

GREEN STORMWATER INFRASTRUCTURE CAN BENEFIT CHANDLER PARK!

WHAT IS TRADITIONAL STORMWATER MANAGEMENT?

Stormwater runoff is rainfall or snowmelt that runs off the land into rivers and lakes. Traditional stormwater management focuses on conveying runoff quickly, through concrete pipes, to prevent flooding which allows more land to be inhabited and farmed. In Detroit, as in many larger cities, runoff drains to a combined sewer system that also conveys sanitary sewage to a wastewater treatment facility. During heavy rain events, the capacity of Detroit's Water Reclamation Facility (formerly the Wastewater Treatment Plant) can be exceeded which results in untreated and undertreated water discharging into the Rouge and Detroit Rivers. To resolve capacity issues, the Detroit Water and Sewerage Department (DWSD) constructed facilities to retain and partially treat wastewater during rain events. This construction was costly but necessary to comply with the State's discharge permit requirements.

CAN GREEN INFRASTRUCTURE IMPROVE HOW WE MANAGE STORMWATER?

Green stormwater infrastructure (GSI) is an approach to water management that protects, restores, or mimics the natural water cycle. These approaches allow for runoff to be managed where it lands, which reduces the volume needing treatment at the Water Reclamation Facility. In recent years, GSI approaches have been accepted by the state as a cost-effective way to reduce overflows from combined sewers while providing environmental benefits.

TYPES OF GREEN STORMWATER INFRASTRUCTURE

Some of the more common GSI features include rain gardens, bioswales, trees, detention ponds, wetlands, rain barrels and pervious pavements. These features allow runoff to soak into the ground, filter out pollutants, and recharge groundwater levels or collect runoff, which allows pollutants to settle out while the water evaporates back into the atmosphere.

ENVIRONMENTAL & COST BENEFITS OF GREEN STORMWATER INFRASTRUCTURE

When maintained properly, some GSI, like rain gardens, not only appeal to wildlife, but can be beautiful for us to enjoy as well. They provide habitat for desirable insects, birds, and small mammals, especially when native plants are used. Rain gardens installed in public areas, such as parks, provide us a place to relax and converse while enjoying colorful plants throughout the year. However, like any vegetation, they must be weeded and cared for. Once plants are established, watering is not necessary.



GSI can also reduce utility costs by limiting the amount of runoff needing to be treated at the Water Reclamation Facility. DWSD allows property owners to receive a discount on their water bill when they install GSI on their property. The amount of the discount depends on the amount of stormwater that is kept out of the sewers.

ABOUT THE CHANDLER PARK CONSERVANCY

The Chandler Park Conservancy (CPC) was created to ensure that Detroit's Chandler Park provides all forms of recreation for families. CPC is committed to Chandler Park being well-managed and safe. CPC also works at generating revenue for sustainability while keeping the park open for all. The vision for Chandler Park is a revitalized multi-facility recreation, conservation, and education campus on 200 acres, which, when completed, will be the first of its kind in Michigan. CPC provides for marketing, fundraising and programming in coordination with its partners. CPC organizes league play and regional sports tournaments and creates a fee structure that allows for community investment, but also accommodates everyone who wants to use the park regardless of income. CPC also created the Joan Gehrke Preservation Fund to provide maintenance and preservation of the amenities in Chandler Park.

