PRIOR LAKE SPRING LAKE WATERSHED DISTRICT

CAC Meeting Minutes

Date: 10/28/21
5:00 - 7:10 PM

Attendees:

CAC Members: 8 of 10 members present = 80% ***(>50%)***

☑ Christian Morkeberg (Chair)	☐ Woody Spitzmueller
☑ Christopher Crowhurst (SubCmChr)	☑ Matt Newman
☑ Jim Weninger	☑ Ben Burnett (Secretary)
☑ Matt Tofanelli	☑ Loren Hanson
☐ Maureen Reeder	☑ David Hagen

Staff: Joni Giese (District Administrator)

Board members:

Bruce Loney (CAC rep) Curt Hennes

Guests:

Wes Steffan (SLA)
Lisa Quinn (Spring Lake Township)

I. Pre-meeting Subcommittee Gatherings – Christopher Crowhurst

CAC Subcommittees met from 5:00 to 5:30 to discuss goals for the next 12 months

II. Convene meeting – 5:30 pm – Welcome — Chair Christian Morkeberg

III. Minutes & Agenda

a. September Minutes approved Motioned: Ben; Seconded: Christopher; passed
b. October Agenda approved Motioned: Christopher; Seconded: David; passed

IV. CAC Business

- Loren presented the new "New Member Orientation Packet" Update
  - The new packet was reviewed and discussed, everyone thought it was very good and the acronym list was great. Several edits were recommended: correct CAC acronym/title; add a link to the Watershed District Management Plan; "What is the CAC?" language to match the language from the charter;
- CAC Subcommittee Reports – working on goals for 2021 & re-alignment
  - Each Subcommittee reported their discussion and their goals for the next year. The goals for each are below, these were refined a bit after the meeting for clarity and focus by Christian and Christopher.
  - Subcommittees:
    - General Goal: Find experts and invite to present at a CAC meeting or multiple experts to create a panel discussion for a topic at a meeting or special session.
    - Shoreline restoration (David, Loren, Jim)
      - Document historical changes in lake shore and lake bottom topography.
      - Understand and educate CAC on Wave Science to understand impact on lake shore and water quality
      - Review current ordinance and regulations to see if they are current or need updating.

- Lake life and water quality (Matt T., Matt N, Maureen)
  - Understand impact of lakeshore restoration techniques on water quality
  - Investigate phosphorus removal via vegetation removal techniques
- Aquatic invasive species (Ben, Christian)
  - Assist in I-LIDS program evaluation
  - Help to create and AIS scorecard detailing each species and each lake situation *(plants & animals, good/bad, response, etc.)*
  - Assess watershed rapid response plan and policies on AIS
- Fish stocking (Loren, Christian, Matt Tofanelli)
  - Document recommendation for management of native fish species
  - Coordinate with watershed, DNR, and lake associations to ensure ongoing commitment to stocking
    - Watershed can only be involved if it is a water quality issue, DNR does some stocking, lake associations will need to do anything else, CAC can help document and coordinate
- Water Storage: (Maureen, Woody, Jim)
  - Study Upper watershed plan implementation plans impact on Spring Lake and Prior Lake water levels.
  - Investigate options for wetland banking for purpose of flood reduction and sediment and phosphorus reduction, includes discovery of Dept. Agriculture grants.

- CAC Officer Elections – January 2022 (Christian)
  - Chair, Vice-chair, Secretary
  - New position: Subcommittee Chair

V. Staff Project Updates - Joni

- District Rules Update
  - Joni presented a very informative talk about the PLSLWD rules and the process of getting them updated for the first time since 2003
    - ***see attachment #1***
  - District has 16 rules (A – P) that are triggered by identified development or construction activities, and enforced via a Permit Process and District Equivalency Agreements (with other jurisdictions). These rules are split into 2 groups: Procedures, and Activities.
  - These rules are how the PLSLWD Policy is put in to action. The PLSLWD Policy Statement is: Protect the public health, welfare, and natural resources of the District by regulating the improvement or alteration of land and waters within the District to:
    - Reduce the severity and frequency of high water
    - Preserve floodplain and wetland storage capacity
    - Improve the chemical and physical quality of surface waters
    - Reduce sedimentation District Rules: Policy Statement
    - Preserve the hydraulic and navigational capacities of waterbodies
    - Promote and preserve natural infiltration areas
    - Preserve natural shoreline features

