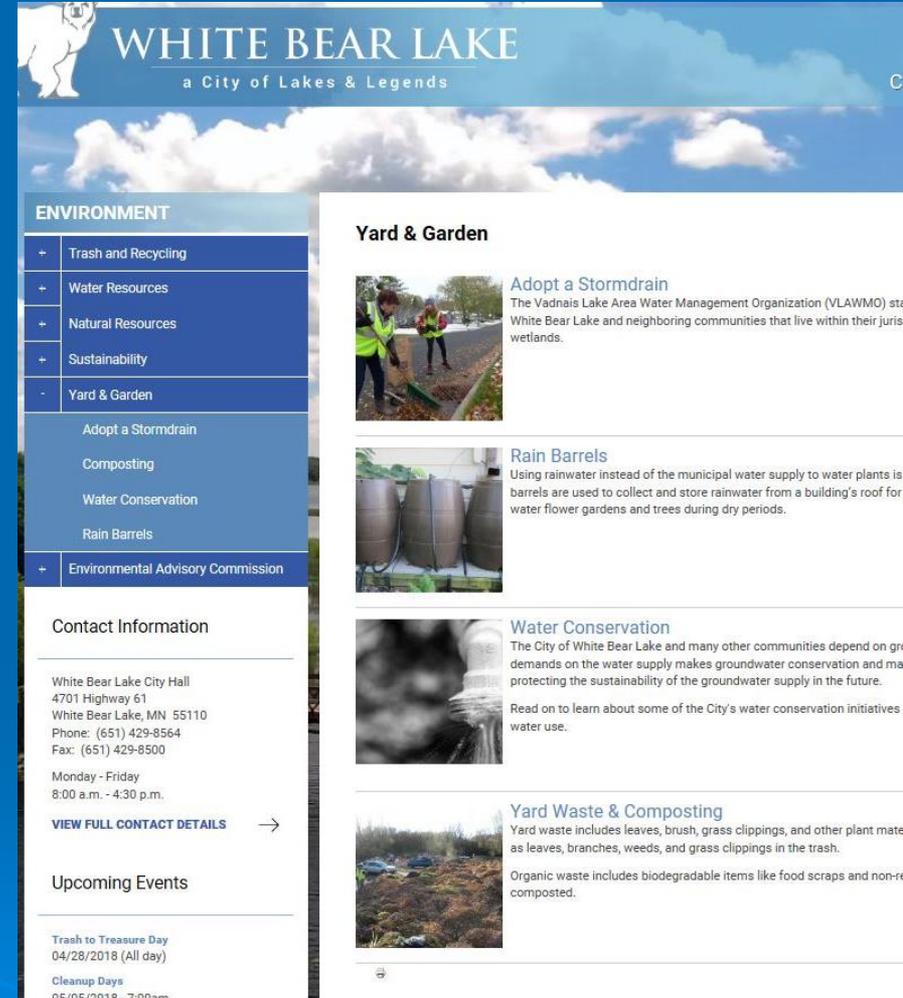
Plus: impaired waters requirements



1. Public Education and Outreach

Summary of Program

- Distribute educational materials that informs the public of the impacts of stormwater discharges
 - Website
 - City newsletter
 - White Bear Press
 - Facebook
- Participate in outreach activities
 - Host water related events
 - Conduct workshops
- Partner with watershed management organizations & others



The screenshot displays the White Bear Lake City website, which features a navigation menu on the left and several content sections on the right. The navigation menu includes categories like Environment, Trash and Recycling, Water Resources, Natural Resources, Sustainability, Yard & Garden, Adopt a Stormdrain, Composting, Water Conservation, Rain Barrels, and Environmental Advisory Commission. The main content area is divided into sections such as 'Yard & Garden' (with sub-sections like 'Adopt a Stormdrain', 'Rain Barrels', and 'Water Conservation') and 'Contact Information' (providing address, phone, fax, and hours). There are also sections for 'Upcoming Events' and 'Yard Waste & Composting'.

