

BC WORKS!

The City of Battle Creek's Department of Public Works Newsletter

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Contact us:

City of Battle Creek
Department of Public Works
150 S. Kendall St., Battle Creek, MI 49037
269-966-3507
<https://battlecreekmi.gov/publicworks>



City Turns Waste into "Gold"

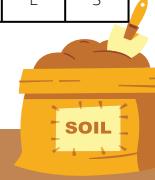
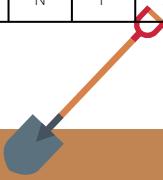
The City of Battle Creek's Wastewater Treatment Plant (WWTP) is conducting pilot studies to turn their process residuals into "Gold"...*Battle CreEQ Gold*, that is. The WWTP staff are testing if composting their biosolids (nutrient-rich organic materials, which remain following the treatment of domestic sewage at a wastewater treatment plant) is a feasible alternative to landfilling. The finished compost, named "Battle CreEQ Gold," has satisfied a number of criteria required by the State of Michigan to assure that the material is safe for use as compost.

From April to November, the treated (lime-stabilized) biosolids are applied to agricultural fields, but during the colder months when the ground is frozen, the residuals can not be land applied and are sent to the landfill. The city recognizes that landfilling is neither a sustainable nor beneficial use of these nutrient-rich residuals. Composting is being piloted as a sustainable alternative to this practice.

The WWTP team has been using the "static aerated pile" method of **CONTINUED**

BC Works Puzzle - Composting

B	Q	G	H	D	Z	C	H	I	P	K	R	S	Y	T	G	J	K	F	H
S	A	H	I	R	B	M	K	L	C	F	S	E	W	Q	Z	I	O	P	B
F	P	N	J	K	P	E	W	Q	X	Z	L	Q	A	I	P	T	S	U	L
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K	L	X	S	N	T	O	Q	P	H	E	A	T	C	E	Y	L	O	T	O
H	E	W	Q	U	A	M	G	A	U	C	H	F	O	B	V	X	V	Y	I
I	S	V	B	T	D	P	W	M	F	O	O	D	W	A	S	T	E	K	S
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A	Z	R	L	K	N	C	N	B	E	I	Y	D	I	T	K	E	M	Q	I
C	E	H	P	M	I	D	E	J	O	H	N	G	A	R	D	E	N	E	R
V	R	M	U	L	C	H	S	T	R	Q	P	H	U	I	T	R	A	T	L
M	R	I	Y	G	K	N	F	S	G	H	E	G	G	S	H	E	L	L	S



Compost Gardener
Banana Peel
Dirt
Egg Shells
Mulch
Apples
Nut Shells
Shovel
Food Waste
Fertilizer
Nutrients
Moisture
Leaves
Heat
Decomposition
Erosion
Topsoil
Organic
Bacteria

(CONTINUED From Page 1)

composting which mixes the biosolids with wood chips (from the city's compost facility) and then covers the windrowed mixture with a waterproof *Gore Tex* cover. Air is injected into the pile to maintain the temperature of the compost at around 170 Fahrenheit. The pile is turned after 28 days and then a second time 14 days later.

By achieving strict time, temperature, stability and maturity requirements of the State, these residuals are able to be classified as Class A Exceptional Quality (EQ) composted biosolids. These approved biosolids can be applied to flower beds, lawns and even vegetable gardens. The WWTP team has processed 12 piles of compost and is working on batch 13. Stay tuned for updates on this exciting project and how you can get some *Battle CreEQ Gold* for your lawn and garden!