- Minimize future public expenditures on problems caused by the improvement or alteration of land and waters Staffing Updates

- Staffing Updates
  - 1 position filled, will start soon.
  - Open Position (Watershed Regulations Coordinator) is not getting desired response, the position description is being reworked and will be reposted soon.
- Sutton Lake Management Plan Introduction – postponed to Dec. 9th meeting

VI. Board Liaison Updates & Requests to CAC – Bruce

- Bruce presented a summary of the Upper Watershed Blueprint plan, background, and the selected the 6 projects that are part of the selected "Option B" - ***see attachment #2***
  - Sutton Lake Iron Enhanced Sand Filter
  - Spring West Iron Enhanced Sand Filter
  - Buck Lake East Wetland Enhancement
  - Swamp Lake Iron Enhanced Sand Filter
  - Buck Lake Chemical Treatment System
  - County Ditch 13 Chemical Treatment System

VII. October Workshop & Board Meeting – attendee: Jim

a. Nov. Board Meeting – attendee: Woody
b. CAC Member Report

1. Budget items
2. Scott County LIDAR funding
3. Conservation easements
4. Approved Sutton Lake Management Plan
5. Staffing issues

VIII. Adjourn

a. Motioned: Loren; Seconded: David; passed

IX. Upcoming Meetings:

a. Board Meeting: Tues, 11-9-21, 6:00 pm
b. CAC Meeting: Thurs, 12-9-21, 6:30 pm (subcommittees meet at 6:00 pm)

Attachment #1 - Staff Updates

Staff Updates

PLSLWD

1

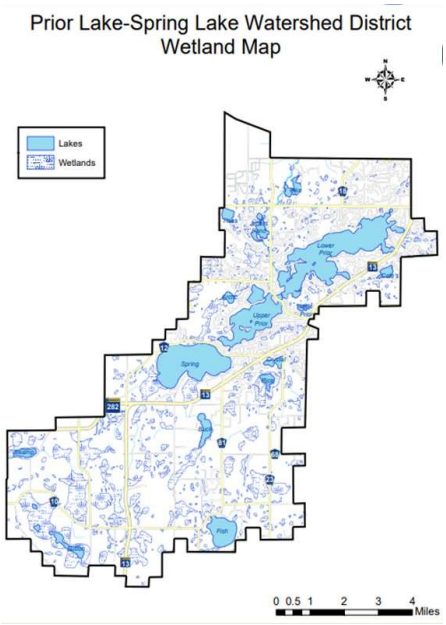
District Rules: Policy Statement

Protect the public health, welfare, and natural resources of the District by regulating the ***improvement or alteration of land and waters*** within the District to:

2

District Rules: Policy Statement

- Reduce the severity and frequency of high water
- Preserve floodplain and wetland storage capacity
- Improve the chemical and physical quality of surface waters
- Reduce sedimentation



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District Rules: Policy Statement

- Preserve the hydraulic and navigational capacities of waterbodies
- Promote and preserve natural infiltration areas
- Preserve natural shoreline features

4

District Rules: Policy Statement

- Minimize future public expenditures on problems caused by the improvement or alteration of land and waters

5

Rule Revisions Overview

- 2003 – Last substantively revised
- 2012-2013 – Significant rule revision planning; revisions never realized
- 2015 – Revisions per the State's Municipal Separate Storm Sewer System (MS4) Permit (required an increased volume control standard)