WHITE BEAR LAKE
a City of Lakes & Legends

ENVIRONMENT

- + Trash and Recycling
- + Water Resources
- + Natural Resources
- + Sustainability
- Yard & Garden
 - Adopt a Stormdrain
 - Composting
 - Water Conservation
 - Rain Barrels
- + Environmental Advisory Commission

Contact Information

White Bear Lake City Hall
4701 Highway 61
White Bear Lake, MN 55110
Phone: (651) 429-8564
Fax: (651) 429-8500

Monday - Friday
8:00 a.m. - 4:30 p.m.

[VIEW FULL CONTACT DETAILS](#) →

Upcoming Events

Trash to Treasure Day
04/28/2018 (All day)

Cleanup Days
05/05/2018 - 7:00am

Yard & Garden

Adopt a Stormdrain
The Vadnais Lake Area Water Management Organization (VLAWMO) sta...
White Bear Lake and neighboring communities that live within their jurisd...
wetlands.

Rain Barrels
Using rainwater instead of the municipal water supply to water plants is...
barrels are used to collect and store rainwater from a building's roof for...
water flower gardens and trees during dry periods.

Water Conservation
The City of White Bear Lake and many other communities depend on gr...
demands on the water supply makes groundwater conservation and ma...
protecting the sustainability of the groundwater supply in the future.

Read on to learn about some of the City's water conservation initiatives
water use.

Yard Waste & Composting
Yard waste includes leaves, brush, grass clippings, and other plant mate...
as leaves, branches, weeds, and grass clippings in the trash.

Organic waste includes biodegradable items like food scraps and non-re...
composted.

1. Public Education and Outreach

2020 Activities

City Website

- Stormwater management
- Yard and garden



WHITE BEAR LAKE
a City of Lakes & Legends

Community Services Your Government

WHITE BEAR LAKE
a City of Lakes & Legends

Search

Community Services Your Government

ENVIRONMENT

- + Trash and Recycling
- + Water Resources
- + Natural Resources
- + Sustainability
- Yard & Garden

Adopt a Stormdrain

Composting

Water Conservation

Rain Barrels

Yard & Garden



Adopt a Stormdrain

The Vadnais Lake Area Water Management Organization (VLAWMO) started an Adopt a Drain program to enable residents of White Bear Lake and neighboring communities that live within their jurisdiction to help keep pollution out of our lakes and wetlands.

[Read more](#)



Rain Barrels

Using rainwater instead of the municipal water supply to water plants is an effective method of reducing summer water use. Rain barrels are used to collect and store rainwater from a building's roof for later use. The stored rainwater can be used to water flower gardens and trees during dry periods.

[Read more](#)



Water Conservation

The City of White Bear Lake and many other communities depend on groundwater for their drinking water supply. Increasing demands on the water supply makes groundwater conservation and management a top priority. Reducing water use is critical for protecting the sustainability of the groundwater supply in the future.

Read on to learn about some of the City's water conservation initiatives and what residents and businesses can do to reduce water use.

[Read more](#)



Yard Waste & Composting

Yard waste includes leaves, brush, grass clippings, and other plant material. State law prohibits the disposal of yard waste such as leaves, branches, weeds, and grass clippings in the trash.

Organic waste includes biodegradable items like food scraps and non-recyclable paper (tissues, paper towels, etc.) and can be composted.

[Read more](#)

ENGINEERING

Stormwater Management

- Surface Water Management Plan
- Stormwater Program
- Design Standards
- Illicit Discharge
- Watersheds

Street Improvement Program

- LED Street Lighting Project

Contact Information

White Bear Lake City Hall
4701 Highway 61
White Bear Lake, MN 55110
(651) 429-8531

Monday - Friday
8:00 a.m. - 4:30 p.m.

[VIEW FULL CONTACT DETAILS](#) →

Stormwater Management

The City of White Bear Lake is fortunate to have an abundance of surface water resources. In addition to our namesake lake, the City is dotted with many smaller lakes and wetlands. The City has adopted a number of policies and ordinances to protect the water quality of these water resources from polluted stormwater runoff and to prevent property damage due to flooding.



