

## MEMORANDUM

**To:** MCWD Board of Managers

**From:** Tiffany Schaufler

**CC:** James Wisker

**Date:** November 16, 2015

**Re:** November 19, 2015 Board of Managers Meeting: Operations & Maintenance Manual and Capital Reinvestment Plan Update

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### **Purpose:**

At the November 19, 2015 Board of Managers meeting, staff will provide an update on the progress made to date on the Operations & Maintenance (O&M) Manual and the Capital Reinvestment Plan.

### **Background:**

In June 2015, the District contracted with Wenck Associates to update the District's O&M Manual and develop a Capital Reinvestment Plan. The current O&M Plan was developed by Wenck in 2000. The 2000 O&M Manual outlined the operations and maintenance requirements and responsibilities for the 32 capital projects the District had implemented at that time. Since the 2000 O&M Manual was developed, the District has implemented or plans to implement an additional 77 projects/infrastructure and has acquired over 25 properties through fee-title and easement. A list of all the capital projects and District infrastructure built to date and to be built over the next three years can be viewed in Attachment A.

Wenck's first task was to develop a series of standard O&M activities driven by project type. In total, Wenck has identified 32 basic O&M activities (Attachment B) that encompass all expected operation and maintenance needs for projects/infrastructure built to date. Wenck then determined the direct costs for each of the 32 O&M activities. Each project then had a cost estimate developed to determine the annual costs for each O&M activity associated with each project (see the Gray's Bay Dam example in Attachment C). This information was then used to compile a capital reinvestment plan and schedule which lists all of the District's projects/infrastructure built to date and to be built over the next three years (Attachment D). Long term, this capital reinvestment plan will dictate all the O&M activities and schedule their recurrence over a period

of 10 years. Using the capital reinvestment plan spreadsheet (Attachment D), annual costs can be tallied for the next 10 years to assist with long term budgeting.

Moving forward, when a new capital project is designed, the capital reinvestment plan will evaluate the maintenance requirements and their financial implications for the District's Project Maintenance & Land Management Program budget. Therefore, as each new capital project is being considered by the Board of Managers the Board will have a complete understanding of the initial project costs as well as the long-term maintenance costs necessary to protect the District's investment.

**Next Steps:**

Staff will facilitate a discussion with the Board of Managers at the November 19, 2015 Board Meeting on how the District can utilize the capital reinvestment plan to cyclically plan, budget and reinvest in the District's projects and infrastructure.

If there are questions in advance of the meeting, please contact Tiffany Schaufler at 952-641-4513 or [tschaufler@minnehahacreek.org](mailto:tschaufler@minnehahacreek.org).

**Attachments:**

- Attachment A: Project List
- Attachment B: O&M Activity List
- Attachment C: Annual Cost Estimate Example – Gray's Bay Dam
- Attachment D: Capital Reinvestment Plan – Schedule & Estimated Annual Cost for the Period of 2016-2025