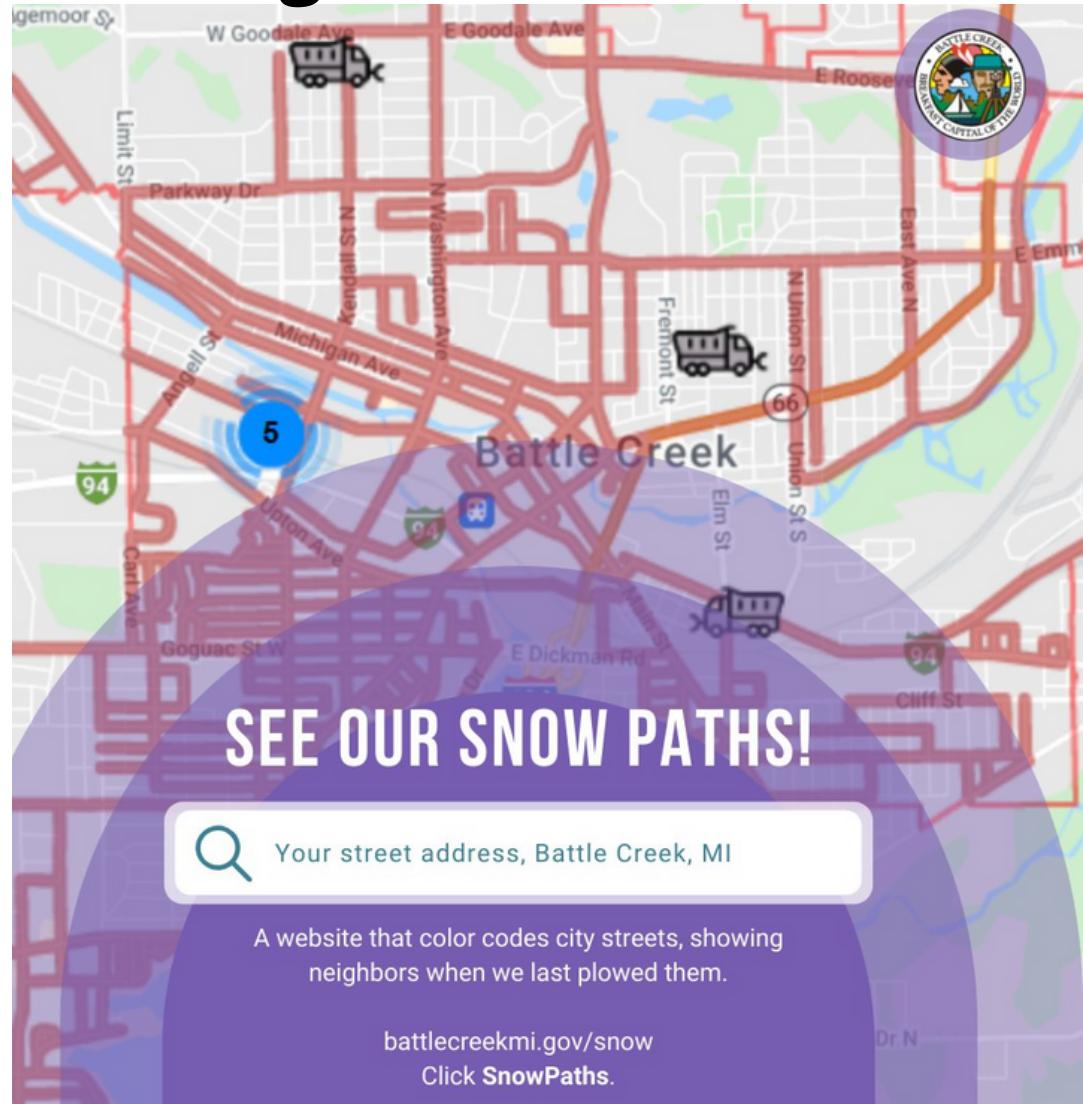
Snowplow Tracking with SnowPaths

City neighbors can follow along with the city snowplows this winter with a new web service called *SnowPaths*, a mapping system connected to Global Positioning Systems (GPS) on city plow trucks. Using color-coded lines, the map shows when city streets were last plowed, in four- to eight-hour increments. Neighbors can see streets plowed over a wide range of times ranging from less than four hours to more than 30 hours ago. The map does not show the plows in real time.