Ordinance

The City of White Bear Lake regulates stormwater runoff and non-stormwater discharges within its jurisdiction under Section 406 of the Municipal Code. This ordinance was established to prevent property damage due to stormwater flooding and to protect the quality of the surface water resources that receive stormwater runoff. The ordinance is consistent with the requirements of State statutes, State rules, and local watershed organization regulations.

Surface Water Management Plan

The City's Surface Water Management Plan (SWMP) identifies goals and policies concerning the implementation of water resource activities within the City. The plan fulfills the requirements of the Minnesota Pollution Control Agency, Met Council, and local watershed organizations.

Stormwater Program

The City's Storm Water Pollution Prevention Program (SWPPP) identifies goals and best management practices to reduce the discharge of pollutants into surface water resources from its storm sewer system.

Design Standards

The City of White Bear Lake developed Engineering Design Standards for Stormwater Management to provide specific guidelines to design professionals preparing construction documents for private land development projects and/or City capital improvement projects. The standards were written to meet the City's goals to preserve, protect, and manage its water resources as well as to meet federal, state, and watershed organization stormwater regulations.

Other Resources

MN Stormwater Manual - Stormwater design and construction guidance

MPCA Construction Stormwater Permit - Construction permit information

Erosion Prevention & Sediment Control - Homeowner fact sheet

MN Water - Let's Keep it Clean - Water friendly practices for residents

1. Public Education and Outreach

2020 Activities



Adopt a Storm Drain to Help Protect Lakes, Streams, and Wetlands

Adopt-a-Drain is a program that asks residents to protect nearby lakes, streams, and wetlands by "adopting" a storm drain near their home. Volunteers sweep leaves, trash, and other debris off their adopted drain and nearby paved surfaces to keep this material from washing down storm drains and into nearby waterbodies.

Sign up today to adopt a storm drain:

- 1** Sign up online at adopt-a-drain.org. Choose a storm drain near your home, work, or organization.
- 2** Keep your storm drain clear. Rain washes anything that's on streets and other paved surfaces down the storm drains and into lakes, streams, and wetlands. So sweep leaves, grass clippings and trash away from the drain surface year-round.
- 3** Report your work. Keep track of how much stuff you remove from around the storm drain and report online at adopt-a-drain.org. It takes less than five minutes, and helps us monitor the impact we're having!

Trash and Recycling Holiday Schedule

Trash and recycling will not be picked up on the following days:

New Year's Day	Labour Day
Memorial Day	Thanksgiving
Independence Day	Christmas Day

Pick up service will resume the day following a holiday and continue one day off the regular schedule through the end of the week. For example, Memorial Day falls on a Monday. Monday's pick up will move to Tuesday, Tuesday's pick up will move to Wednesday, etc.

10 | White Bear Lake Spring & Summer 2020



Ramsey County to provide free household hazardous waste collection in the City of White Bear Lake

Open to residents of Ramsey County, as well as residents of Anoka, Carver, Dakota, Hennepin, Scott and Washington counties.

Where: White Bear Lake Area High School - North Campus
(Bald Eagle Ave. and 12th St., White Bear Lake)

When: Friday, July 10 10am - 6pm Saturday, July 11 9am - 4pm
Friday, July 17 10am - 6pm Saturday, July 18 9am - 4pm
Friday, July 24 10am - 6pm Saturday, July 25 9am - 4pm
Friday, July 31 10am - 6pm

Bring items in your vehicle to the mobile collection site at the dates and times listed above. To practice safe social distancing, load items into your trunk or cargo bed. At the site, please stay in your vehicle while staff unloads the items for you.

Ramsey County offers a year-round collection site and several mobile sites in various locations throughout the season. For information on Ramsey County Household Hazardous Waste (HHW) collection sites and a detailed list of acceptable items, please visit RamseyRecycles.com/HHW or call 651-633 EASY (3279), answered 24/7.