## ATTACHMENT A

	<b>Project Name</b>	<b>Status</b>
1	325 Blake Rd Infiltration	2018
2	60th and 1st Storm Water Pond	Existing
3	Arden Park Stream Restoration	2017
4	Big Island Shoreline Restoration Phase 1	Existing
5	Browndale Dam Scour Control	Existing
6	Canoe Landings	Existing
7	Cedar Lake Whole Lake Alum Treatment	Existing
8	Cedar Meadows Wetland and Storm Water Pond	Existing
9	Centerview Park Shoreline Restoration	Existing
10	Chelsea Woods Channel Restoration	Existing
11	Co Rd 101 Grays Bay Causeway Vegetated Shoreline	2017
12	Cottageville Park Phase 1	2015
13	Cottageville Park Phase 2	2017
14	Cottageville Park Phase 3	2018
15	Judicial Ditch No. 2 (rural)	Existing
16	County Ditch No. 10 (rural)	Existing
17	County Ditch No. 14 (developed)	Existing
18	County Ditch No. 15 (mixed)	Existing
19	County Ditch No. 17 (urban)	Existing
20	County Ditch No. 27 (mixed)	Existing
21	County Ditch No. 29 (urban)	Existing
22	County Ditch No. 32 (urban)	Existing
23	County Road 26 Painter Creek Remeander	Existing
24	County Road 6 Storm Water Pond and Weir	Existing
25	Deer Hill Road Storm Water Pond and Weir	Existing
26	DL-3 Sand/Iron Filter	Existing
27	Excelsior Commons Point Shoreline Restoration	Existing
28	Excelsior Ponds Alum Treatment	Existing
29	Gideon Glen	Existing
30	Gleason Lake Curly Leaf Pond Weed Whole Lake Treatment	Existing
31	Gleason Lake Outlet	Existing
32	Gleason Lake Project Storm Sewer/Fish Barrier	Existing
33	Gleason Lake Storm Water Pond 1	Existing
34	Gleason Lake Storm Water Pond 2	Existing
35	Gleason Lake Storm Water Pond 3	Existing
36	Glenbrook Storm Water Pond	Existing
37	Gray's Bay Outlet Control Structure	Existing
38	Halsteds Bay Alum Injection	2018
39	Halsteds Bay Internal Load Management	2018
40	Hiawatha Golf Course	2016
41	Independence Wetland Restoration	Existing
42	Johnson/Rolling Hills Wetland Restoration	Existing
43	Knollwood Mall	2016
44	Lake Calhoun Whole Lake Alum Treatment	Existing
45	Lake Katrina Outlet	Existing
46	Lake Nokomis Outlet Weir	Existing
47	Lake Nokomis-Amelia Storm Water Pond	Existing
48	Lake Nokomis-Gateway Storm Water Pond	Existing
49	Lake Nokomis-Knoll Storm Water Pond	Existing
50	Lake Street Drainage Diversion	2017
51	Lakeside Storm Water Pond	Existing
52	Langdon Lake Whole Lake Alum Treatment	Existing

## ATTACHMENT A

	<b>Project Name</b>	<b>Status</b>
53	Long Lake Creek Channel Restoration	2017
54	Long Lake Lagoon Restoration	2015
55	Long Lake Park Primary Storm Water Pond	Existing
56	Long Lake Park Secondary Storm Water Pond	Existing
57	Long Lake Park Shoreline Restoration	Existing
58	Long Lake Whole Lake Alum Treatment	Existing
59	MCWD Office Storm Water Pond	Existing
60	Meadowbrook Golf Course	2016
61	Meadowbrook to Cedar Trail Connection	2018
62	Methodist Hospital Creek Remeander	Existing
63	Minnehaha Creek Channel Improvements Grays Bay to Burwell House	Existing
64	Minnehaha Creek Channel Improvements Meadowbrook Golf Course	Existing
65	Minnehaha Creek Channel Improvements W44th St to Hwy 100	Existing
66	Minnehaha Creek Greenway Trails	2017
67	Minnehaha Creek Headwaters Shoreline Restoration	Existing
68	Minnehaha Creek Reach 14 Stream Bank Restoration	Existing
69	Minnehaha Creek Reach 20 Remeander	Existing
70	Minnehaha Creek Reach 8 Streambank Improvements	Existing
71	Minnehaha Gorge Restoration-Phase 1	Existing
72	Minnehaha Gorge Restoration-Phase 2	Existing
73	Minnehaha Gorge Phase 3	Existing
74	Minnehaha Gorge Flood Repairs	2016
75	Mooney Lake Emergency Pumping Infrastructure	Existing
76	Mound Downtown Redevelopment	Existing
77	Old Orchard Park Shoreline Restoration	Existing
78	Painter Creek Channel Cleanout Co Rd 6 Orono	Existing
79	Painter Creek Channel Restoration	2017
80	Painter Creek Wetland Restoration (Potato)	2017
81	Painter Creek Wetland Restoration (SOBI)	2018
82	Painter Drive Fish Barrier	Existing
83	Painter Marsh Channel Cleanout	Existing
84	Painter Marsh Sedimentation Pond and Outlet	Existing
85	Painter Marsh Weir (Pond 937)	Existing
86	Pamela Park Storm Water Ponds	Existing
87	Parley Lake Internal Load Management	2017
88	Powell Road Storm Water Diversion	2015
89	Powell-Meadowbrook Storm Water	2016
90	Reach 20 Boardwalk	Existing
91	Reach 20 Bridges	Existing
92	Reach 20 Channel	Existing
93	Reach 20 Platform	Existing
94	Reach 20 Storm Sewer	Existing
95	Reach 20 Trail	Existing
96	Reach 20 Wet Detention Pond	Existing
97	Reach 20 Wetlands and Buffers	Existing
98	Saunders Rain Gardens	Existing
99	Six Mile Marsh Infiltration SMC-55	2017
100	Six Mile Marsh Prairie Restoration	Existing
101	South Katrina Storm Water Pond and Weir	Existing
102	Spring Peeper Meadow	Existing
103	Steiger Wetland Inflow Wet Detention Pond	Existing
104	Steiger Wetland Restoration	Existing