6

Rule Revision Goals

- Bring standards into agreement with current state guidance and advances in stormwater management science
- Improve water quality while providing flexibility to developers to incorporate new techniques and technologies
- Increase requirements and incentives for volume management

7

Rule Revision Goals

- Promote consistency with other regulations (e.g., NPDES Construction Permit) to minimize the regulatory burden on developers
- Coordinate regulatory standards and requirements with implementing partners

8

Current Rule Update Schedule

- 2018-2020 – Present Revision Process
  - 5 TAC Meetings
  - 3 Road Authority Meetings
  - 3 Board Workshops
  - Public Hearing – October 8, 2020
  - 45-day Review Period – ended October 28, 2020

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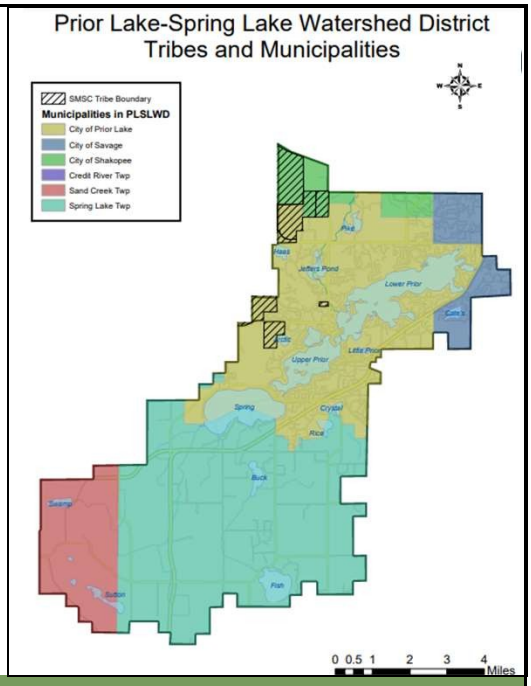
District Rules

- District has 16 rules (A – P)
- Rules are triggered by identified development or construction activities
- Rules are enforced via a Permit Process
- District Equivalency Agreements



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District Rules: Procedures

- Rule A – Definitions
- Rule B – Procedural Requirements
- Rule K – Fees
- Rule L – Security
- Rule M – Variances
- Rule N – Appeals
- Rule O – Enforcement

11

District Rules: Activities

- Rule C – General Standards
- Rule D – Stormwater Management
- Rule E – Erosion and Sediment Control
- Rule F – Floodplain Alteration
- Rule G – Wetland Activities
- Rule H – Bridge and Culvert Crossings
- Rule I – Drainage Alterations
- Rule J – Buffer Strips
- Rule P – Illicit Discharge

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Next Steps

- Share final rules with
- Board of Managers approval
- Establish equivalency agreements with agency partners

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Questions?

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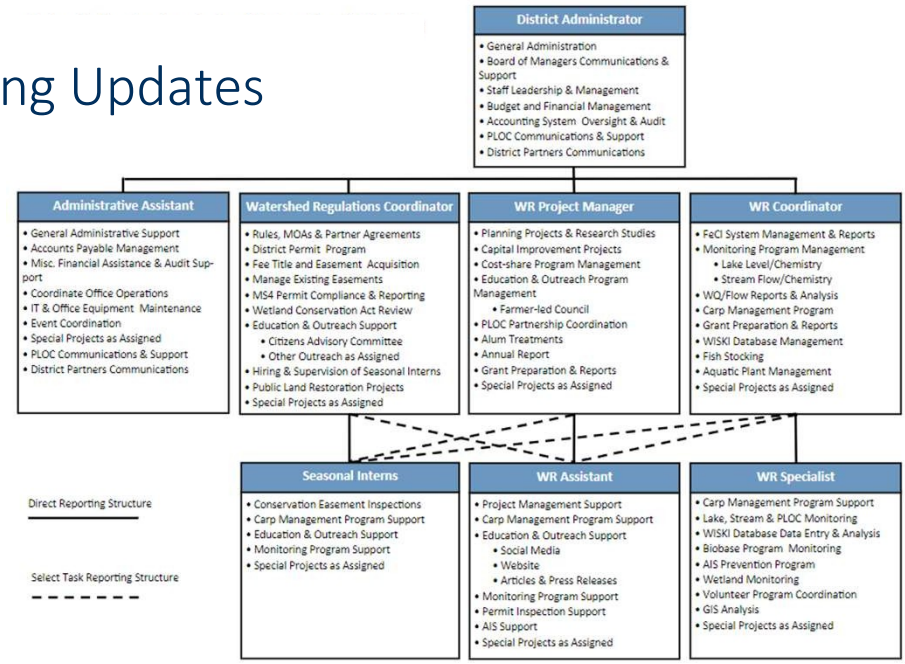
Staffing Updates