Commonly Accepted HHW Items

- Automotive products, such as antifreeze, batteries, brake and transmission fluid, degreasers, fuel, motor oil, and used oil filters.
- Household products, including adhesives, aerosols, cleaners, fire extinguishers, fluorescent bulbs, rechargeable batteries, paint, pool chemicals, propane tanks, mercury thermometers, paint and paint thinners.
- Lawn care products, such as fertilizers, pesticides, poisons.
- Needles, lancets and empty syringes. Transport these items in a hard-sided plastic container with a screw on cap, labeled "sharps." You will be asked to place the container in the collection bin yourself.



Photo: Harvey and Janet Bartz

Spotlight on Sustainability

Seven years ago homeowners and nature lovers Harvey and Janet Bartz decided to install a buffer strip of native vegetation along their Heiner's Pond shoreline, which soon turned into a back yard full of native grasses and flowering plants. Beyond its visually stunning array of colors, the native prairie provides a multitude of benefits that promote the health of the planet. The deep-rooted plants help prevent erosion, reduce the runoff of harmful chemicals into waterways, and require little to no watering. The prairie also provides habitat for bees, birds, butterflies and other wildlife and the Bartz garden is no exception as hummingbirds, Swallowtail butterflies, and bumblebees all continue to frequent the late summer blooms.

The Bartz's were able to start their backyard transformation with a shoreline restoration grant from the watershed district in which they reside. There are four watershed districts in White Bear Lake and each provides a variety of resources, from reading material to cost-sharing grant opportunities, for those interested in starting their own native garden. Other resources the Bartz family has used and recommends to interested residents include Ramsey County and native plant supply companies, who can help with installation and maintenance. Inspiration can also be drawn from local prairies like that found at Tamarack Nature Center.

The Bartz family recommends that those looking to install a native prairie commit to the project to ensure its success. They used a portion of their grant funds to hire Prairie Restoration Inc. to install the vegetation along the shoreline and residents looking for lower maintenance can do the same. They expanded and have maintained the rest of the native prairie themselves and advise those looking to plant on their own to expect the work to include learning plant identification, weed control, seeding and transplanting of native species as needed, and an occasional mowing or controlled burn (if allowed) in early spring. The result of the work is more than a uniquely beautiful yard. It is as described by Harvey and Janet Bartz, "an opportunity to practice living regeneratively, in harmony with the natural world. Our grandchildren and all future generations will benefit from a healthier world in which to live."

Resources

For information on cost share grants, native plant nurseries, and ecological restoration installation and maintenance companies, visit whitebearlake.org and search "pollinators."



Submit your Sustainable Project

With each newsletter, the City spotlights a different business or residential sustainability project, which could include projects that conserve energy, use renewable energy, provide alternative transportation, treat stormwater, conserve drinking water, increase pollinator and wildlife habitat, or reduce waste. If you would like to see your project featured in an upcoming newsletter, please contact Ashton Miller, Planning Technician, at amiller@whitebearlake.org or 651-429-8561.

8 | White Bear Lake Fall & Winter 2020

2. Public Participation and Involvement

Summary of Program

- Provide at least one opportunity annually for the public to provide input on the SWPPP.
 - SWPPP public meeting
 - Website

Summary of Program

- Provide other opportunities for public participation and involvement
 - Surveys
 - Volunteer opportunities