## ATTACHMENT A

	<b>Project Name</b>	<b>Status</b>
105	SW Calhoun Storm Water Ponds	Existing
106	Swan Lake Storm Water Pond	Existing
107	Taft-Legion Lake Project	2014-2015
108	Tanager Bridge Shoreline Restoration	Existing
109	Twin Lakes Park Storm Water Pond	Existing

## Attachment B - Basic O&M Activities by Project Type

<u>Type</u>	<u>O&amp;M Attributes</u>	<u>Type</u>	<u>O&amp;M Attributes</u>
1	<b>Alum Injection</b> Pumps, Piping and Controls Buildings and Grounds Mowing, Landscaping, Erosion Annual Startup/Shutdown Inspections/Operations Chemical Monitoring/Delivery Routine Minor Maintenance Equipment Replacement	17	<b>Porous Pavers</b> annual inspection pressure washing replacement of sand filler
2	<b>Bank Stabilization</b> Inspections vegetation maintenance/replacement minor repairs	18	<b>Pump/Lift Station</b> annual inspection confined space entry pull/store pumps power install/test pumps
3	<b>Bridge</b> annual inspection structural rating	19	<b>Rain Garden</b> annual inspection annual vegetation maintenance/replanting replacement of filter media and vegetation
4	<b>Buffer</b> annual inspection Vegetation Maintenance/Replacement Minor Repairs	20	<b>Small Site Riprap</b> annual inspection rock placement or repositioning (5-year cycle) additional riprap (5-year cycle) replacement of filter media and vegetation (5-year cycle)
5	<b>Channel Relocation</b> annual inspection Vegetation Maintenance/Replacement Minor Repairs	21	<b>Iron-Sand Filter</b> annual inspection confined space entry replacement of filter media and vegetation
6	<b>County/Judicial Ditch</b> annual ditch inspection removal of drainage obstructions erosion repairs Vegetation Maintenance/Replacement	22	<b>Sedimentation Basin</b> annual inspection periodic sediment testing and removal
7	<b>Elevated Trail</b> annual visual inspection of load stress, deformation, damage application of stain and sealers as needed repair damaged split or cracked members and decking	23	<b>Shoreline Stabilization</b> annual inspection vegetation maintenance/replacement (5-year cycle) minor repairs (5-year cycle)
		24	<b>Storm Sewer</b> annual inspection of inlets/outlets confined space entry

## Attachment B - Basic O&M Activities by Project Type

<u>Type</u>	<u>O&amp;M Attributes</u>
8	<b>Fence</b> annual inspection for damage, repair as needed
*9	<b>Fish Screen/Barrier</b> annual inspection/debris removal confined space entry if subsurface rough fish removal
10	<b>Grade Control</b> annual visual inspection for damage/erosion repair as needed
11A	<b>Hydraulic Structure (confined)</b> annual confined space entry inspections removal of debris, sediment, foreign objects document wear, damage, cracking etc
11B	<b>Hydraulic Structure (not confined)</b> inspection, removal of debris, sediment and foreign objects document wear, damage, cracking etc
12A	<b>Infiltration Basin (confined)</b> annual confined space entry inspections annual inspection for sediment accumulation/clogging confined space entry if subsurface periodically remove sediment accumulations document damage, erosion etc
12B	<b>Infiltration Basin (not confined)</b> annual inspection for sediment accumulation/clogging confined space entry if subsurface periodically remove sediment accumulations document damage, erosion etc
13	<b>Lake Restoration (whole lake alum treatment)</b> review annually with WQ staff to assess performance
*14	<b>Dedicated Monitoring Station</b> inspect early spring for erosion, damage, vandalism affect repairs as needed pull/install equipment annually calibrate meters, probes and perform mfg recomb maint on equip annually
15	<b>Polymer/Floc System Maintained by Others</b> annual inspection review annual reports document annual performance recommendations report
16	<b>Porous Pavement</b> annual inspection pressure washing