The site also offers a Priority tab, with a map that will show snow plowing priorities for city streets. Neighbors can zoom to street level by entering their street address – and must use “Battle Creek” or their zip code – or allow *SnowPaths* to use your device’s location.

The website is available at: battlecreekmi.gov/snow, where we share information about city snow operations. **Click the *SnowPaths* link.**

To reach our Field Services team at the Department of Public Works, please call 269-966-3507, or email PublicInput@battlecreekmi.gov.



A map of Battle Creek, Michigan, showing street networks and snow plow paths. The map uses color-coded lines to indicate when streets were last plowed: red for 0-4 hours, orange for 4-8 hours, and yellow for 8-12 hours. A purple circle highlights a priority area. Three plow trucks are shown on the map. A large purple callout bubble in the center says "SEE OUR SNOW PATHS!" with a magnifying glass icon and a text input field that says "Your street address, Battle Creek, MI". Below the callout, it says "A website that color codes city streets, showing neighbors when we last plowed them." and provides the website address "battlecreekmi.gov/snow" and the link "Click *SnowPaths*".



Also, please be sure that garbage and recycling containers are placed **out of the road** and up on the curb or in the grass on your collection day. Recycling and waste carts and containers placed in the streets create traffic hazards for residents and obstacles for snow plows during winter snow events.



Help Keep Streets Clear

As the seasons change, please remember to keep leaves, grass and other yard waste out of the streets. Yard waste can get washed down to the storm sewer inlets and clog the grates causing localized drainage issues. This yard debris will eventually get washed into our waterways carrying excess sediments and nutrients that degrade water quality. Please dispose of yard waste through the city's curbside yard waste collections or residents can dispose of their yard waste at Brice Pit, the city's compost facility located at 715 West River Road in Battle Creek.



To report any solid waste service issues to Republic Services, please call their local number at:
(269) 216-8008



Hybrid Patrol Cars Save Fuel

The City of Battle Creek is seeing some big cost and fuel savings with the new Police Department hybrid patrol cars. Each new Ford Hybrid Police Interceptor saves the city up to 900 gallons of fuel, annually. Hybrid technology is ideal for law enforcement because of the idle-time fuel required while officers are on patrol. When police vehicles are stationary, a conventional gasoline engine must run continuously to power emergency lighting, radios, computers and other on-board electrical equipment. The hybrid powertrain of the Police Interceptor allows the engine to shut off for extended periods, powering electrical equipment via its lithium-ion battery and helping achieve significant reductions in fuel usage and carbon emissions compared to the previous generation of Police Interceptor Utility vehicle. Battle Creek Police Department started cycling in Hybrid Interceptors in the 2020 model year and currently have 21 hybrids. They are expecting to have a full fleet of 32 hybrid patrol cars by the end of 2023.



Department of Public Works Events

The City of Battle Creek's Department of Public Works hosts a number of events each year to help City neighbors with recycling and to provide opportunities for stewardship and enjoyment of our local natural resources. Highlights of our recent events are presented below.

- **Earth Day Linear Path Clean-up**: 150 volunteers, 50 bags of trash removed
- **Children's Water Festival**: 19 classrooms and 530 students participated
- **Tree and native flower planting**: 31 trees and 750 native plugs planted
- **Rain Barrel Sale**: 120 rain barrels and 6 composters sold
- **Battle Creek Farmer's Market outreach**: 167 visitors over 3 weeks
- **Styrofoam collections (2 events)**: 246 drop offs and 1,809 lbs of Styrofoam collected
- **Scrap Tire collection**: 124 drop offs and 1,264 tires collected
- **In-river cleanup**: 20 volunteers, 10 bags of trash, 10 tires and 20 cubic ft. of trash collected from Battle Creek River
- **Kanoe the Kazoo paddling event**: 80 participants
- **Battle Creek Area Clean Water Partners Photo Contest**: 58 entries
- **2021 Krazy for the Kazoo Clean-up/Stewardship**: 90 volunteers, 60 bags of trash, 30 tires and 4 truck loads of invasive species removed, 30 native shrubs planted

