

COUNTY OF MILWAUKEE
Inter-Office Communication

Date: February 17, 2023

To: Marcelia Nicholson, Chairwoman, Milwaukee County Board of Supervisors

From: Guy Smith, Executive Director, Milwaukee County Parks

Subject: Mill Pond Sediment Sampling

File Type: Informational Report

REQUEST

Sharing AECOM's *Sediment Sampling Results* report for the Mill Pond in Oak Creek Parkway.

POLICY

Specific Adopted Budget Amendment:	Capital Project WP69401
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BACKGROUND

Related File No's:	15-771 ; 22-391
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The Mill Pond and the Mill Pond dam are located within Oak Creek Parkway in South Milwaukee, Milwaukee County, Wisconsin, approximately 1 mile upstream of the mouth of the Oak Creek at Lake Michigan. In 2012, the WDNR conducted an inspection of the Mill Pond Dam, which identified deficiencies and structural issues related to the dam. The WDNR issued an order that included direction to complete sluice gate and masonry repairs to the dam. Several extensions have been granted to both secure funding and wait for [recommendations](#) related to the pond, dam, and dredging from SEWRPC as part of their [Restoration Plan for the Oak Creek Watershed](#) report; a project in which Milwaukee County was a primary stakeholder. The Milwaukee County Board adopted the Watershed Restoration Plan for the Oak Creek Watershed in March of 2022.

SEWRPC's *Restoration Plan for the Oak Creek Watershed* was published in December 2021. The SEWRPC Plan included five alternatives as potential solutions to address concerns and improve conditions at Mill Pond and the dam area. An initial step in evaluating the alternatives was to conduct sampling to characterize the sediments within Mill Pond.

Milwaukee County Parks contracted with AECOM to conduct sediment sampling activities throughout Mill Pond. The sampling activities were performed in July 2022. Five sediment borings were advanced throughout Mill Pond to depths of 6 to 12 feet below the sediment

surface. Samples from each location were submitted for laboratory analysis of various compounds as recommended by WDNR.

Results of the sampling indicated that sediments were impacted, and if removed or dredged from Mill Pond would require proper disposal offsite. Permitting would also be required for any dewatering activities. Next steps for Parks will include evaluating potential funding and grant opportunities to pursue one of the SEWRPC alternatives for Mill Pond and the dam. Related public engagement would be a part of any such project advancement.

Table 6.17
Mill Pond and Dam Cost Summary

Alternative	Description	Core Sampling (Number of Sample Locations) ^a	Construction with 35 Percent Contingency ^a	Ongoing Maintenance ^{a,b}	Total Present Worth Cost ^a
Alternative 1	Sluice Gate Repair ^c	\$14,000 (1)	\$329,000	\$199,000	\$542,000
Alternative 2A ^d	Partial Pond Restoration ^c	\$24,000 (2)	\$2,202,000	\$3,125,000	\$5,351,000
Alternative 2B ^e	Partial Pond Restoration and Fill ^c	\$24,000 (2)	\$1,147,000	\$3,144,000	\$4,315,000
Alternative 3	Full Pond Restoration ^c	\$49,000 (5)	\$6,897,000	\$5,464,000	\$12,410,000
Alternative 4	Bypass Channel, Dam Lowering, and Pond Restoration	\$49,000 (5)	\$7,658,000	\$2,624,000	\$10,331,000
Alternative 5A ^f	Dam Removal and Channel Restoration – Large Floodplain Habitat	\$49,000 (5)	\$11,816,000	\$61,000	\$11,926,000
Alternative 5B ^g	Dam Removal and Channel Restoration – Large Floodplain Habitat	\$49,000 (5)	\$7,796,000	\$61,000	\$7,906,000
Alternative 5C ^h	Dam Removal and Channel Restoration – Small Floodplain Habitat	\$49,000 (5)	\$4,662,000	\$61,000	\$4,772,000

^a All costs are in 2019 dollars

^b Present worth maintenance costs included dam inspections and dredging for a 50-year period for Alternatives 1, 2, 3, and 4, and vegetation maintenance for a 5-year period for Alternatives 2B, 4, and 5.

^c To improve safety, dam abutment extensions and an emergency spillway would add \$736,000 to the total present worth costs.

^d Alternative 2A includes the full amount of dredged sediment hauled off site.

^e Alternative 2B includes a portion of the dredged material used as fill in the Mill Pond northern lobe and restored with vegetative seeding, with the remaining dredged material hauled off site.

^f Alternative 5A has the full amount of material hauled off site, with no fill on site. This alternative will create a large floodplain habitat.

^g Alternative 5B allows a portion of the sediment to naturally erode downstream, a portion to be used as fill in the northern lobe fringe area, with the remaining amount hauled off site. This alternative will create a large floodplain habitat.

^h Alternative 5C allows a portion of the sediment to naturally erode downstream, a portion to be used as fill in the northern lobe fringe area, with the remaining amount hauled off site. This alternative will create a small floodplain habitat.

Source: SEWRPC

VIRTUAL MEETING INVITES

Tim Detzer, Milwaukee County Architecture & Engineering

Chris Kubacki, Milwaukee County Parks Engineer

PREPARED BY:

Sarah Toomsen, Manager of Planning & Development

APPROVED BY:

Guy Smith, Parks Executive Director *Guy Smith*

ATTACHMENTS:

A1 -Sediment Sampling Locations

A2 -Sediment Sampling Results – AECOM Report

cc: David Crowley, County Executive
Mary Jo Meyers, Chief of Staff, County Executive's Office
Sheldon Wasserman, Parks and Culture Chair, Supervisor District 3
Steven Shea, Parks and Culture Committee Vice-Chair, Supervisor District 8
Felesia Martin, Parks and Culture Committee Member, Supervisor District 7
Juan Miguel Martinez, Parks and Culture Committee Member, Supervisor District 12
Steve Taylor, Parks and Culture Committee Member, Supervisor District 17
Kelly Bablitch, Chief of Staff, Milwaukee County Board of Supervisors
Janelle M. Jensen, Legislative Services Division Manager, Office of the County Clerk
Aaron Hertzberg, Director, Department of Administrative Services
Joseph Lamers, Fiscal & Budget Director, DAS
Vince Masterson, Fiscal & Strategic Asset Coordinator, DAS
Pamela Bryant, Capital Finance Manager, Comptroller's Office
Justin Rodriguez, Capital Finance Analyst, Comptroller's Office
Kelsey Evans, Committee Coordinator, Office of the County Clerk
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Anthony Rux, Budget & Management Analyst, DAS-PSB