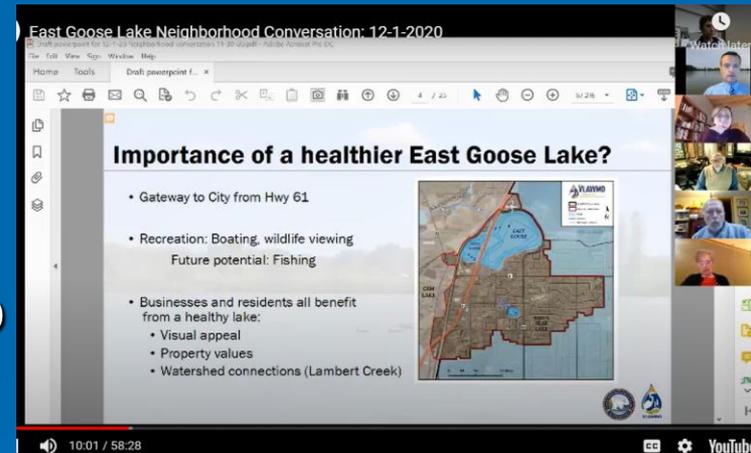
adopt-a-drain.org

2. Public Participation and Involvement

East Goose Adaptive Lake Management

Community Engagement

- Neighborhood conversation: December 1, 2020
- Community Survey: February - March 31, 2021
 - Notice to WB Press
 - VLAWMO and City Social Media
 - 101 responses
- Adaptive Lake Management Web Hub
 - [VLAWMO.org/eastgooseALM](https://vlawmo.org/eastgooseALM)



EAST GOOSE ADAPTIVE LAKE MANAGEMENT

2. Public Participation and Involvement

2020 Activities



*2021
Continue program as part of
street renovation projects*

Street Renovation Raingarden Program

- Voluntary cost share program through local Watershed Management Organizations
- City provided a curb cut at no cost to residents
- Three raingardens will be constructed this spring from the 2020 program

3. Illicit Discharge Detection and Elimination

Summary of Program

- Develop, implement, and enforce a program to detect and eliminate illicit discharges.

- Illicit discharge ordinance
- Train staff to identify and report illicit discharges
- Encourage residents to report suspicious activities
- Identify priority areas
- Procedure for locating and eliminating sources
- Procedures for responding to spills

Illicit Discharge = any discharge (accidental or on purpose) into a storm sewer system, river, stream, wetland, or lake, that is not composed entirely of stormwater



Dumping gas, oil, paints, cleaners

3. Illicit Discharge Detection and Elimination

Examples of illicit discharges



Concrete wash water



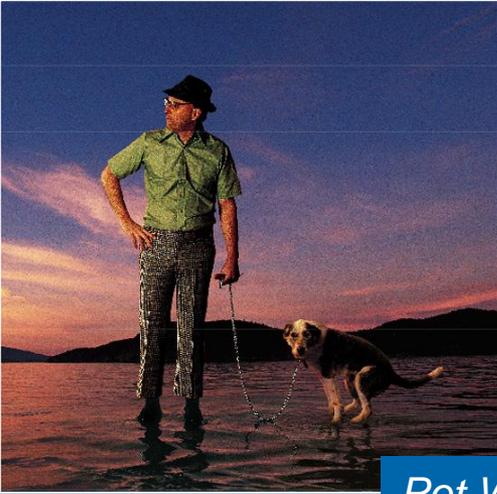
Sediment from construction sites



oil and fuel

3. Illicit Discharge Detection and Elimination

Examples of illicit discharges



**PET
GOTTA GO?**
If it's in our streets,
it's in our streams.

CleanWaterMN.org

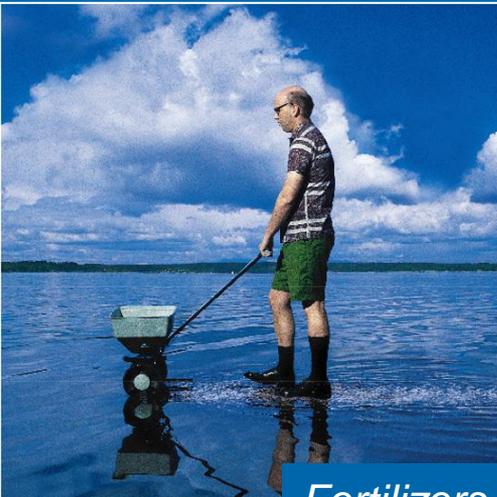
MINNESOTA WATER
LET'S KEEP IT CLEAN

Washington State Department of Ecology; King County, Washington; and the cities of Seattle, Tacoma and Bellevue.

Pet Waste



Grass Clippings



**USING
FERTILIZER?**
If it's in our streets,
it's in our streams.

CleanWaterMN.org

MINNESOTA WATER
LET'S KEEP IT CLEAN

Washington State Department of Ecology; King County, Washington; and the cities of Seattle, Tacoma and Bellevue.