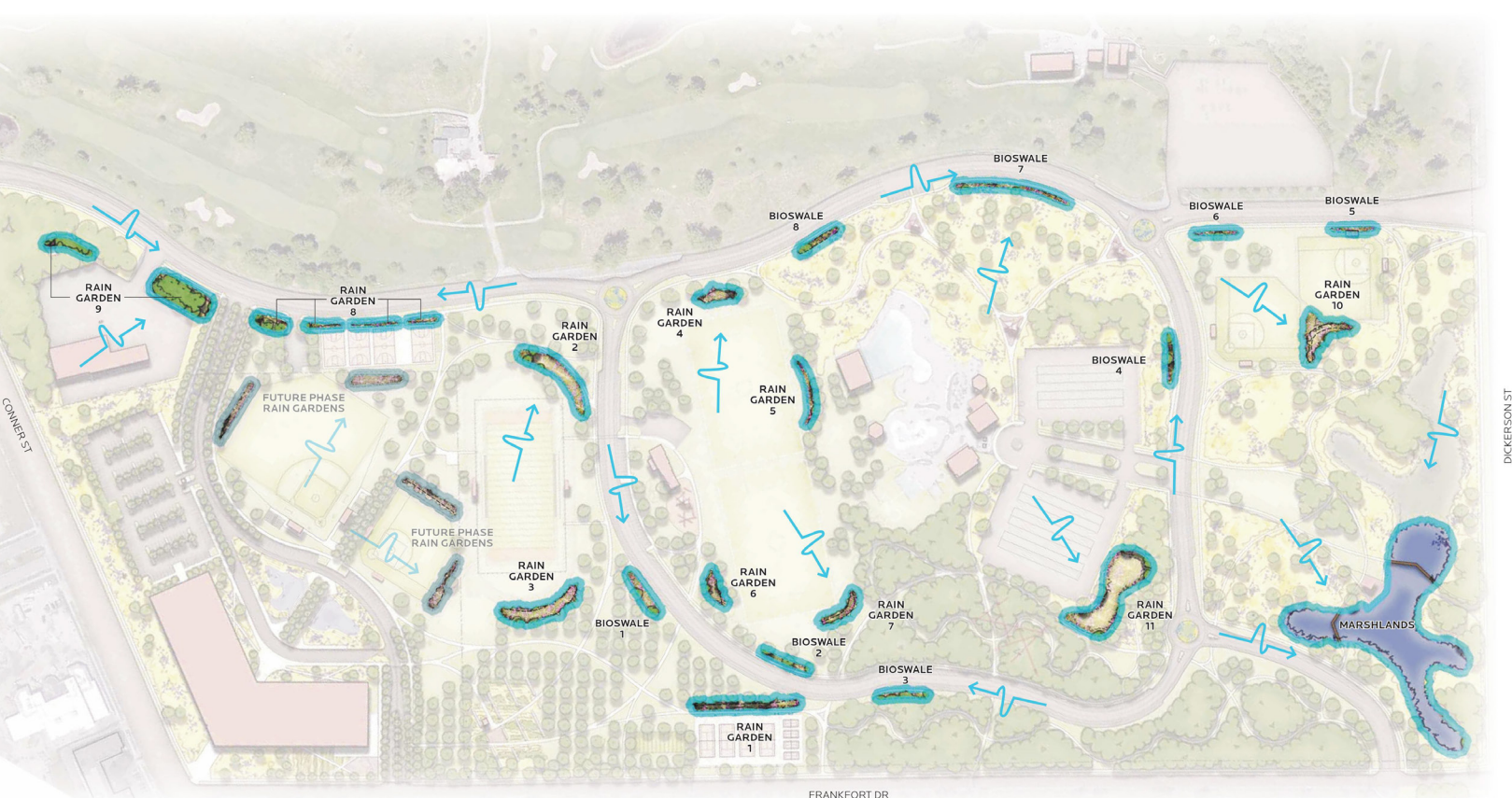


CHANDLER PARK STORMWATER MANAGEMENT DEMONSTRATION PROJECT

In addition to community improvement potential, Chandler Park provides great ecological improvement potential. The Chandler Park Stormwater Management Demonstration Project was developed as part of a Blue Ribbon Panel sponsored by Governor Snyder that detailed a conservation campus plan at Chandler Park. This plan for "Blue/Green Infrastructure" will allow Chandler Park to manage all of its stormwater on-site, as well as self-irrigate the golf course and grounds and includes:

- Bio-swales
- Tree plantings
- Pervious paving
- Wetland

Connected to DWSD's combined sewer system, stormwater runoff from this 100-acre park currently drains directly into the sewer and ultimately to the water treatment plant and the Detroit River. The new wetland marsh will hold 2.1 million gallons of water and have significant impact on the surrounding Chandler Park community and Detroit's eastern region, relieving strain on the sewer system, avoiding the costs of treatment at the water treatment plant, and lowering the water/sewage management fees to the Detroit Recreation Department.



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