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Sutton Lake Management Plan

16

Attachment #2 - Upper Watershed Blueprint plan

PRIOR LAKE
SPRING LAKE
WATERSHED DISTRICT

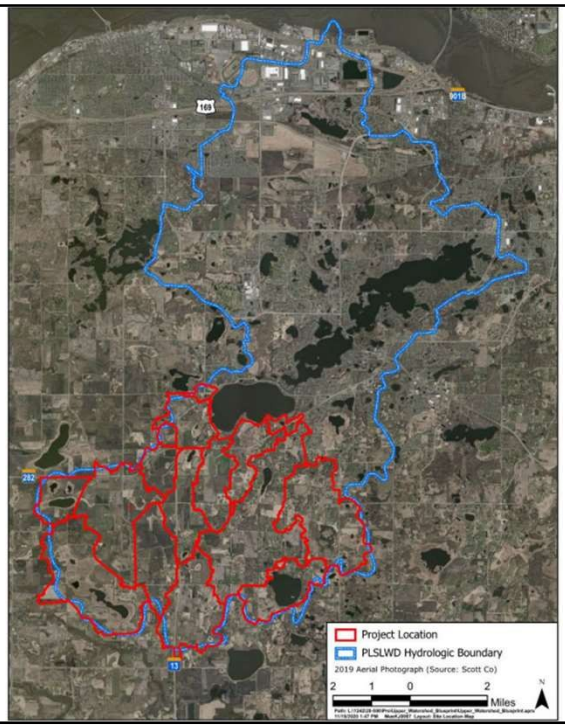
Upper Watershed Blueprint CAC Presentation

October 28, 2021

1

Project Area

- 12,760-acre tributary to Spring Lake
- 2/3 of total tributary area to Spring, Upper and Lower Prior Lakes



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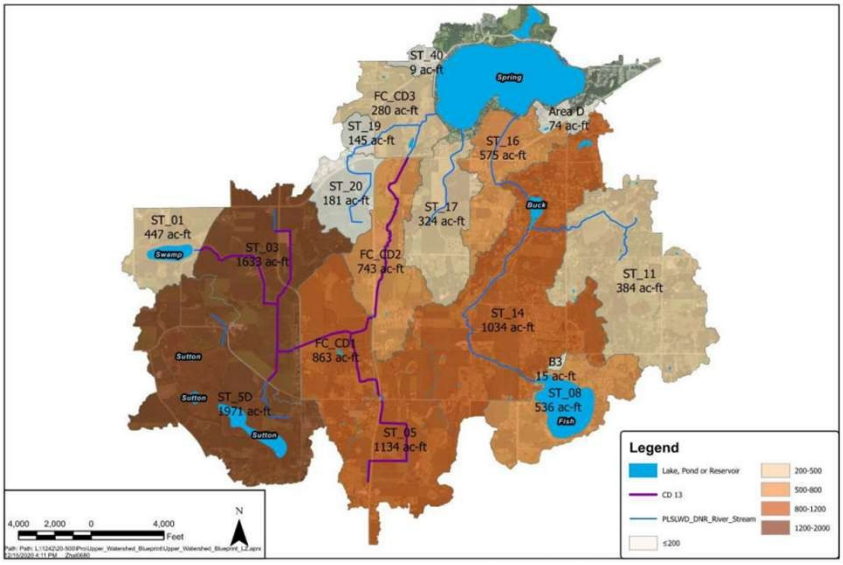
Project Drainage