Fertilizers, pesticides



Leaves

3. Illicit Discharge Detection and Elimination

2020 Activities

To report an
illicit discharge:

- Emergency: 911

- Non-emergency:
651-429-8531
(Engineering Dept.)
or on-line form

Website

- Illicit discharge page

The screenshot shows the White Bear Lake City website. The header includes the city name and logo, a search bar, and navigation links for Community, Services, and Your Government. The main content area is titled 'ENGINEERING' and features a sidebar menu with options like Stormwater Management, Surface Water Management Plan, Stormwater Program, Design Standards, Illicit Discharge, Watersheds, Street Improvement Program, and LED Street Lighting Project. The 'Illicit Discharge' option is highlighted. Below the menu is a 'Contact Information' section for the White Bear Lake City Hall, including the address, phone number, and hours. A 'VIEW FULL CONTACT DETAILS' link is provided. The main content area is titled 'Illicit Discharge Detection and Elimination' and contains a definition of an illicit discharge, a list of common illicit discharges, and a list of actions to help prevent them. A 'Report an Illicit Discharge' section is also visible at the bottom, with a 'Read more' link.

WHITE BEAR LAKE
a City of Lakes & Legends

Community Services Your Government

ENGINEERING

- Stormwater Management
 - Surface Water Management Plan
 - Stormwater Program
 - Design Standards
 - Illicit Discharge
 - Watersheds
- + Street Improvement Program
 - LED Street Lighting Project

Contact Information

White Bear Lake City Hall
4701 Highway 61
White Bear Lake, MN 55110
(651) 429-8531

Monday - Friday
8:00 a.m. - 4:30 p.m.

[VIEW FULL CONTACT DETAILS](#) →

Illicit Discharge Detection and Elimination

What is an illicit discharge?
The City's storm sewer system is designed to transport stormwater (rain and melting snow) to the nearest lake, stream, or wetland. Any waste or pollution that enters the storm sewer system will flow directly to the nearest waterbody without treatment and may cause serious environmental damage. Any discharge into a storm sewer system, ditch, river, stream, or waterbody that is not composed entirely of stormwater is called an illicit discharge.

Common Illicit Discharges
Fertilizer, grass, leaves, pesticides or pet waste
Gas, oil, paints and cleaners
Concrete wastewater and sediment from construction sites
Restaurant cooking oil
Commercial carwash wastewater
Installation of pipes that bypass sanitary connections or septic drain fields that produce a direct discharge to a waterbody

Illicit discharges may be the result of:

- Dumping gas, oil, paints, cleaners, concrete wastewater, sediment from construction sites, restaurant cooking oil and commercial carwash wastewater into the storm sewer system.
- Allowing fertilizer, grass, leaves, pesticides, or pet waste to wash into storm drains.
- Installing pipes that bypass sanitary connections or septic drain fields that produce a direct discharge to a waterbody.

How to Help

- Be alert! Report any suspicious discharges using the [online webform](#), or call the City's Engineering Department at (651) 429-8531. Anonymity will be respected.
- Clean up hazardous spills immediately.
- Pick up litter and trash near storm drains.
- Clean up pet waste and dispose in trash.
- Vegetate bare areas to reduce soil erosion.
- Do not blow leaves, grass clippings and mulch into the street. Sweep them up if they do land there.
- Recycle oil, antifreeze and batteries.*
- Bring household products, including paint, paint thinners, and solvents to a hazardous waste dump site.*

*For disposal options visit [RamseyRecycles.com](#) or call (651) 633-EASY (3279), answered 24/7.

City's role
Through its Stormwater Ordinance the City is authorized to regulate illicit discharge entering the City's storm drainage system by any user. City Public Works crews annually inspect the stormwater systems to check for illicit discharges or other problems. The ordinance contains enforcement provisions the City can take in the event an illicit discharge occurs.

Report an Illicit Discharge
Report an illicit discharge here. An illicit discharge is anything other than stormwater (rain and melting snow) that enters a storm sewer system, ditch, river, stream or other body of water. Any waste or pollution that enters a storm sewer system will flow directly to the nearest waterbody without treatment and may cause serious environmental damage. Read more to access an online webform for reporting issues.