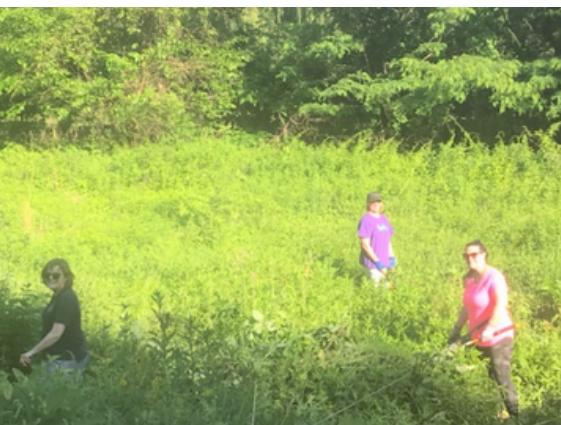


To learn more about City of Battle Creek events and volunteer opportunities, visit bcwater.org/events or contact Bessie Stears at: bestears@battlecreekmi.gov or (269) 966-3355, ext. 1889.

Thanks to our City of Battle Creek Volunteers!

The City of Battle Creek would like to say "THANK YOU" to all our wonderful volunteers who gave so generously of their time to make Battle Creek a great place to be over the last year. Our stewardship events are successful thanks to all the time and attention these individuals and groups provide. Together we were able to accomplish a lot!

To volunteer for upcoming events, contact Bessie at 269-966-3355, ext. 1889.



Thank you to all our volunteers for their time making Battle Creek a great place to live, work and play in 2022!



Proposed Roundabout at Hill Brady Road and Skyline Drive

A roundabout is being proposed for the intersection of Hill Brady Road and Skyline Drive in Battle Creek. The project will be paid for with Battle Creek Tax Increment Finance Authority and Air National Guard funding. Below are some Frequently Asked Questions regarding the roundabout.

What are the advantages of a roundabout at Hill Brady/Skyline?

Roundabout intersections are a growing trend that have demonstrated overall safety improvements, especially for pedestrians. While pedestrian volumes are small here, there is a nearby pedestrian trail along Hill Brady Road. Other advantages at the Hill Brady Road and Skyline Drive intersection are:

Traffic Safety - Slower vehicle speeds, as all movements would require drivers to yield to traffic in the roundabout.

Eliminates all 90-degree conflict points between vehicles - This eliminates the major cause of injuries at most conventional intersections.

Operational Performance – Roundabouts have lower overall delay than signalized intersections.

Reduces emissions - Eliminates vehicle idle time and delays.

Reduces operational costs - Would save ~\$5,000 per year in traffic signal maintenance.

How do I ask the City additional questions about this?

Call the City's Engineering Division, at **269-966-3343**. You can also email the City at PublicInput@battlecreekmi.gov.

How would this compare to the Sprinkle Road roundabouts in Kalamazoo at the I-94 interchange?

This roundabout shares some characteristics [JLV1] [TP2] with the Sprinkle Road roundabouts, such as multiple lanes through part of the circle. But the projected traffic volumes at this location are much less than at Sprinkle Road: an estimated 17,000 vehicles per day for this roundabout compared to more than 31,000 vehicles per day using the Sprinkle Road roundabouts.

How would this compare to the fountain roundabout in Marshall?

Strictly speaking, the Marshall "roundabout" is not a modern roundabout, but a traffic circle. Traffic circles have larger diameters than roundabouts and allow traffic to pass through at higher speeds. The higher speeds found in traffic circles are associated with more crashes and more severe crashes. The Marshall traffic circle is much larger than the proposed modern roundabout at Hill Brady and Skyline. The proposed Hill Brady/Skyline roundabout has a planned diameter of approximately 200 feet. The Marshall traffic circle's diameter is more than 300 feet, encouraging higher speeds. The Marshall traffic circle also allows pedestrians to cross into the center of that circle at four separate locations to visit the fountain, which causes two problems – drivers who fail to yield to pedestrians, causing a crash; and drivers who do yield, creating congestion at that location. The proposed design at Hill Brady/Skyline is not intended to attract nor allow pedestrians to cross to the center island.