- Upper Watershed is drained primarily through 2 channels
  - Ditch 13 System
  - Buck Lake System



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Project Background

- Spring Lake and Upper Prior Lake are designated as Impaired Waters (total phosphorous) by the MPCA
- Runoff during periods of high rainfall impacts flooding on Spring, Upper & Lower Prior Lakes

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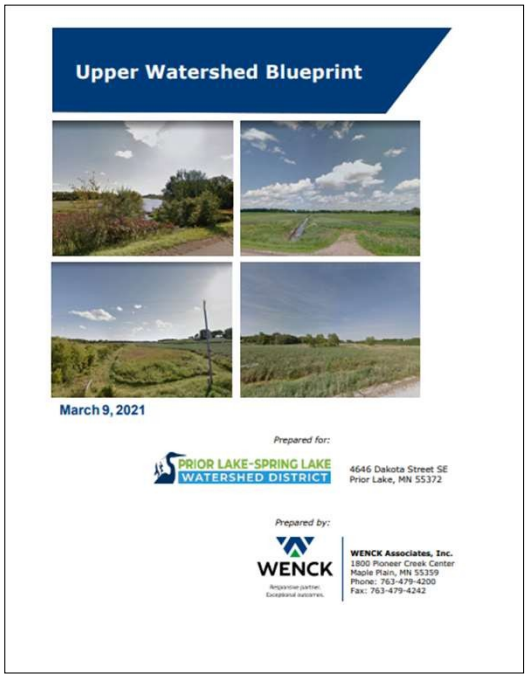

Project Intent

Goal: Comprehensive approach for stormwater management in the upper watershed

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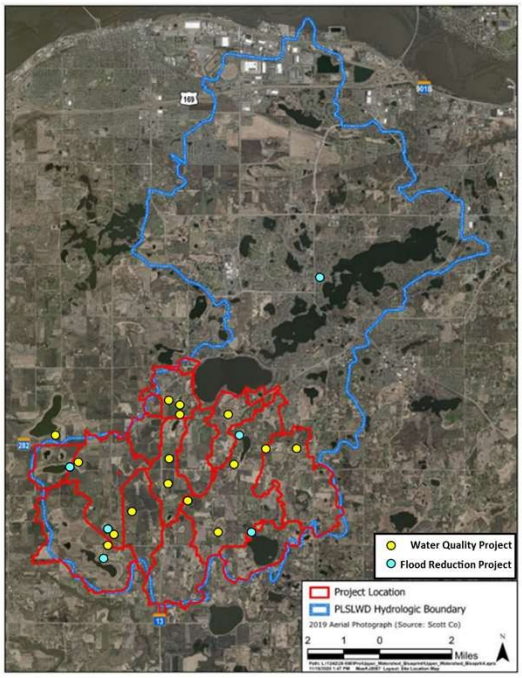

Study Outcomes

- Prioritized list of 17 projects to:
  - Improve Water Quality
  - Reduce Flooding

6

Near-term Implementation Projects

- In July 2021, 6 options of grouped projects were analyzed. Managers selected "Option 2"
- Evaluation Factors:
  - % of TMDL Achieved
  - Cost/lb of Phosphorus Removed
  - Construction and Lifecycle Costs