[Read more](#)

4. Construction Site Runoff Control

Summary of Program

- Implement and enforce a construction site stormwater runoff control program that reduces pollutants in stormwater from construction activity.

- Erosion and sediment control ordinance
- Site plan review
- Procedures for reports of non-compliance
- Site inspections



4. Construction Site Runoff Control

2020 Activities



*Improper
sediment control*



*Proper sediment
control*

Inspections

- Building Department inspects commercial and residential construction sites
- Building inspectors are certified for erosion and sediment control inspections.

5. Post Construction Runoff Management

Summary of Program

Require permanent stormwater treatment facilities for new construction and reconstruction projects

- Stormwater management ordinance and engineering standards
- Site plan review
- Long-term maintenance agreement



Infiltration pipe – Birch Lake Blvd S.

5. Post Construction Runoff Management

2020 Activities



Polar Chevrolet iron-enhanced sand filter

Development Reviews

- Engineering Department reviews private development projects for compliance with the City's stormwater standards

6. Pollution Prevention/Good Housekeeping

Summary of Program

Implement an operations and maintenance program that prevents or reduces the discharge of pollutants from City facilities.

- City facilities (waste disposal, fleet maintenance, stockpiles)
- Landscape maintenance
- Street sweeping
- Winter street maintenance
- Stormwater treatment facilities inspection and maintenance
- Employee training



6. Pollution Prevention/Good Housekeeping

2020 Activities

The City's vacuum sweeper removes fine particles as well as leaves and larger debris to protect water resources.



Street sweeping

- Street Department swept all streets at least twice in the spring and fall
- Weekly sweeping in the Downtown area and around lake

6. Pollution Prevention/Good Housekeeping

2020 Activities



Calibrating spreaders

Winter street maintenance

- Spreaders are calibrated annually
- Public Works staff attends annual smart salt training

6. Pollution Prevention/Good Housekeeping

2020 Activities

Storm system maintenance (Sewer Department)

- Inspect all pond inlets and outlets before and after major rain events.
- Inspect swirl separators (13 total) once per year and clean as needed. Remove sediment as needed.
- Inspected underground infiltration systems and clean as needed.



6. Pollution Prevention/Good Housekeeping

2020 Activities

Storm system maintenance

- Contract for raingarden maintenance (6 total): weeding, mulching, inlet cleaning

4th and Johnson raingarden



6. Pollution Prevention/Good Housekeeping

2020 Activities – Cty Rd F Raingarden Retrofit



New curb cuts

*Cty Road F Raingarden Retrofit
Partially funded through a
VLAWMO cost share grant*



Old inlet



Old inlet - plugged

Storm system maintenance

- Operations and maintenance agreement with Ramsey County for six raingardens built in 2003.
- 2020 maintenance project retrofitted non-functioning inlets with curb cuts and pretreatment structures

Impaired Waters

Purpose: restore lakes that are impaired for specific pollutants (nutrients, sediment, chloride, bacteria, mercury, etc.)

- MPCA creates a list of impaired waters that do not meet water quality standards (303d list).
- Each impaired water requires an assessment to determine the sources of the impairment. This process is known as a total maximum daily load (TMDL) analysis.



nutrient impairment

not impaired

Impaired Waters

- A TMDL identifies the sources of a pollutant and establishes a maximum amount of a pollutant that a waterbody can receive and still meet water quality standards for that pollutant.
- Through the TMDL process, a waste load allocation (WLA) is developed that assigns allowable pollutant loadings from each contributor



Goose Lake: nutrient impairment

Impaired Waters

- WLAs are assigned to the City for the following waterbodies

Nutrient (phosphorus) impairment

- Bald Eagle Lake
- Goose Lake (East and West)
- Kohlman Lake
- Lake St. Croix
- Peltier/Centerville Lake
- Wilkinson Lake

Example: East Goose Lake
(watershed load only, does not include internal load)

City WLA: 64.7 lb/yr of phosphorus

Current loading: ~102.7 lb/yr

Percent reduction: 63%

Bacteria Impairment

- Rice Creek
- Lambert Creek

Chloride Impairment

- Kohlman Lake
- South Long Lake

Impaired Waters

- MS4s that are assigned a WLA for nutrients or total suspended solids must submit a compliance schedule for the MS4 General Permit 5-year cycle, and report pollutant reduction progress in the MS4 annual report to the MPCA.