City Hires Forestry Contractor



In the spring of 2022, the City of Battle Creek contracted with a forester to help manage the approximately 200 acres of city-owned forested parcels. The city has engaged with East Lansing based Natural Capital Forestry (NCF) and owner James Gray through a request for proposals. NCF has a unique approach to forest management with the goals of enhancing forest health along with providing educational outreach for the Battle Creek community. Mr. Gray has begun a targeted Forest Management Action Plan to evaluate and recommend actions for providing improvements to some of the city's larger forested parcels. The Plan will aid the city in obtaining grant funding for management of invasive plants, that can outcompete native species and reduce tree growth, and planting of desirable tree species. The Plan will also identify and select those trees that could be responsibly-harvested to promote overall forestry health and sustainability of these community assets for both economic and environmental value. Another goal of this program is to educate school students and other community groups on the value of our urban forests and proper long-term management.

The city's forested areas are environmentally valuable to our community, providing oxygen, wildlife habitat, improved air quality, climate resiliency, water conservation, and soil stabilization. Until recently these forested parcels have gone unmanaged. With proper management, these forests can be enhanced to minimize the introduction of invasive species and promote the growth of desired trees, creating a more biodiverse and healthy forest environment. More information on the status of the city's Forest Management Action Plan and forestry improvement efforts will be provided as the project advances.

Lead Service Line Replacements Continue

The City of Battle Creek's Engineering and Water Departments continue to work to replace lead service lines in the Battle Creek service area with the goal of replacing all lead sewer lines in the city by 2041. The state of Michigan requires communities to target 5% replacement of existing lead service lines each year to meet the target date. There are approximately 19,300 water services (lines that go from the water main into the home) in the city.

Please be assured that having lead service lines does not mean your water is unsafe. The City of Battle Creek applies a very effective corrosion-control treatment that reduces the risk of lead leaching into your water. In addition, the City of Battle Creek adheres to the standards and testing requirements in the Safe Drinking Water Act and by the Michigan Department of Environment, Great Lakes, and Energy (EGLE). Our water consistently tests at levels of lead well below the levels of concern.

So far this year, the city's Engineering contractor has completed 75 replacements with the goal of completing over 100 by year's end. Water Department staff have completed an additional 90 service replacements this year with the goal of 125 replacements by the end of the year. The Piper Park area of the city is the current focus of replacements. While Covid-related material shortages have slowed down the pace of work, the city is expecting to reach the 5% replacement number for 2022 required by the state.





Stop Flushing "Flushable" Wipes

The City of Battle Creek's sewer crews have been spending a lot of time on costly maintenance to remove "flushable" wipes from the city's sewer system. While these wipes are marketed as flushable, they do not break down like toilet paper when they get flushed. Instead, they accumulate in the pipes requiring sewer crews to physically remove them from the lift station pumps. In only six months (from January 1 to June 30 of 2022), **it cost the city over \$72,000 to remove wipes and other non-flushable material from clogged pumps.**



Municipalities around the globe are experiencing these same issues with sewer clogs caused by wipes and other non-flushable materials, creating a costly burden on budgets. As of July 2022, the State of Washington became the first state to require wipe manufacturers to label these products with a "Do not flush" symbol, in hopes of educating consumers on the proper disposal of these hygiene products.



Please remember that only human waste and toilet paper are meant to be flushed down the toilet. Avoid flushing any wipes, paper towels, napkins, dental floss, feminine hygiene products, food waste, fats and grease down the drains. These materials don't break down quickly and cause sewage backups in homes and businesses, infrastructure damage and sewage overflows resulting in environmental contamination. Thanks for yours - and our sewer crew's - help keeping the water flowing - in the right direction!