Tally of Project Grouping Options

Upper Watershed Blueprint

16-Jun-21

Option #	Description	Total lbs TP/Yr	% of TMDL	Cost/Lb	Lifecycle Cost	Construction & Staff Costs	# projects	Flood Project (2)	Rank
1	Blueprint Recommendation	2,621	89%	$ 225	$ 8,836,000	6,859,200	4		C
2	Blueprint w lesser cost substitutes for FeCl 2	2,712	92%	$ 194	$ 7,896,000	6,342,500	6	X	A
3	Ferric Chloride Alt 1 + Low Cost Projects	2,751	93%	$ 201	$ 8,296,000	6,658,700	7	X	B
4	Blueprint Recommended Grouping Exceeding TMDL (1)	2,906	98%	$ 216	$ 9,435,000		6	X	
5	Fewest Number of Projects - No treatment trains	2,488	84%	$ 171	$ 6,372,000		5		
6	Blueprint Alternate 3	2,489	84%	$ 197	$ 7,366,000		5	X	

Notes

1 Original Calculation exceeded TMDL reduction of 2959 lbs/yr. Treatment train correction reduced TP loading to slightly less than TMDL.

2 This scenario also includes a flood control project (Buck Lake East Wetland Enhancement)

7

Near-Term Projects – Option B

Project	Phosphorous Reduction (lbs/yr)	Treatment Train TP (lbs/yr)	Flood Reduction (feet)	Phosphorous Reduction ($/lb)	Lifecycle Cost	Scoring Matrix Rank
Water Quality Projects						
1) Sutton Lake Iron-Enhanced Sand Filter	735	735	0	$166	$1,836,000	2
3) Swamp Lake Iron-Enhanced Sand Filter	223	223	0	$159	$530,000	7
6) Buck Lake East Wetland Enhancement (2)	100	100	0.1	$119	$180,000	3
12) Spring West Iron-Enhanced Sand Filter	249	249	0	$112	$419,000	1
13) Buck Lake Chemical Treatment System	793	729	0	$204	$2,431,000	8
14) County Ditch 13 Chemical Treatment System	1,062	676	0	$157	$2,500,000	5
		2,712		$ 194	$ 7,896,000	

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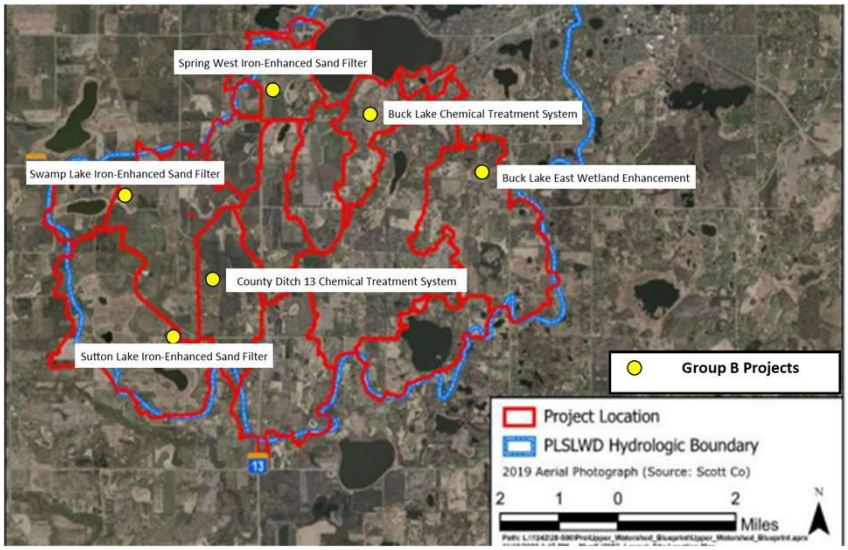
Individual Projects