<u>Type</u>	<u>O&amp;M Attributes</u>
25	<b>Trails</b> annual inspection periodic replacement of lost aggregate periodic resurfacing periodic restriping
26	<b>Sub-Drains</b> annual inspections for blockage periodic jetting
27	<b>Terrestrial Vegetation Management</b> annual inspections herbicide treatment, reseeding, replanting (5-year cycle)
28	<b>Water Access</b> annual inspections annual removal/installation of structures
29	<b>Water Level Control Structure</b> annual inspection confined space entry annual removal of debris, sediment, blockages
30	<b>Wet Detention Pond</b> annual inspection semi-annual sediment surveys/sampling/testing periodic sediment removal and disposal vegetation maintenance/replacement
31	<b>Wetland Restoration</b> annual inspection annual vegetation monitoring, mapping and report annual herbicide treatment, reseeding, replanting
32	<b>New Whole Lake Alum Treatment</b> annual WQ monitoring and report periodic redosing

**ATTACHMENT C: Example Use of O&M Cost Estimate Templates - Grays Bay Outlet Control Structure**

O&M Activity	O&M Attributes	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
2	Bank Stabilization	inspections	\$0	\$375	\$0	\$375	\$0	\$375	\$0	\$375	\$0	\$375
		veg. maint.	\$0	\$0	\$4,000	\$0	\$0	\$4,000	\$0	\$4,000	\$0	\$5,130
3	Bridge	inspections	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		structural rating	\$0	\$0	\$0	\$0	\$740	\$0	\$0	\$0	\$0	\$740
		wood treatment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,000
		minor repairs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,000
7	Elevated Trail	others resp	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
8	Fence	minor repairs	\$0	\$0	\$500	\$0	\$0	\$0	\$500	\$0	\$0	
10	Grade Control	inspections	\$0	\$0	\$500	\$0	\$0	\$0	\$500	\$0	\$0	
11A	Hydraulic Structure	inspections	\$0	\$700	\$0	\$700	\$0	\$700	\$0	\$700	\$0	\$700
		seals,gaskets, mech	\$0	\$10,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		Entry	\$0	\$2,000	\$0	\$2,000	\$0	\$2,000	\$0	\$2,000	\$0	\$2,000
		Debris removal	\$0	\$300	\$0	\$300	\$0	\$300	\$0	\$300	\$0	\$300
		remove logs*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		install logs*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
20	Small Site Riprap	rock positioning	\$0	\$0	\$0	\$0	\$5,000	\$0	\$0	\$0	\$0	\$5,000
		add rock	\$0	\$0	\$0	\$0	\$1,250	\$0	\$0	\$0	\$0	\$1,250
29	WL Control Structure	staining/painting	\$0	\$0	\$0	\$0	\$3,000	\$0	\$0	\$0	\$0	
<b>Annual Total:</b>		<b>\$0</b>	<b>\$13,375</b>	<b>\$5,000</b>	<b>\$3,375</b>	<b>\$9,990</b>	<b>\$7,375</b>	<b>\$0</b>	<b>\$8,375</b>	<b>\$0</b>	<b>\$23,495</b>	

\* City of Minnetonka historically performs at no charge.



