

Providing Quality Engineering For Our Water Resources Since 2002

Client

Milwaukee County, Milwaukee, WI
 Architecture, Engineering and Environmental Services Division
 (SSE was a subconsultant to URS)
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Project

McKinley Beach Stormwater Project

Overview/Description

Stormwater Solutions Engineering, LLC contracted as a subconsultant to URS with Milwaukee County to assist in the design of a raingarden and underground stormwater exfiltration device at McKinley Beach, and create Operations and Maintenance Guidance for Park Staff use in maintaining the Biofiltration/raingarden and underground storage device.

Concerns/Challenges

- McKinley Beach had experienced poor water quality due to **stormwater runoff** and storm sewer discharging near to the beach area.
- Milwaukee County desired low-maintenance water quality treatment and maintenance guidance for County staff
- The stormwater treatment devices would need to be safe for public activity and use as little land space as possible to not diminish the function of the park and beach.

Actions Addressing Challenges

- SSE assisted in the design of an raingarden/biofiltration device with multiple cells. The raingarden used Wisconsin native landscaping for best survivability and low maintenance.
- SSE assisted URS in the design of an underground exfiltration device (collects storm water runoff in an underground pipe and slowly allows water to seep into subsoils through perforations in the pipe).
- Operation and Maintenance Guidance was prepared for the exfiltration device and raingarden/biofiltration. A laminated one-page, two-sided document was provided for County staff to be kept in vehicles for easy access.



Urban Runoff Pollutants Contaminated beach sands



Raingarden/biofilter Device During-Construction and Rain Event

"The O&M forms are working great! I use them when I do BMP inspections. They are well laid out and thorough. Very helpful!" (Milwaukee County Environmental Engineer)



Post-Construction Raingarden /Biofilter



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