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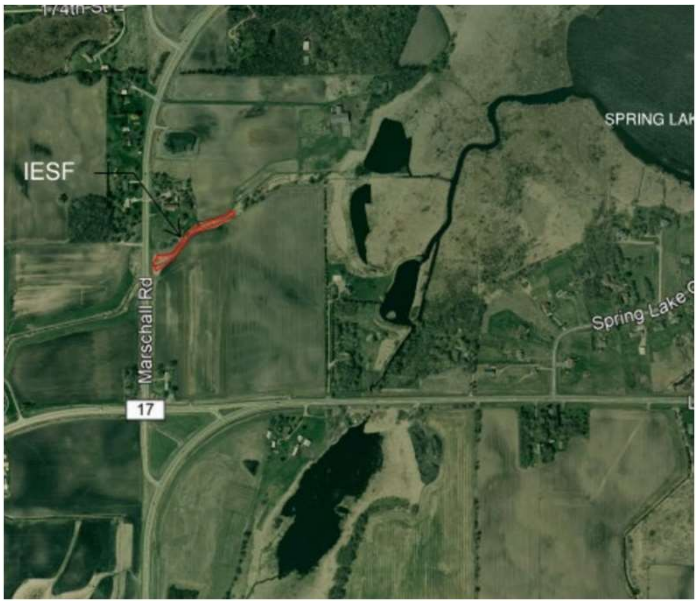
Sutton Lake Iron-Enhanced Sand Filter

	Estimated Cost
Construction	$1,406,000
PLSLWD Staff	$32,000
Operations & Maintenance (30 years)	$183,000
Total	**$1,621,000**

10

Spring West Iron-Enhanced Sand Filter

	Estimated Cost
Construction	$367,000
PLSLWD Staff	$26,000
Operations & Maintenance (30 years)	$152,000
Total	**$545,000**



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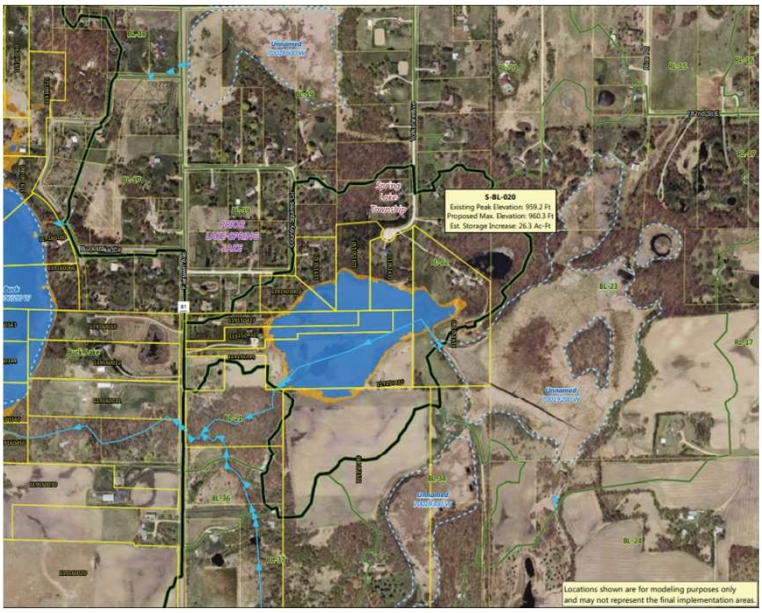
Buck Lake East Wetland Enhancement

	Estimated Cost
Construction	$192,000
PLSLWD Staff	$28,000
Operations & Maintenance (30 years)	$31,000
Total	**$251,000**



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Swamp Lake Iron-Enhanced Sand Filter

	Estimated Cost
Construction	$500,000
PLSLWD Staff	$30,000
Operations & Maintenance (30 years)	$122,000
Total	**$652,000**

13

Buck Lake Chemical Treatment System

	Estimated Cost
Construction	$1,579,000
PLSLWD Staff	$40,000
Operations & Maintenance (30 years)	$2,143,000
Total	**$3,762,000**

14

County Ditch 13 Chemical Treatment System

	Estimated Cost
Construction	$1,779,000
PLSLWD Staff	$40,000
Operations & Maintenance (30 years)	$1,828,000
Total	**$3,647,000**

15

Cost Summary

- Implementation Funding Sources:
  - District Levy
  - Grants
  - Debt Service (to expedite implementation)