**ATTACHMENT D: MCWD Capital Reinvestment Plan: Schedule and Estimated Annual Cost for Period 2016 - 2025**

Project ID	Description	2016		2017		2018		2019		2020		2021		2022		2023		2024		2025		Annualized Costs		
		General O&M Activities	Specific Activities	Costs	Specific Activities	Costs	Specific Activities	Costs	Specific Activities	Costs	Specific Activities	Costs	Specific Activities	Costs	Specific Activities	Costs	Specific Activities	Costs	Specific Activities	Costs				
1	325 Blake Rd Infiltration	2,4,11B,12B,14,20,21,22,24,25,26,27		\$0		\$0	11B,14	\$5,083	11B,14	\$9,708	11B,14	\$5,083	11B,14	\$9,708	4,11B,12B,14,20,22,25,26	\$21,243	11B,14	\$9,708	11B,14,21	\$84,333	2,4,11B,14,27	\$9,958	\$15,482	
2	60th and 1st Storm Water Pond	4,8,11A,18,24,27,30		\$0		\$0		\$6,500		\$0		\$0										\$136,500	\$14,300	
3	Arden Park Stream Restoration	2,4,5,19,20,25,27,29		\$0		\$0	29	\$375	2,19,29	\$375	2,19,29	\$1,150	2,19,29	\$1,150	2,4,19,20,25,27,29	\$6,120	19,25,29	\$1,025	19,25,29	\$1,025		\$1,025	\$1,225	
4	Big Island Shoreline Restoration Phase 1	2,20,23,27	2,20,23,27	\$9,263		\$0		\$0		\$0		\$0		2,20,23,27	\$0		\$0					\$0	\$1,860	
5	Brownie Dam Scour Control	11,20		\$125	11	\$125	11	\$125	11,20	\$125	11,20	\$1,035	11	\$125	11	\$125	11	\$125	11,20	\$125		\$1,035	\$907	
6	Canoe Landings	2,4,20,27,28		\$0		\$0		\$0		\$0		\$0										\$0	\$0	
7	Cedar Lake Whole Lake Alum Treatment	13		\$1,000		\$0		\$0		\$0		\$0		\$0								\$0	\$34,000	
8	Cedar Meadows Wetland and Storm Water Pond	4,9,11B,24,25,27,29,31	4,11B,27,30	\$17,725	30	\$130,000	9,11B	\$2,875	11B	\$125	9,11B,30	\$8,375	4,11B,27,29	\$14,225	9,11B	\$338,000	\$125	9,11B,30	\$5,625	9,11B,30	\$130,125	11B	\$125	\$30,933
9	Centerview Park Shoreline Restoration	20,23,27	20,23,27	\$5,238		\$0		\$188	20,23	\$188	20,23	\$5,050	23	\$188	20,23	\$23					\$188	20,27	\$5,050	\$1,609
10	Chelsea Woods Channel Restoration	2,5,10,20,27		\$4,375		\$0		\$375		\$0		\$0		\$0								\$375	\$2,5	
11	Co Rd 101 Grays Bay Causeway Vegetated Shoreline	4,7,8,20,23,24,25,27		\$0		\$0		\$0		\$0		\$0		\$0								\$0	\$2,500	
12	Cottageville Park Phase 1	2,4,11B-12A,21,24,27	11B,12A,21,25	\$500		\$3,250	2,11B,12A,21,25	\$875	11B,12A,21,25	\$6,352	2,11B,12A,21,25	\$2,525	2,4,11B,12A,21,25,27	\$37,045	2,11B,12A,21,25	\$875	11B,12A,21,25	\$88,854	2,11B,12A,21,25	\$875	11B,12A,21,25	\$2,150	\$14,300	
13	Cottageville Park Phase 2	2,4,17,19,20,25,27		\$0		\$0		\$1,025	17,19	\$1,025	17,19	\$650	2,4,17,19,20,27	\$36,900	17,19	\$650	2,17,19	\$650				\$1,025	\$650	
14	Cottageville Park Phase 3	2,4,17,19,20,25,27,28		\$0		\$0		\$0		\$0		\$0		\$0								\$0	\$3,203	
15	County Ditch No. 2 (rural)	6		\$0		\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	\$4,380	
16	County Ditch No. 10 (rural)	6		\$0		\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	\$4,380	