Draft Compliance Schedule for East Goose Lake, Nov. 2020 – Nov. 2025

Compliance schedule Best Management Practices (BMPs) for Wasteload Allocations not being met (permit item 12.8)

Best Management Practice/Activity	BMP description (Select all that apply)	Anticipated number of practices (if applicable)	Expected Implementation Year(s)	Vadnais Lake Area WMO-Goose-(62-0034-00)-TP
BMP_improvement_enhancement_retrofitting	BMP improvement, Cty F raingarden curb cut retrofits	6	2020	X
Infiltrator	Private landowner curb-cut raingardens as part of street renovation projects	unknown - based on landowner interest	2021, 2022, 2024	X
	East Goose Lake Adaptive Lake Management Process - phase 1 Community Engagement	NA	2020, 2021	X
	East Goose Lake Adaptive Lake Management (ALM) process - ALM implementation plan	unknown until plan is complete (if approved by City Council & VLAWMO Board)	2022, 2023, 2024, 2025	X
Supplemental_employee_education_training	Staff training	NA	entire permit cycle	X
Supplemental_public_education_outreach	Presentations, Publications, Workshops/Clinics	NA	entire permit cycle	X
Supplemental_public_education_outreach	Adopt-a-Drain Program	unknown - based on public interest	entire permit cycle	X
	VLAWMO water quality BMP and native planting cost share grant projects	Unknown	entire permit cycle	X

Impaired Waters

MS4 General Permit Annual Report – Pollutant load reductions

Category 1: Summary of quantitative reductions (Annual Pollutant Load Reduction).							Optional	
TMDL project	Units	2015	2016	2017	2018	2019	Calculation method	Notes
Bald Eagle Lake - Phosphorus	pounds reduced				9.5 lbs	11.1 lbs (cumulative)	RG's: RCWD estimate. Infiltration pipes: MIDS calculator	2018: Approximately 1.6 lbs from 5 RG's and 7.9 lbs from underground infiltration. 2019: Assume an additional 1.6 lbs from the 5 raingardens constructed in 2019.
Kohlman Lake - Phosphorus	pounds reduced	29.1 lbs (cumulative, per growing season)	29.8 lbs (cumulative, per growing season)	28.8 lbs (cumulative, per growing season)	28.8 lbs (cumulative, per growing season)	31.4 lbs (cumulative, per growing season)	MIDS calculator	Provided by Heather Hlavaty, 4/13/2020. three new BMPs.

Example:

East Goose Lake

City WLA: 64.7 lb/yr of phosphorus

Current loading: ~102.7 lb/yr

Percent reduction: 63% (~38 lb/yr)

(watershed load only, does not include internal load)



Ex: Curb cut raingarden – 0.4 lb/yr reduction

Impaired Waters

- MS4s that are assigned a WLA for bacteria or chloride impairments have new MS4 General Permit requirements:
 - Ordinance requiring pet owners to remove and properly dispose of pet waste on City owned land.
 - Ordinance requiring proper salt storage at commercial, institutional, and industrial facilities.
 - Distribute educational materials on pet waste and salt use at least once per year.
 - Maintain a written or mapped inventory of potential areas and sources of bacteria and a plan to prioritize reduction activities.
 - Document the amount of deicer applied.
 - Conduct an annual assessment of winter maintenance operations and determine opportunities to reduce the amount of deicing salt.

CITY OF WHITE BEAR LAKE

MS4 GENERAL PERMIT & STORM WATER POLLUTION PREVENTION PROGRAM



Questions or comments?

website: [whitebearlake.org/contact us](http://whitebearlake.org/contact-us)

Connie Taillon

Email: ctailon@whitebearlake.org

Phone: 651-429-8587