Project	Estimated Cost (with O&M)	Estimated Cost (without O&M)
Sutton Lake Iron Enhanced Sand Filter	$1,621,000	$1,438,000
Spring West Iron Enhanced Sand Filter	$545,000	$393,000
Buck Lake East Wetland Enhancement	$251,000	$220,000
Swamp Lake Iron Enhanced Sand Filter	$652,000	$530,000
Buck Lake Chemical Treatment System	$3,762,000	$1,619,000
County Ditch 13 Chemical Treatment System	$3,647,000	$1,819,000
Total	**$10,478,000**	**$6,019,000**

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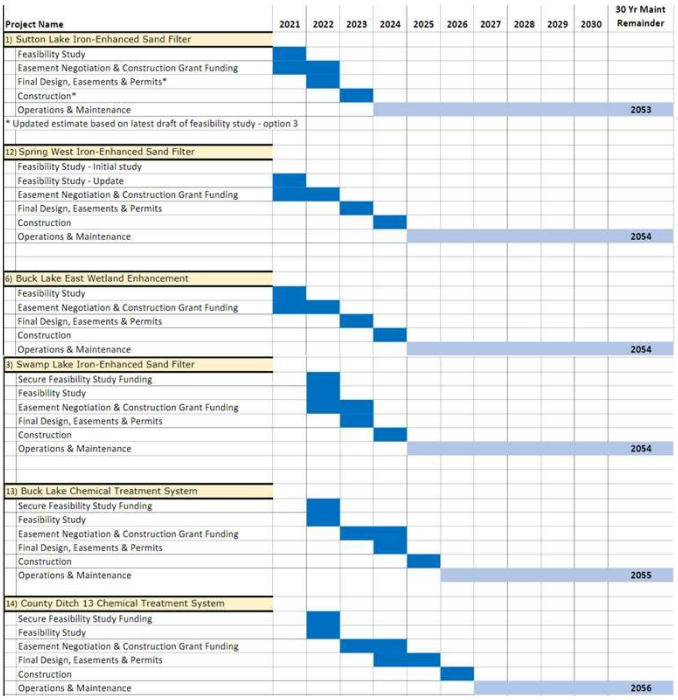

Project Name	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	30 Yr Maint Remainder
1) Sutton Lake Iron-Enhanced Sand Filter											
Feasibility Study											
Easement Negotiation & Construction Grant Funding											
Final Design, Easements & Permits*											
Construction*											
Operations & Maintenance											2053
* Updated estimate based on latest draft of feasibility study - option 3											
12) Spring West Iron-Enhanced Sand Filter											
Feasibility Study - Initial study											
Feasibility Study - Update											
Easement Negotiation & Construction Grant Funding											
Final Design, Easements & Permits											
Construction											
Operations & Maintenance											2054
6) Buck Lake East Wetland Enhancement											
Feasibility Study											
Easement Negotiation & Construction Grant Funding											
Final Design, Easements & Permits											
Construction											
Operations & Maintenance											2054
3) Swamp Lake Iron-Enhanced Sand Filter											
Secure Feasibility Study Funding											
Feasibility Study											
Easement Negotiation & Construction Grant Funding											
Final Design, Easements & Permits											
Construction											
Operations & Maintenance											2054
13) Buck Lake Chemical Treatment System											
Secure Feasibility Study Funding											
Feasibility Study											
Easement Negotiation & Construction Grant Funding											
Final Design, Easements & Permits											
Construction											
Operations & Maintenance											2055
14) County Ditch 13 Chemical Treatment System											
Secure Feasibility Study Funding											
Feasibility Study											
Easement Negotiation & Construction Grant Funding											
Final Design, Easements & Permits											
Construction											
Operations & Maintenance											2056

Implementation Steps & Phasing

17

Questions?

PRIOR LAKE-SPRING LAKE WATERSHED DISTRICT

18