17	County Ditch No. 14 (developed)	6		\$0		\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	\$4,380	
18	County Ditch No. 15 (mixed)	6		\$0		\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	\$4,380	
19	County Ditch No. 17 (urban)	6		\$0		\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	\$4,380	
20	County Ditch No. 27 (mixed)	6		\$0		\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	6	\$4,000	\$4,380	
21	County Ditch No. 29 (urban)	6		\$0		\$0		\$0		\$0		\$0		\$0								\$0	\$0	
22	County Ditch No. 32 (urban)	6		\$0		\$0		\$0		\$0		\$0		\$0								\$0	\$0	
23	County Road 26 Painter Creek Remeander	4,5,11B,27,29,31	11B,31	\$1,325	4,5,11B,27,29	\$35,105	11B,27,31	\$1,825	11B,27,31	\$1,825	11B,27,31	\$1,825	11B,27,31	\$1,825	4,11B,27,31	\$13,425	11B,27,31	\$1,825	11B,27,31	\$1,825	11B,27,31	\$1,825	\$1,825	\$6,263
24	County Road 6 Storm Water Pond and Weir	4,8-9,11B,20,27,29,30	11B,27	\$625	4,8,9,11B,20,27	\$20,275	11B,27	\$625	11B,27,30	\$6,274	11B,27,30	\$136,125	11B,27	\$625	4,8,9,11B,20,27	\$20,275	27,30	\$625	11B,27,30	\$6,149	27,30	\$500	\$5,625	\$19,710
25	Deer Hill Road Storm Water Pond and Weir	4,8-9,11B,20,27,29,30	11B,27	\$625	4,8,9,11B,20,27	\$20,275	11B,27	\$625	11B,27,30	\$6,274	11B,27,30	\$136,125	11B,27	\$625	4,8,9,11B,20,27	\$20,275	27,30	\$625	11B,27,30	\$6,149	27,30	\$500	\$5,625	\$19,710
26	DL-3 Sand/Iron Filter	4,14,21,24,26,27	14,21,26	\$7,208	14,21,26,27	\$5,583	14,21,26,27	\$19,308	14,21,26,27	\$7,708	14,21,26,27	\$92,458	14,21,26,27	\$5,583	14,21,26,27	\$10,608	14,21,26,27	\$17,183	14,21,26,27	\$7,708	14,21,26,27	\$5,583	\$17,893	
27	Excelsior Commons Point Shoreline Restoration	16,20,23,25,27	16,23	\$438	16,20,23	\$10,200	16,23	\$438	16	\$250	16,23	\$438	16	\$250	16,20,23	\$10,200	16	\$250	16,23	\$438	16	\$250	\$2,315	
28	Excelsior Ponds Alum Treatment	13		\$0		\$0		\$0		\$0		\$0		\$0								\$0	\$0	
29	Gideon Glen	4,25,27,31	31	\$0	31	\$0	31	\$0	31	\$0	4,27,31	\$0	31	\$0	31	\$0	31	\$0	4,27,31	\$0	31	\$0	\$0	
30	Gleason Lake Curly Leaf Pond Weed Whole Lake Treatment	13		\$0		\$0		\$0		\$0		\$0		\$0								\$0	\$0	
31	Gleason Lake Outlet	10,11B,20,29	11B,29	\$500	11B,29	\$500	11B,29	\$500	11B,29	\$500	10,11B,20,29	\$4,750	11B,29	\$500	11B,29	\$500	11B,29	\$500	10,11B,20,29	\$4,750	11B,29	\$500	\$1,350	
32	Gleason Lake Project Storm Sewer/Fish Barrier	9,24		\$0		\$0		\$0		\$0		\$0		\$0								\$0	\$0	
33	Gleason Lake Storm Water Pond 1	5,9,11B,29-30	11B,29	\$500	11B,29	\$500	11B,29,30	\$6,000	11B,29	\$500	11B,29	\$500	11B,29	\$500	11B,29	\$500	11B,29	\$500	5,9,11B,29	\$30,667	11B,29	\$500	\$19,380	
34	Gleason Lake Storm Water Pond 2	30		\$0		\$0		\$5,500	30	\$5,500	30	\$3,000	30	\$0	30	\$5,500	30	\$0	30	\$0	30	\$5,500	\$1,950	
35	Gleason Lake Storm Water Pond 3	30		\$0		\$0		\$0	30	\$0	30	\$3,000	30	\$0	30	\$0	30	\$0	30	\$0	30	\$5,500	\$300	
36	Glenbrook Storm Water Pond	4,27,30		\$0		\$0		\$5,500	30	\$5,500	30	\$0	30	\$5,500	30	\$0	30	\$0	30	\$0	30	\$5,500	\$1,650	
37	Gray's Bay Outlet Control Structure	2-3,7-11A,14,20,29		\$0	2,11A	\$13,375	2,8,10	\$5,000	2,11A	\$3,375	3,20,29	\$9,990	2,11A	\$7,375	2,8,10,11A	\$8,375	2,11A	\$5,000	2,3,7-11A,20	\$23,495		\$0	\$7,099	
38	Halsted Bay Alum Injection	1,4,8,11B,14,27		\$0		\$0		\$0	1,11B,14,27	\$135,233	1,11B,14,27	\$135,233	1,11B,14,27	\$135,233	1,11B,14,27	\$135,233	1,11B,14,27	\$135,233	1,11B,14,27	\$135,233	1,11B,14,27	\$135,233	\$95,873	
39	Halsted Bay Internal Load Management	32		\$0		\$0		\$0	32	\$500	32	\$500	32	\$500	32	\$500	32	\$500	32	\$500	32	\$500	\$350	
40	Hiawatha Golf Course	4,11B,27,30,31	11B	\$125	11B	\$3,625	11B,30	\$1,325	11B,30	\$7,450	11B,30,31	\$4,825	11B,30,31	\$4,825	11B,30,31	\$6,325	11B,30,31	\$6,325	11B,30,31	\$6,325	11B,30,31	\$4,825	\$2,995	
41	Independence Wetland Restoration	31		\$1,200	31	\$1,200	31	\$1,200	31	\$1,200	31	\$1,200	31	\$1,200	31	\$1,200	31	\$1,200	31	\$1,200	31	\$1,200	\$6,200	
42	Johnson/Rolling Hills Wetland Restoration	4,27,31	27,31	\$1,700	27,31	\$1,700	4,27,31	\$18,300	27,31	\$1,700	27,31	\$1,700	27,31	\$1,700	4,27,31	\$18,300	27,31	\$1,700	4,27,31	\$18,300	27,31	\$1,700	\$5,020	
43	Knollwood Mall	2,4,7,11A,12A,12B,17,18,20,22,24,25,27,28	13	\$0	2,11A,11B,12B,18,25	\$12,369	11A,11B,12B,18,25	\$16,769	2,11A,11B,12B,18,25	\$12,494	11A,11B,12B,18,25	\$20,769	2,4,11A,11B,12B,18,20,25,27	\$41,744	11A,11B,12B,18,25	\$23,469	2,11A,11B,12B,18,25	\$12,994	11A,11B,12B,18,25	\$20,769	2,11A,11B,12B,18,25	\$12,994	11A,11B,12B,18,25	\$17,437
44	Lake Calhoun Whole Lake Alum Treatment	13		\$1,000		\$0		\$0		\$0		\$0		\$0								\$0	\$39,012	
45	Lake Katrina Outlet	11B,25		\$125	11B	\$1,325	11B	\$1,325	11B	\$1,325	11B	\$1,325	11B	\$1,325	11B	\$1,325	11B	\$1,325	11B	\$1,325	11B	\$1,325	\$2,125	
46	Lake Nokomis Outlet Weir	11B,29		\$125	11B,29	\$2,625	11B,29	\$125	11B,29	\$2,625	11B,29	\$2,625	11B,29	\$2,625	11B,29	\$2,625	11B,29	\$2,625	11B,29	\$2,625	11B,29	\$2,625	\$1,485	
47	Lake Nokomis-Amelia Storm Water Pond	4,11B,24,27,30		\$625	4,11B,27,30	\$625	4,11B,27,30	\$18,125	4,11B,27,30	\$6,025	4,11B,27,30	\$6,025	4,11B,27,30	\$4,125	4,11B,27,30	\$5,025	4,11B,27,30	\$6,525	4,11B,27,30	\$6,525	4,11B,27,30	\$130,625	\$18,455	
48	Lake Nokomis-Gateway Storm Water Pond	4,11B,24,27,30		\$625	4,11B,27,30	\$625	4,11B,27,30	\$18,125	4,11B,27,30	\$6,025	4,11B,27,30	\$6,025	4,11B,27,30	\$4,125	4,11B,27,30	\$5,025	4,11B,27,30	\$6,525	4,11B,27,30	\$6,525	4,11B,27,30	\$130,625	\$18,455	
49	Lake Nokomis-Knoll Storm Water Pond	4,11B,24,27,30	11B,27	\$625	4,11B,27,30	\$625	4,11B,27,30	\$18,125	4,11B,27,30	\$6,025	4,11B,27,30	\$6,025	4,11B,27,30	\$4,125	4,11B,27,30	\$5,								